PROCESS BOOK

FEEDING THE WORLD

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WEEK 5

FEEDING THE WORLD

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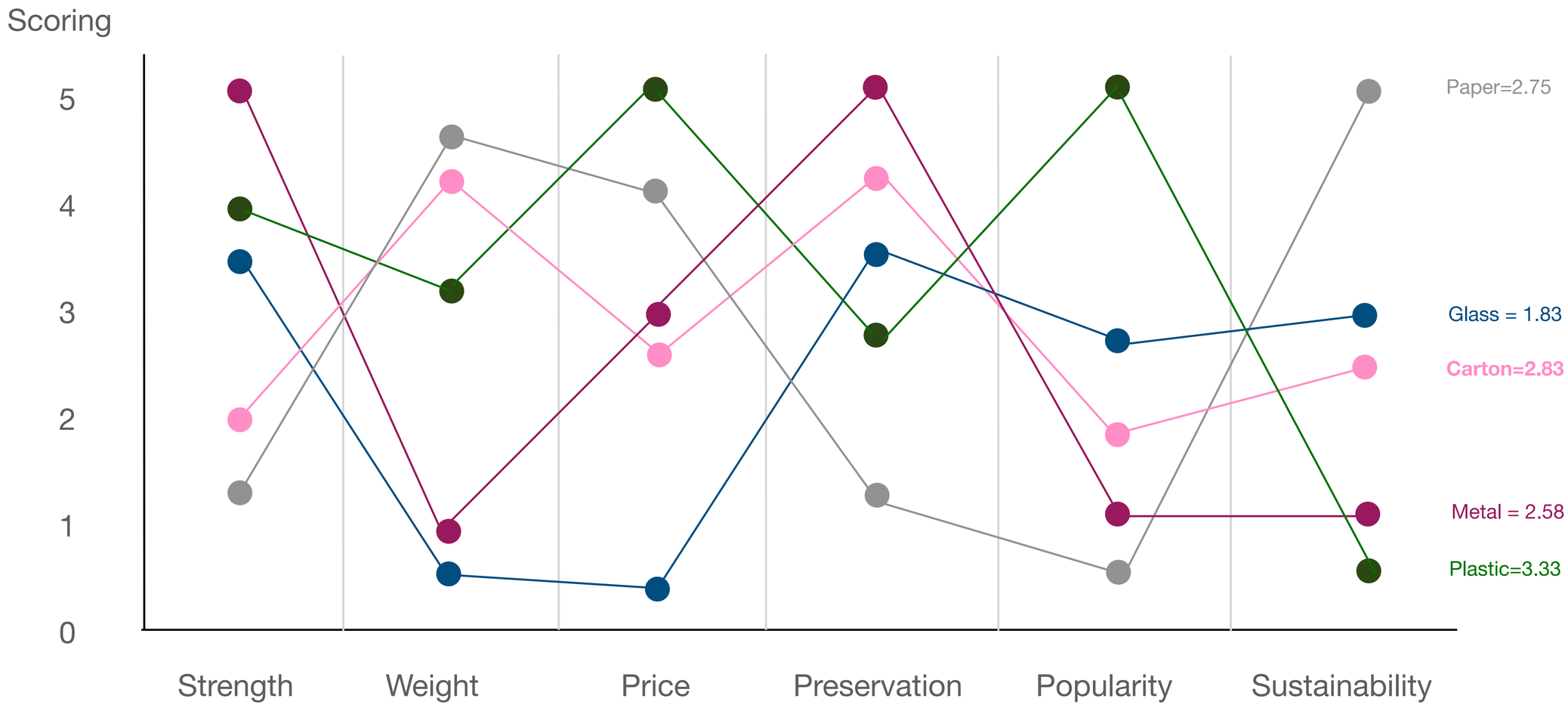
MATERIALS STUDIES



COUNTRY SELECTION

- Different Aspects of the world
- Cover different economic status

COUNTRY

VIETNAM

- Low-income developing country
- Very Populated
- Fast economic growth, growing middle class
- Tropical climate/ flooding
- Strong tertiary industry, low labor cost
- Export electrical and electronic products(Samsung), coffee, textiles, and rice

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COUNTRY

MOROCCO

- Low-income developing country
- Predominant religion: Islam
- Slow economic growth
- Maturing retail market
- Tropical climate/ mediterranean climate
- Strong tourist industry
- Low labor cost
- Low exporting rate

COUNTRY

ZAMBIA

- Least developed country
- Rapid population growth
- Fastest growing economies
- 56.48% rural population
- Extreme rural poverty
- Food loss
- Seasonal poverty
- Heavily agricultural inclined

COUNTRY

UNITED STATES

- Highly developed country
- Third most populous nation in the world
- World's leading economic and military power
- high level of human development
- well-developed retail market
- mixed cultural country

COUNTRY

CHINA

- Developing country
- Upper-middle-income country
- Fastest growing economies
- Large population
- Largest exporter
- Highly collectivist culture

OVERALL DIRECTION

Food

Lifestyle

Climate

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Food

COUNTRY

VIETNAM

VIETNAMESE CUISINE

A huge variety of noodle soups,
Rich broth

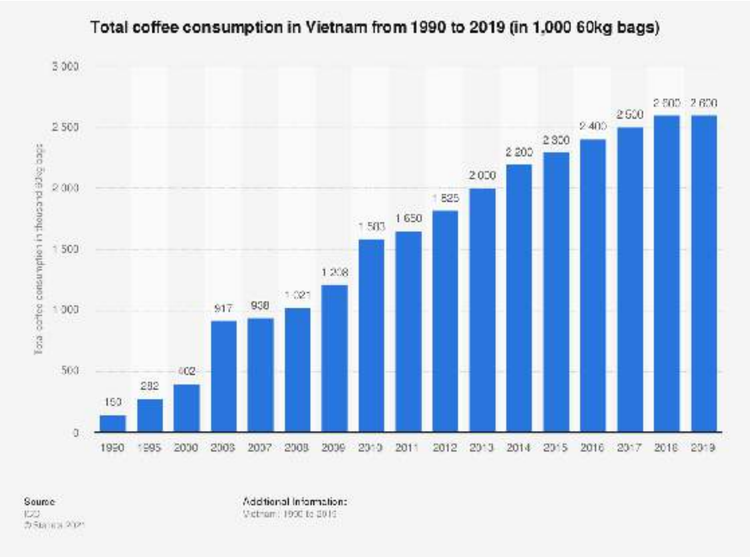
Dipping sauce, shrimp paste, fish sauce,
bean sauce

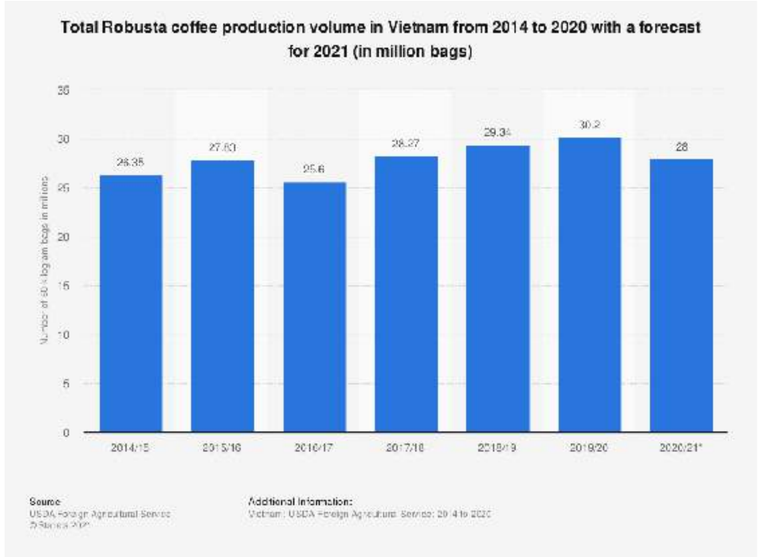
- Reliance on condiments and fresh food
- Minimal use of dairy and oil

Vietnamese curry

Tofu is widely used

VIETNAM | COFFEE INDUSTRY





- Vietnam is among the leading coffee producing countries

VIETNAMESE COFFEE

Vietnam dripping coffee uses Robusta coffee and sweetened condensed milk.

Vietnam egg coffee uses egg yolk and condensed milk mixture.

- Condensed milk is heavily used in Vietnamese coffee.

COUNTRY

MOROCCO

MOROCCO | FOOD

- Eat with hands
- People eat together from one plate
- Love to drink tea
- Bread is their main food

MOROCCO | TRADITIONAL FOOD

Preserved olive & lemon

Argan oil

Moroccan hot tea

Preserved food from Morocco

https://www.casablancamarket.com/collections/moroccan-condiments
https://www.thespruceeats.com/moroccan-foods-to-bring-home-2394281

COUNTRY

ZAMBIA

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ZAMBIA | NSHIMA

- Thick porridge made from finely ground corn meal
- Served with relish
- Eat with hand
- Indentation in the ball, scoop up relish

COUNTRY

UNITED STATES

UNITED STATES | FOOD

- Fast food
- Take out food & drinks

COUNTRY

CHINA

CHINA | Cantonese soup culture

- The soup culture is popular among people aged 40 above
- Millennials and Gen Z don’t have sufficient time to drink soup

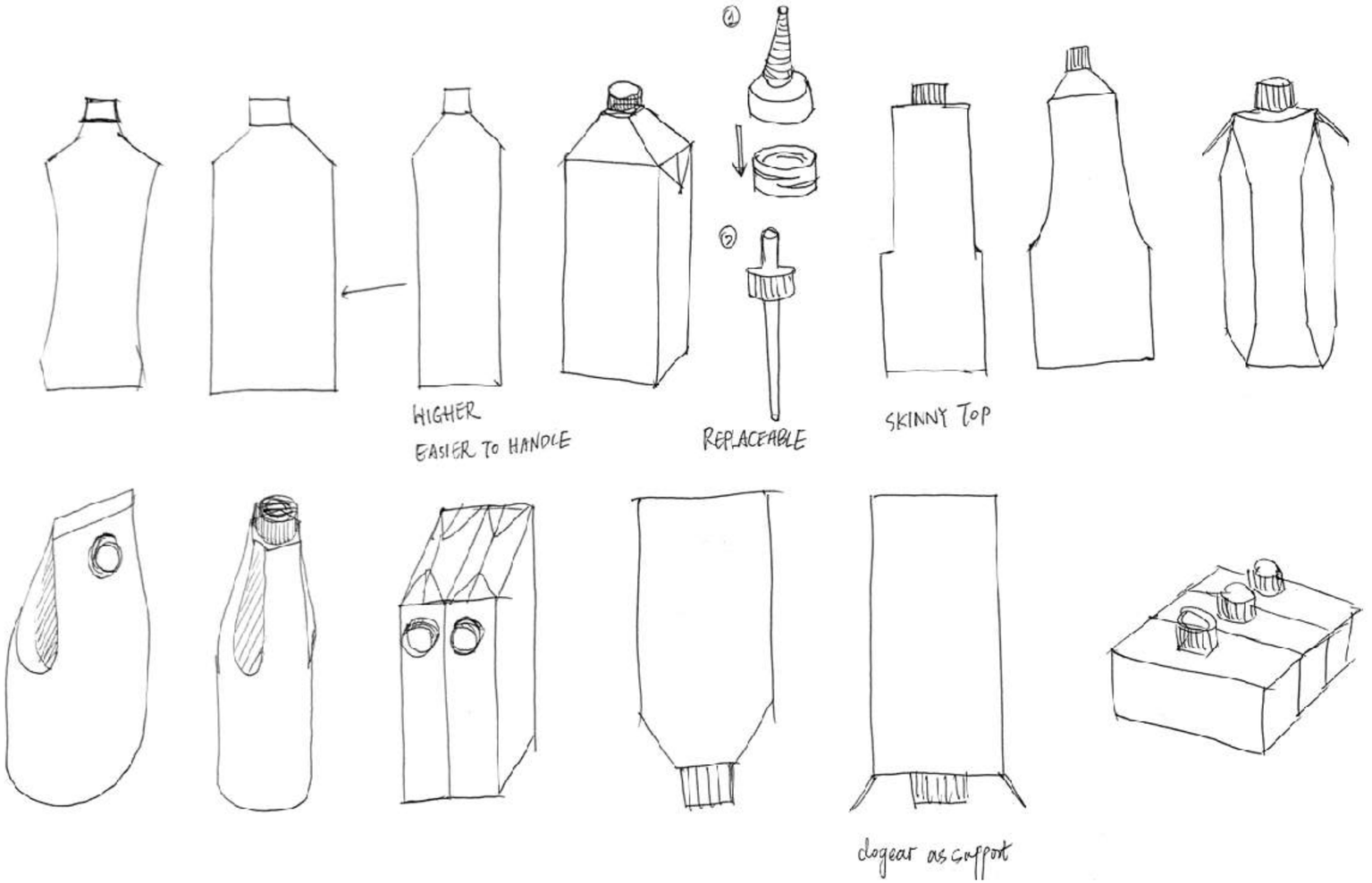
CHINA | Sichuan hot pot

- Many hot pot stores close during the pandemic
- Home-made hot pot
- DIY dipping sauce

CHINA | Sanya coconut culture

- Sanya in Hainan province, China is famous for its coconut
- Not able to finish every time
- Difficult to recycle

VIETNAM



Vietnamese nauce

- Compared to milk, sauce is less fluid, and its package needs firmer handle design.

- Think about multi-pack and unconventional orientations.

VIETNAM

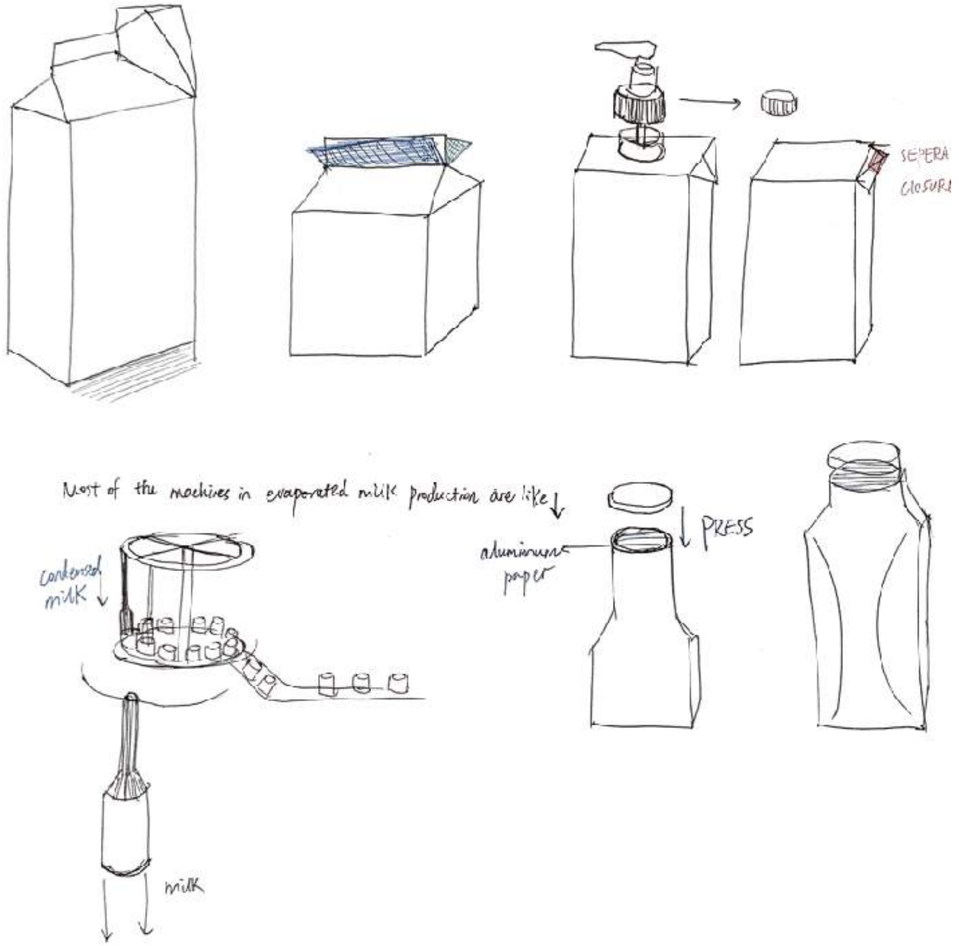
Squeeze

VIETNAM

Easy to hold

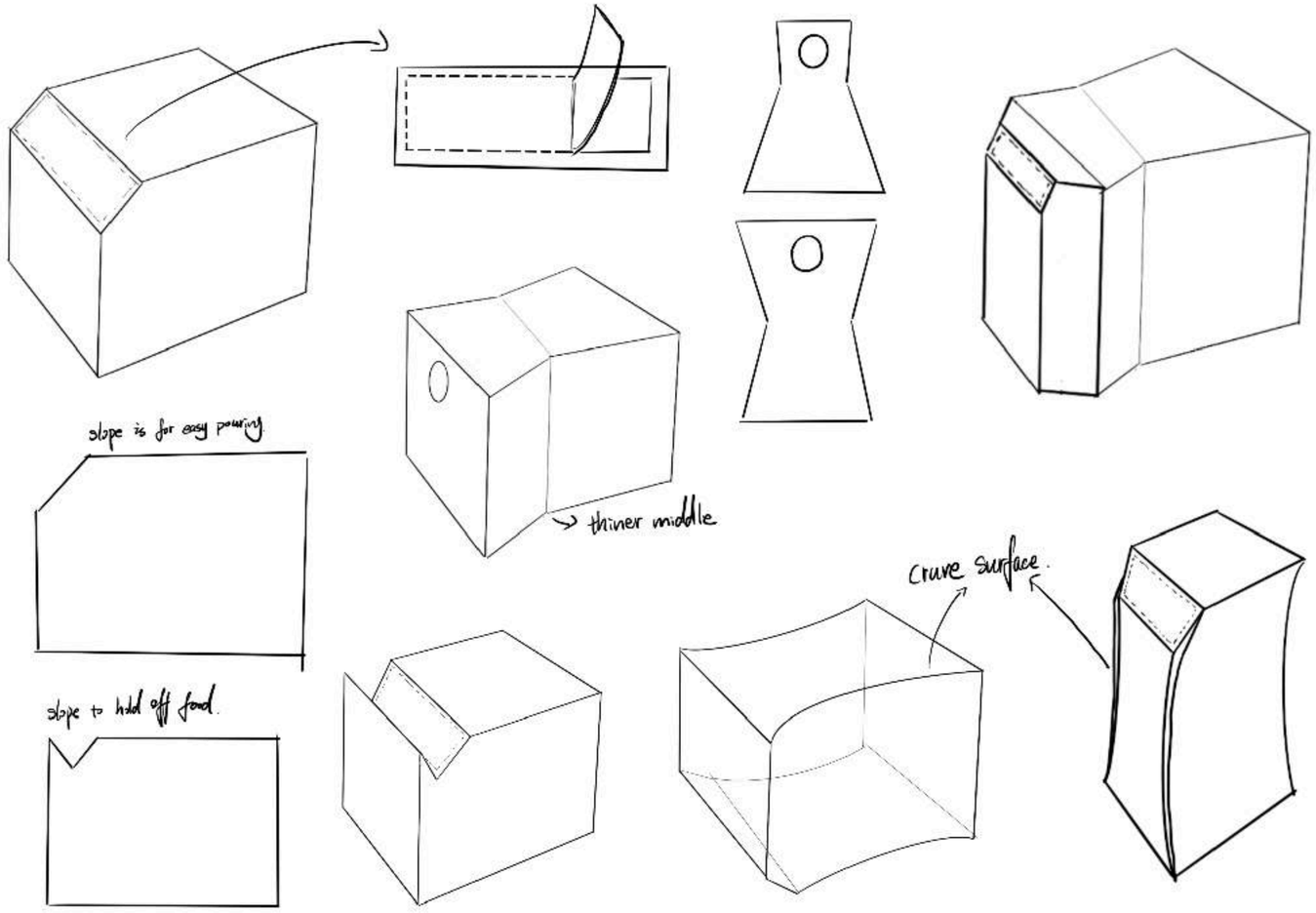
VIETNAM

Egg coffee



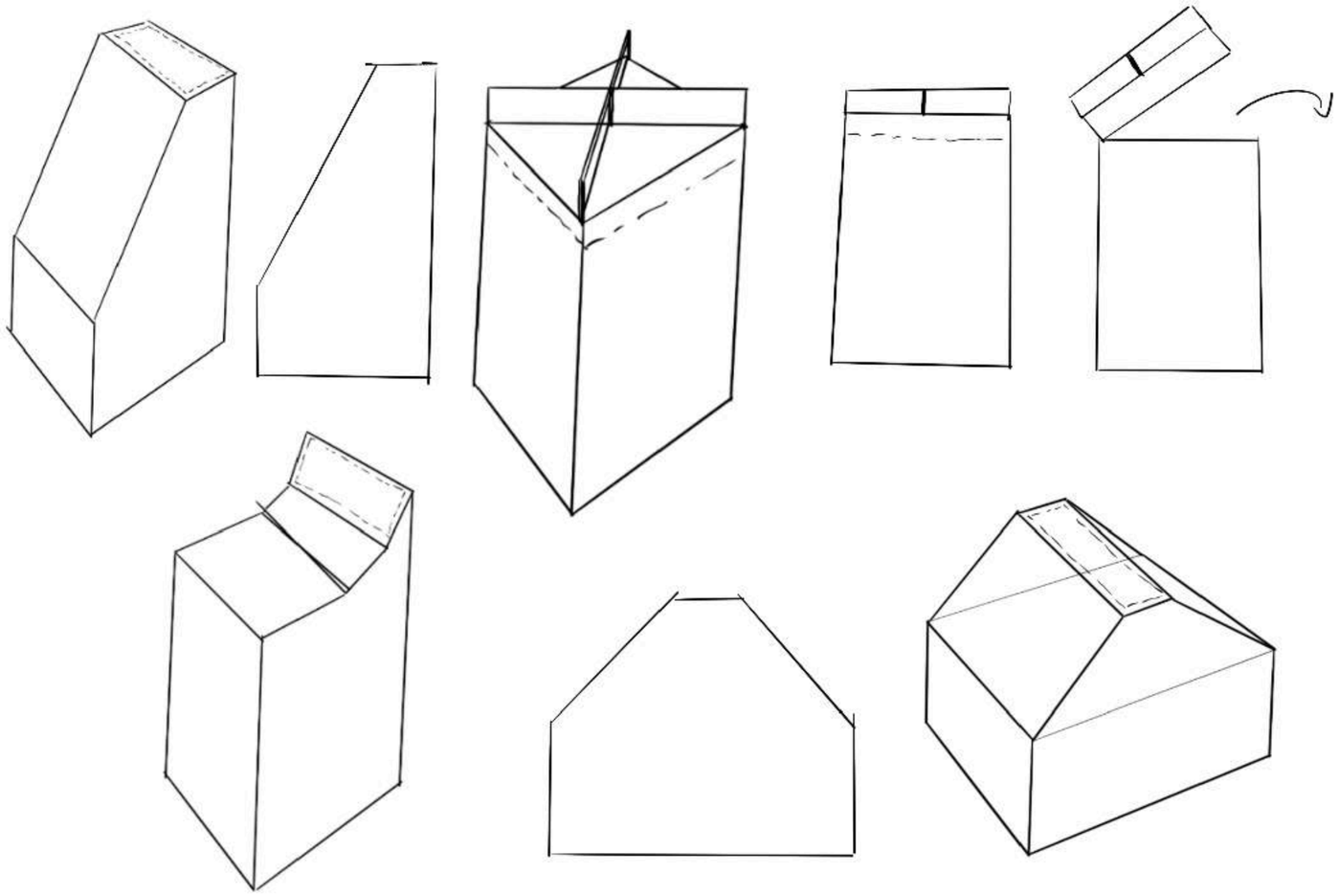
Vietnamese
Condensed
milk

MOROCCO



- better grabbing solution for preserved food carton without any closures.

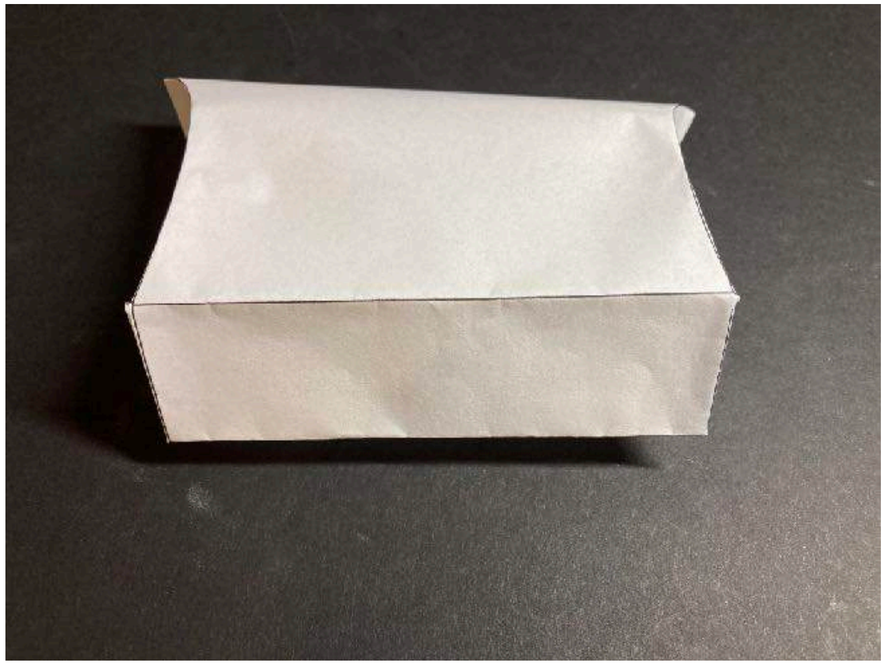
MOROCCO

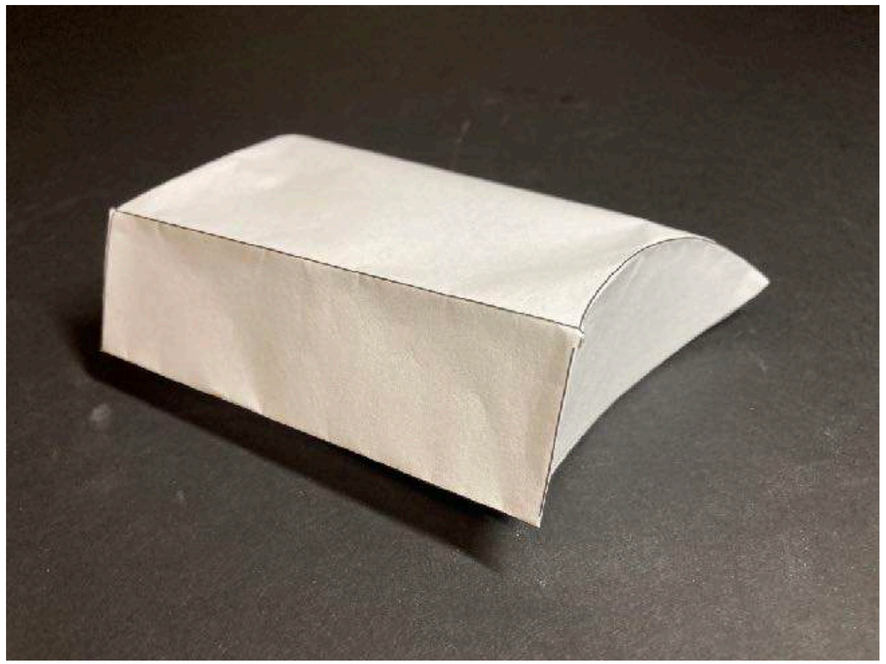


- a thiner and taller design

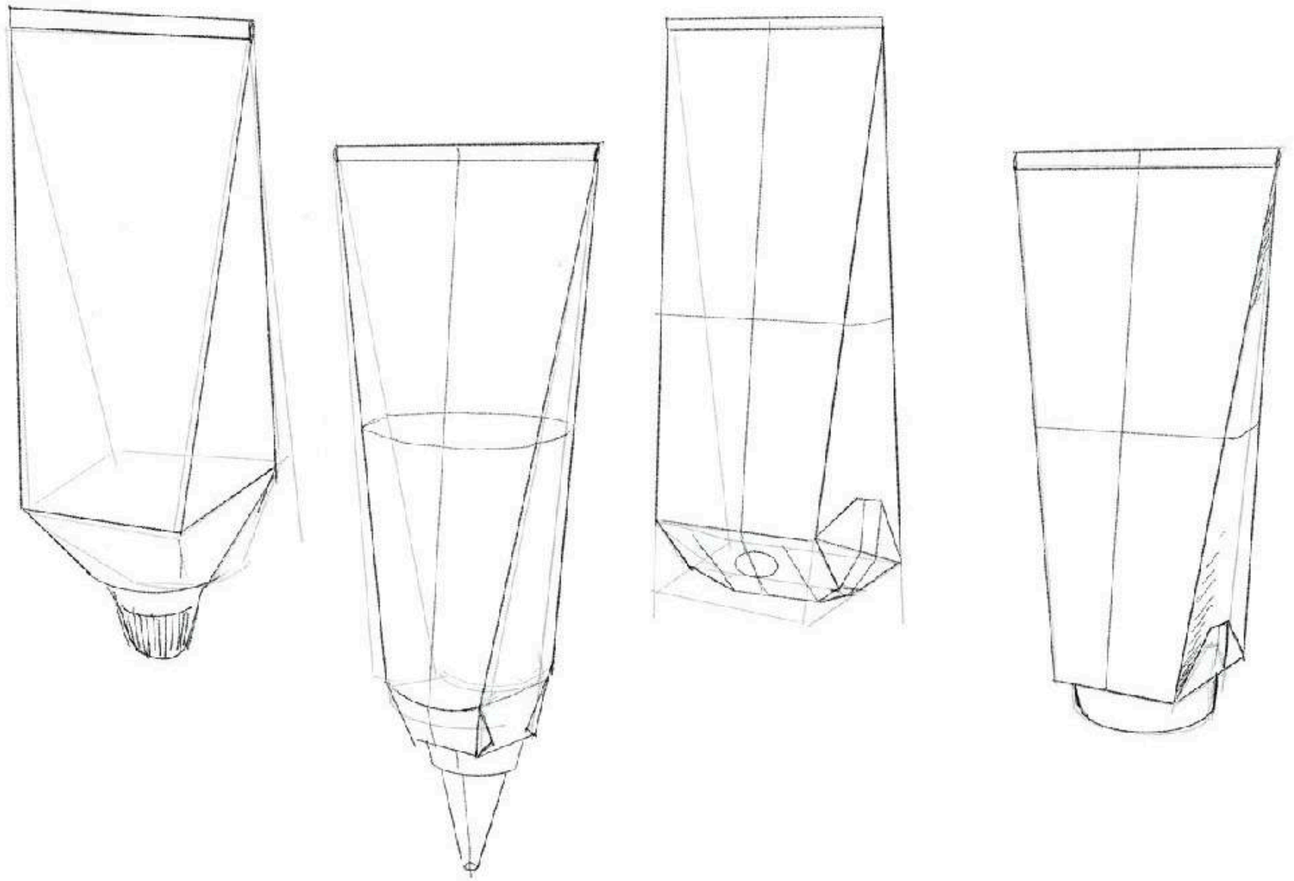
- smaller top and bigger opening to help pouring out food easily

MOROCCO



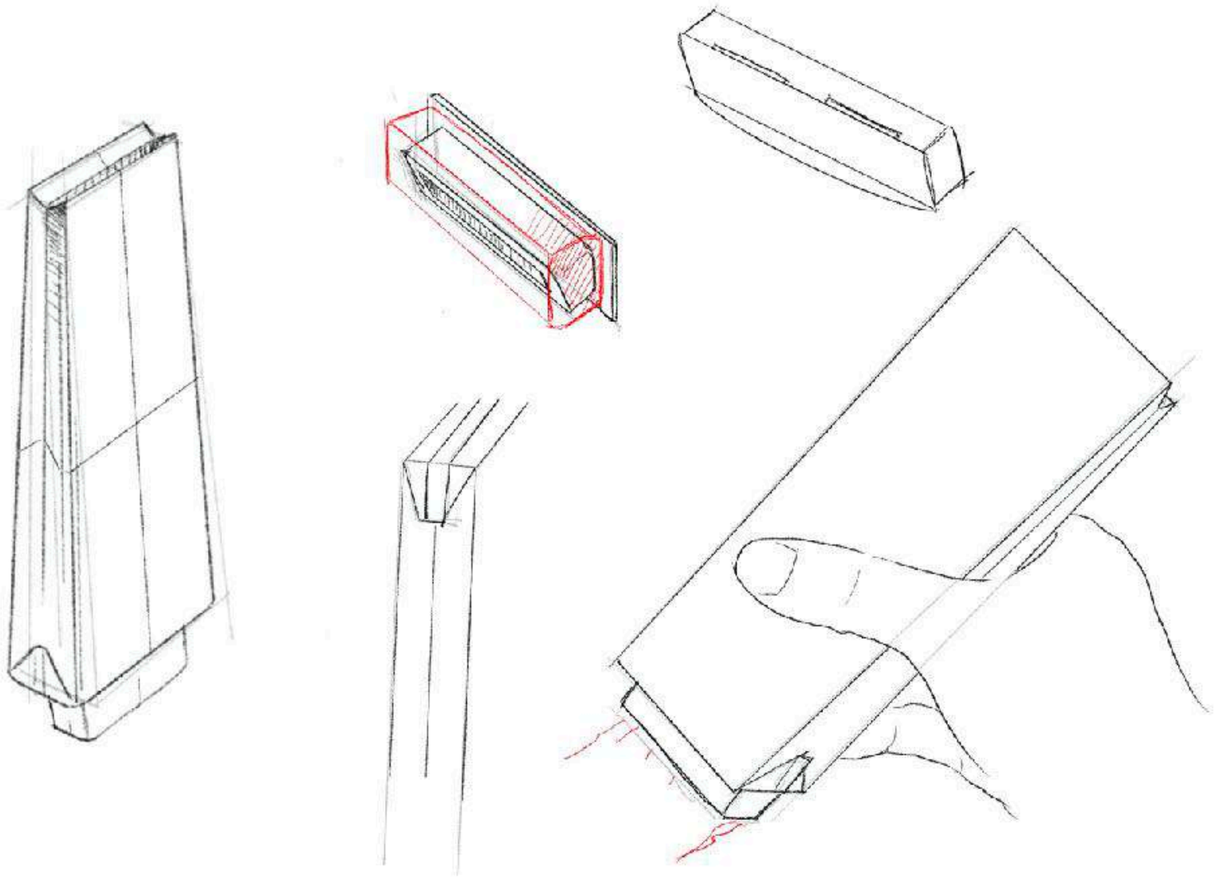


ZAMBIA



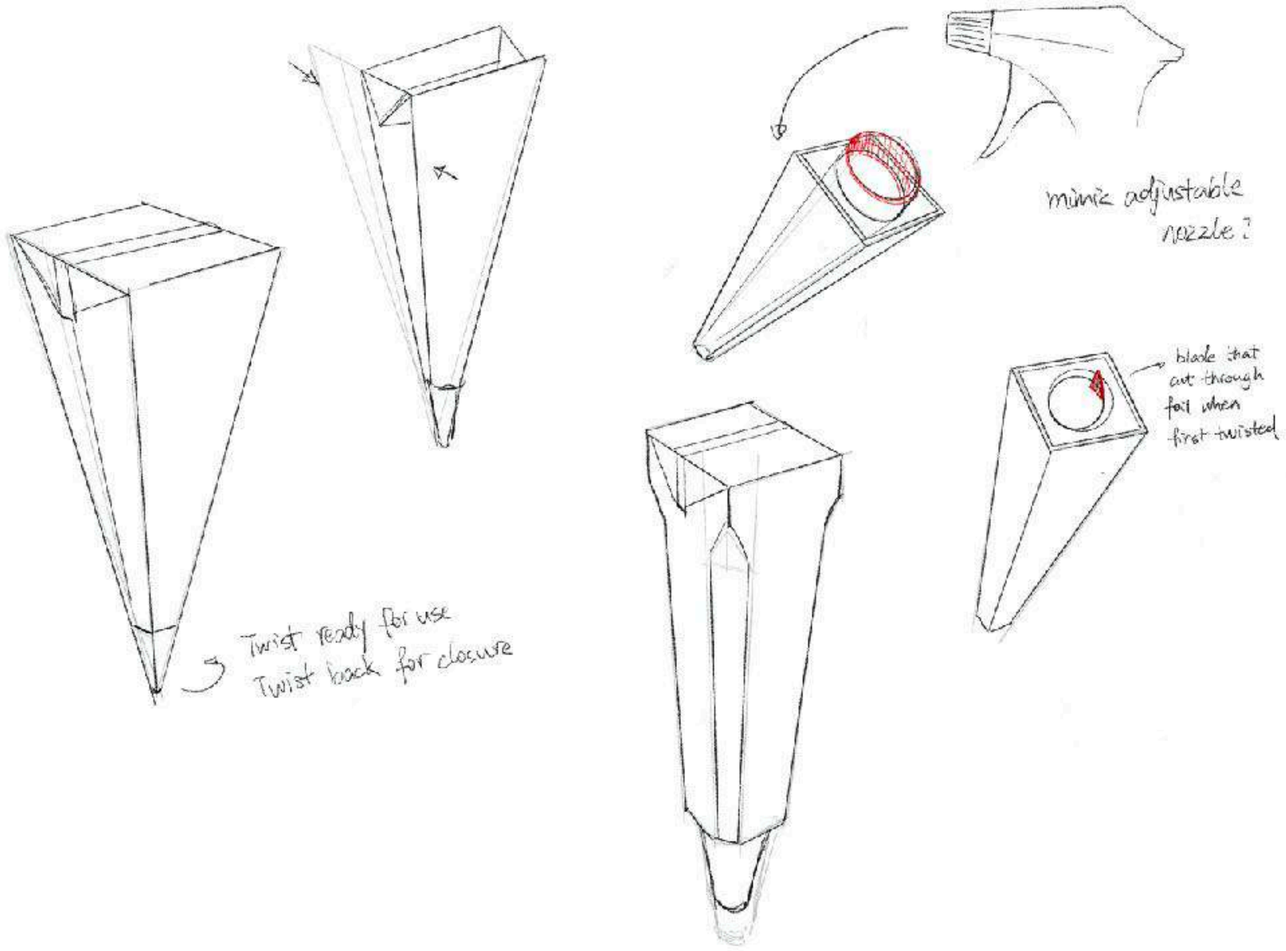
- For packaging relish
- Use with one hand

ZAMBIA



- Larger closure for more efficient use

ZAMBIA

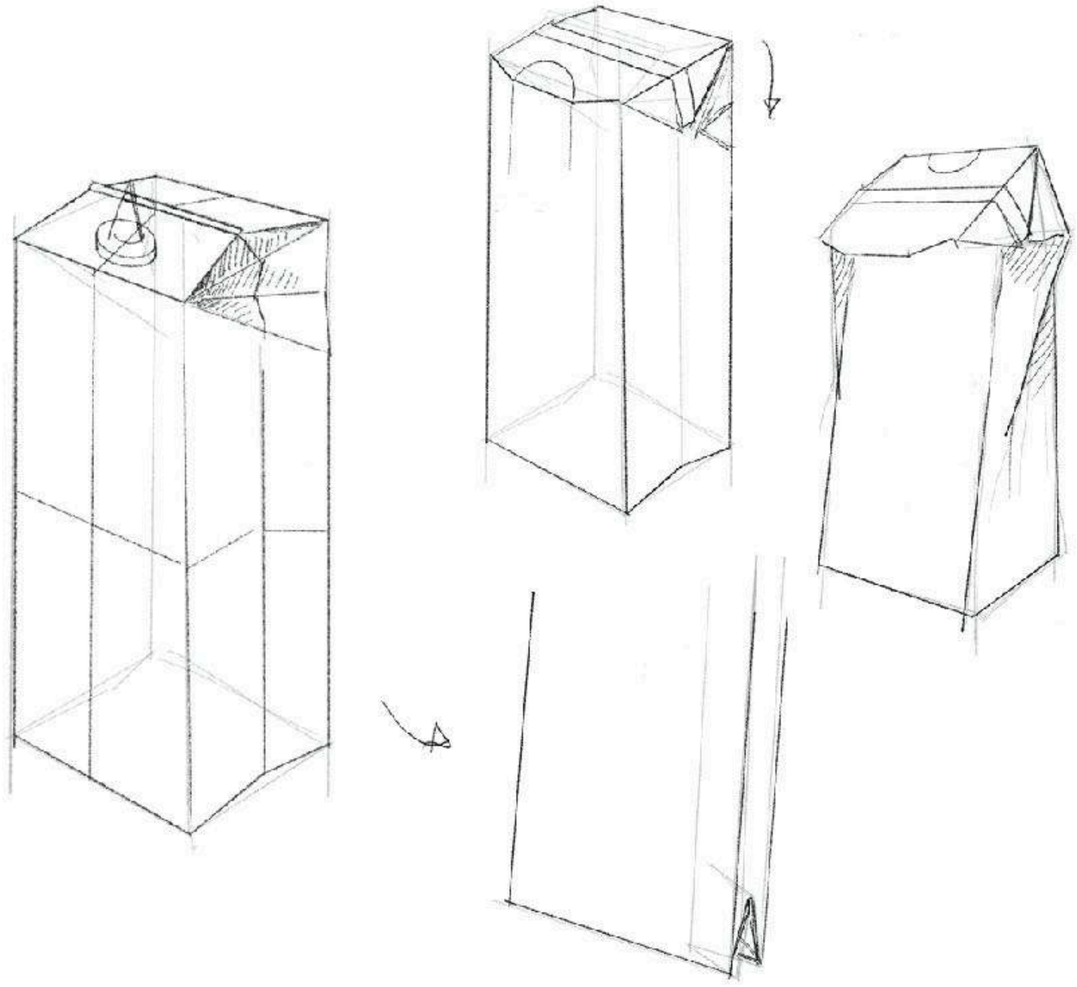


- Able to fold flat to consume all the contents
- Adjustable nozzle?

ZAMBIA

ZAMBIA

ZAMBIA



- Able to fold flat to consume all the contents

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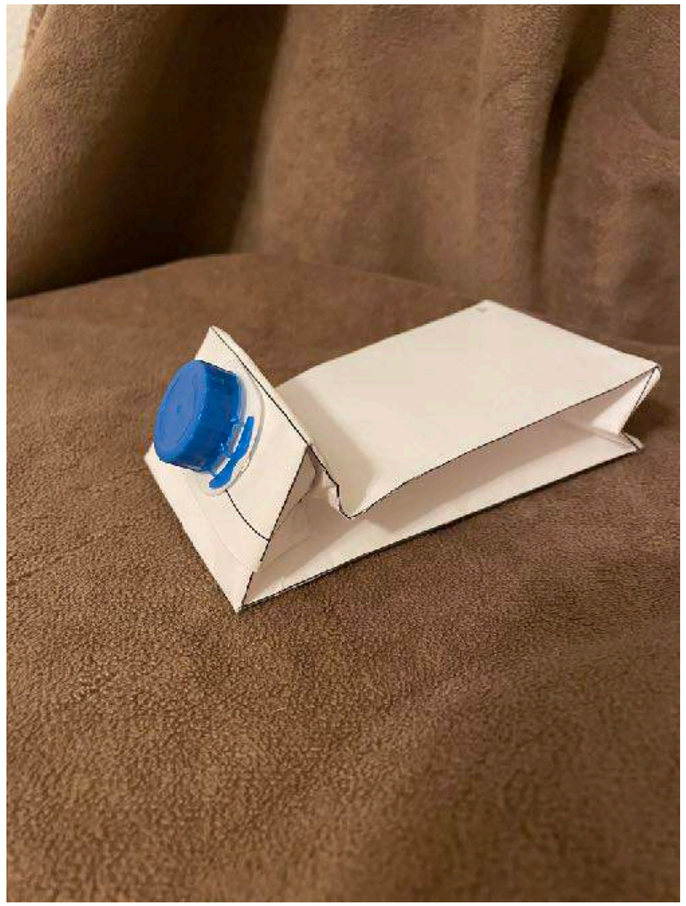
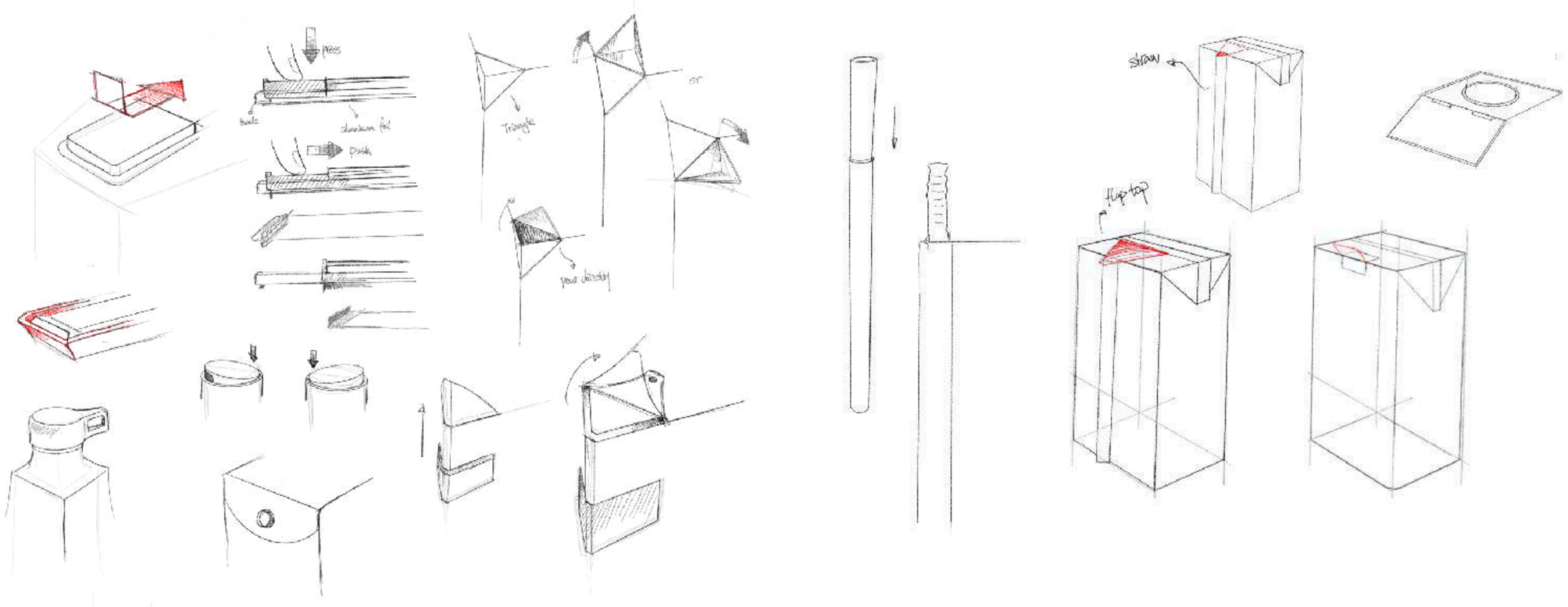
ZAMBIA



CHINA



CHINA

Lifestyle

COUNTRY

VIETNAM

VIETNAM | RETAIL & PURCHASING

- Global grocery chains (eg. 711) start operations in large cities
- 94% of total grocery retail sales are family businesses and small-scale traders
- Inappropriate storage

VIETNAM | INCONVENIENT TRANSPORTATION IN VIETNAM

- On foot, motorbike, bicycle, or electric-bike, boats, domesticated animals, local farm truck
- muddy roads or wild trails in remote area that perform poorly

COUNTRY

MOROCCO

MOROCCAN | MARKET

supermarket

traditional market

- Diary is stored in room temperature and sell in bulk
- Moroccan love spices
- There is supermarket as well as traditional market

MOROCCAN TOURISM

- Tourism is one of the most important sectors in Moroccan economy
- Morocco attracted more than 13 million tourists in 2019
- The government is heavily investing in tourism development
- Tourism is focused on culture, landscape and expense

MOROCCAN TRANSPORTATION

- Morocco has the best infrastructure in African continent
- They have all different kinds of transportation systems
- Morocco has the largest port in Africa

COUNTRY

ZAMBIA

ZAMBIA | SHOPPING BEHAVIOR

- About 70% of the vendors sold fresh fruit and vegetables, 15% sold meat
- Both low- and high-income households consume fruits and vegetables daily or more often
- Some consumers reported health issues with the food from informal markets

Trustable quality Essential products Flexible price

ZAMBIA | SHOPPING BEHAVIOR

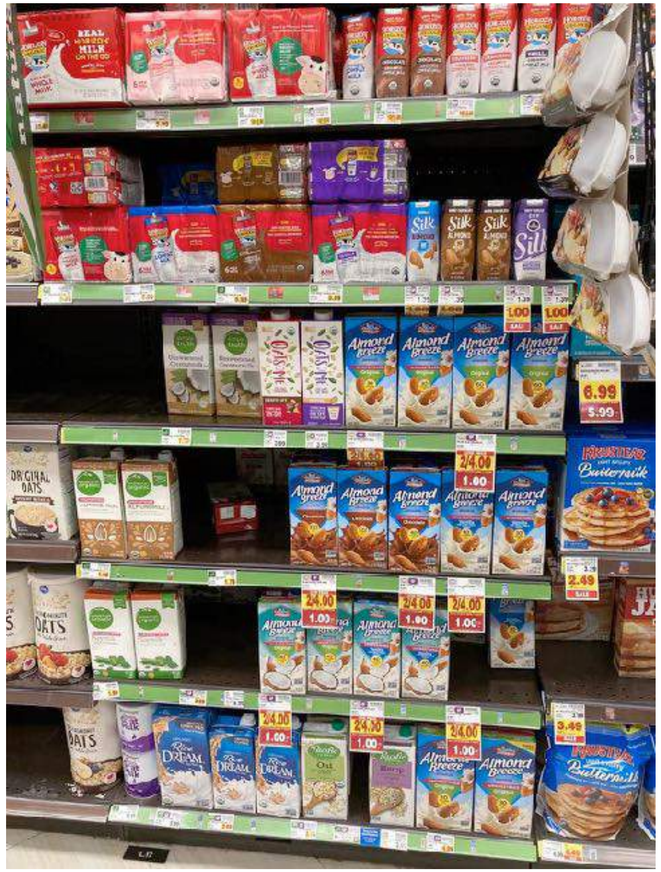
- A customer will see a product and buy the whole shelf — because they are not sure it’s coming again.
- Shopping less frequently, spending less during each shopping trip and by buying bigger packs for better value.
- Less loyal to brands as they seek out the best prices.

High quality Various products High price

COUNTRY

UNITED STATES

UNITED STATES | RETAIL MARKET



- Diary food
- Can food
- Dry food
- Pre-cooked food

COUNTRY

CHINA

CHINA | Shopping behavior

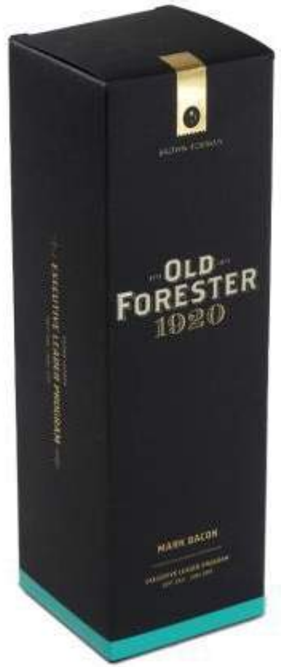
"Freshness"

In 2019, the trend of “freshness” has emerged in the milk market. Key industry players such as Yili and Mengniu have started to invest in fresh milk significantly. The outbreak of Covid-19 may foster the growth of this trend since the National Health Commission of China recommends drinking milk.

"Nutrition"

58.7% Chinese consumers are aware of the Nutrition Fact Panel and indicate that it affects their buying decision.

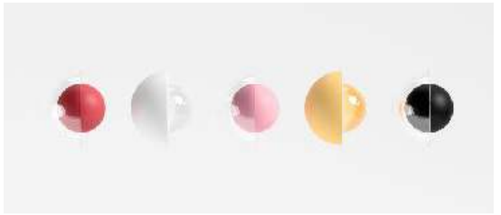
CHINA | Shopping behavior



20% of the Chinese consumers associate paperboard with premium, high quality

Chinese consumers are willing to pay more for food safety proven packaging, and they prefer portion packs that guarantee the hygiene and safety of products.

43% associate shiny texture with premium or high quality



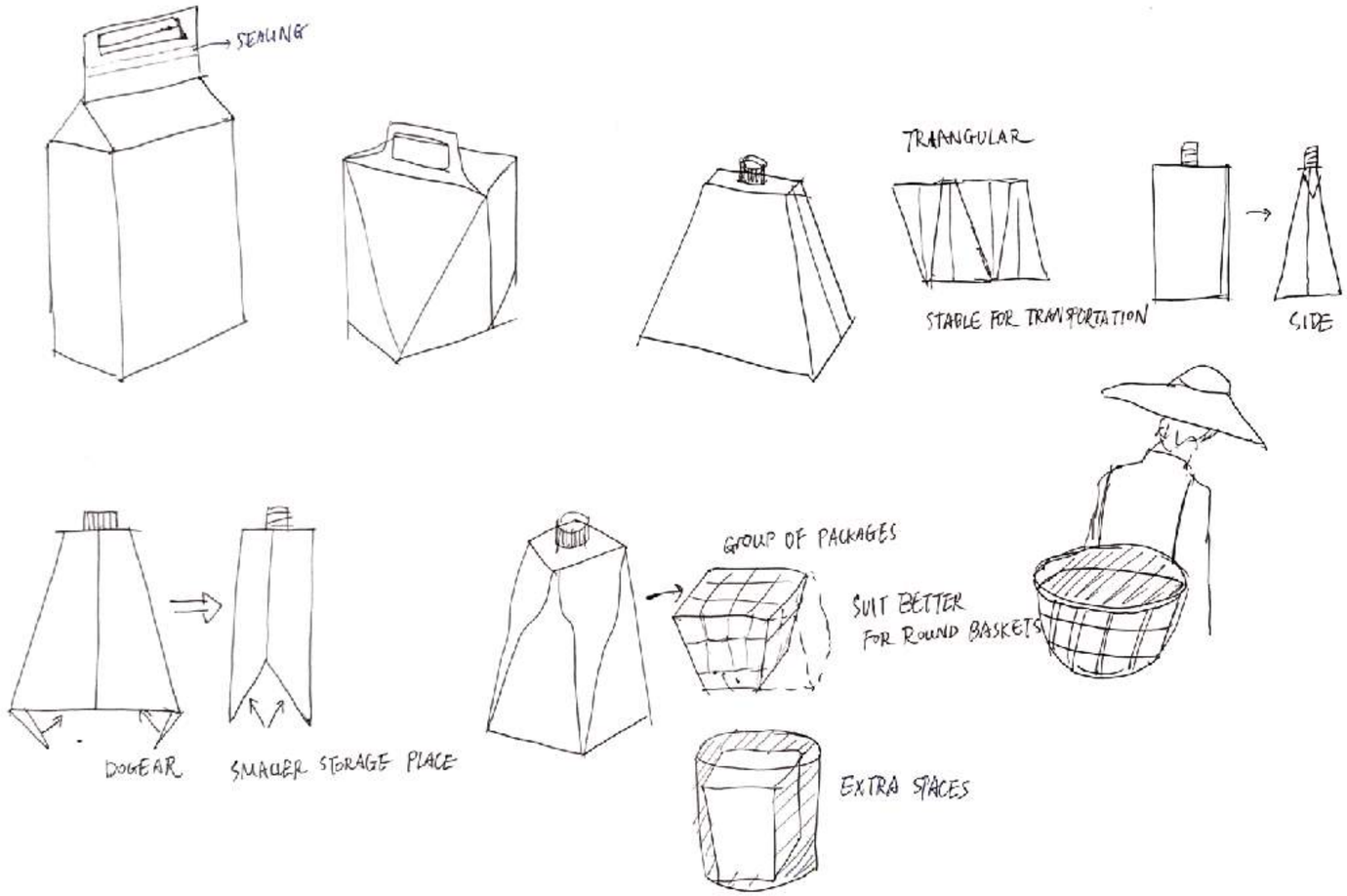
55% believe the quality of packaging material is a sign of the quality of the product inside

CHINA | Shopping behavior

Many consumers from developing countries prefer foreign brands, because they reflect a higher status and signify social mobility.

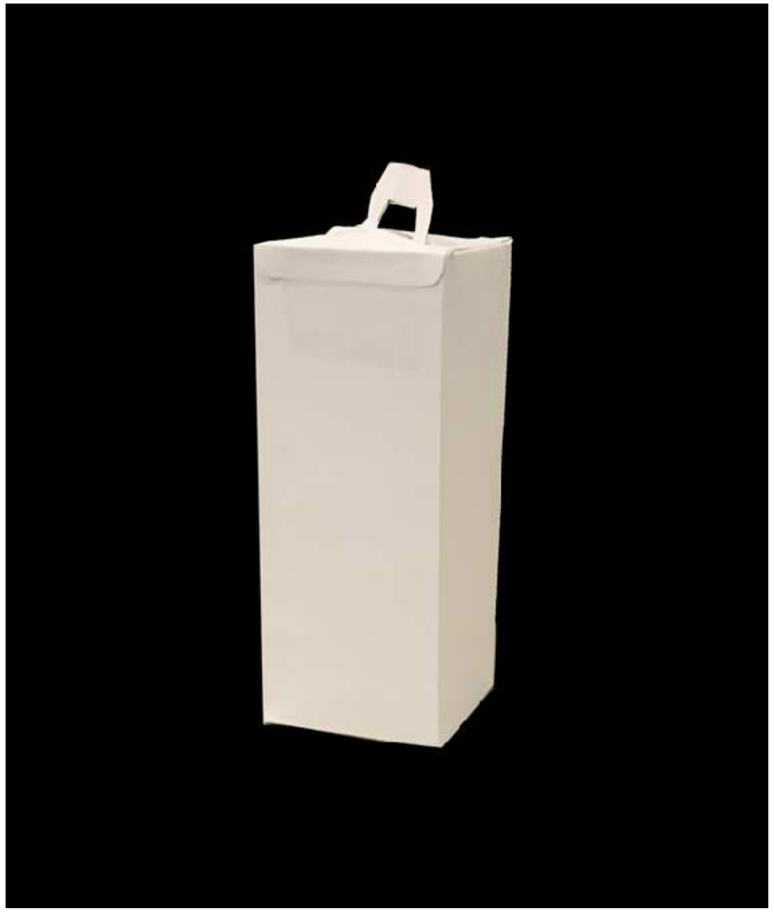
Chinese consumers prefer to purchase “just enough,” small product-package systems, because of limited funds and storage facilities.

VIETNAM

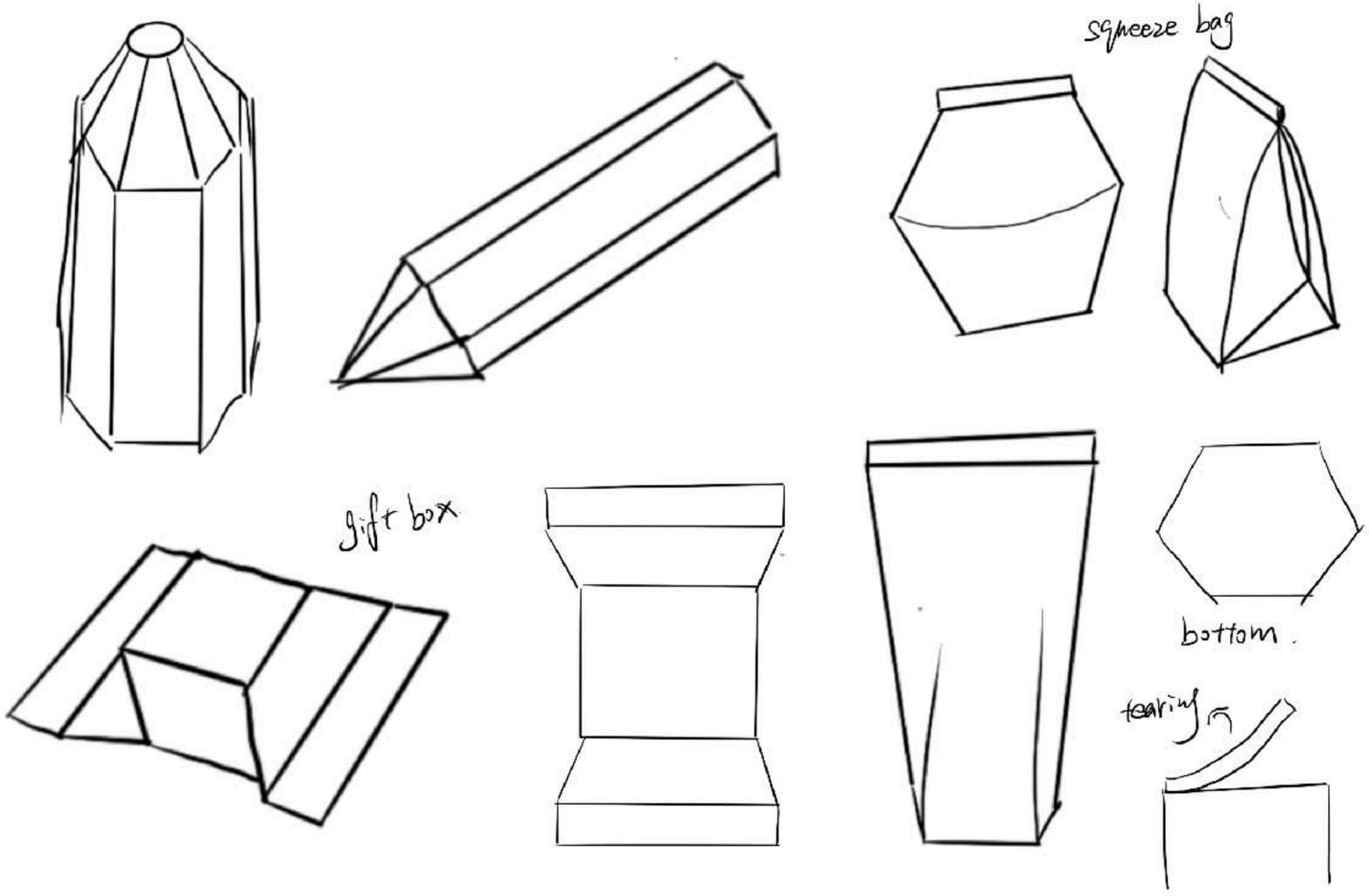


- Handle/ stable shapes
- Optimize the shape and size of the package to adapt people's habit

VIETNAM

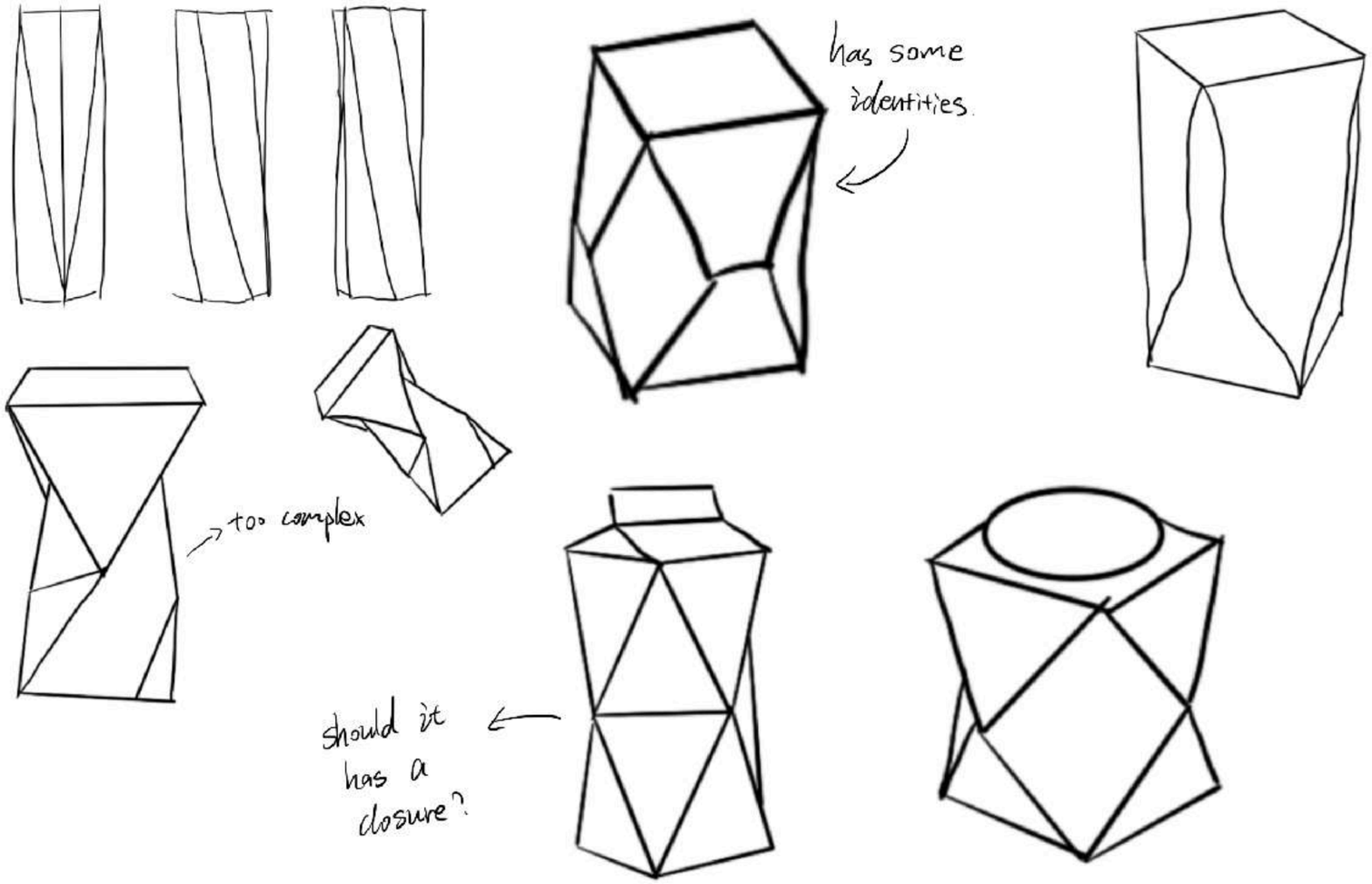


MOROCCO



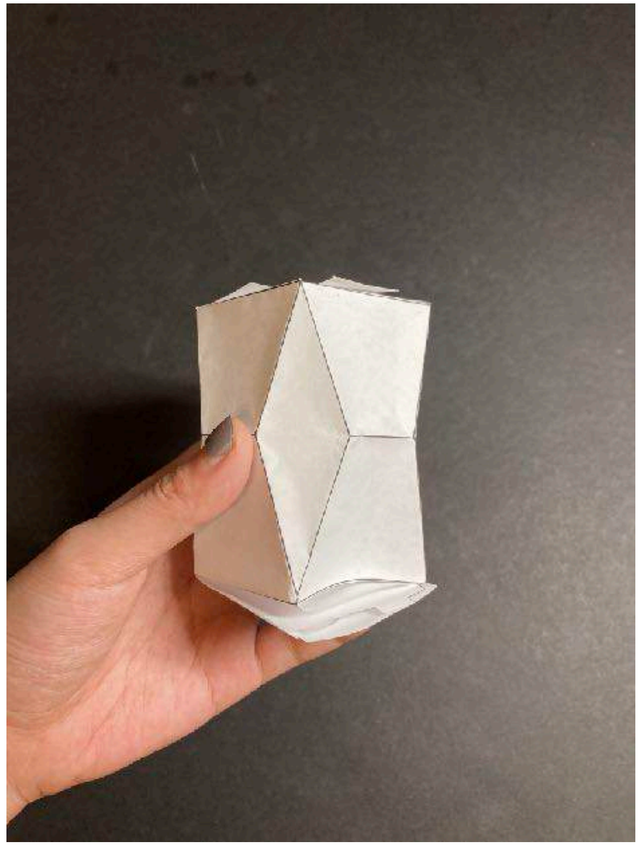
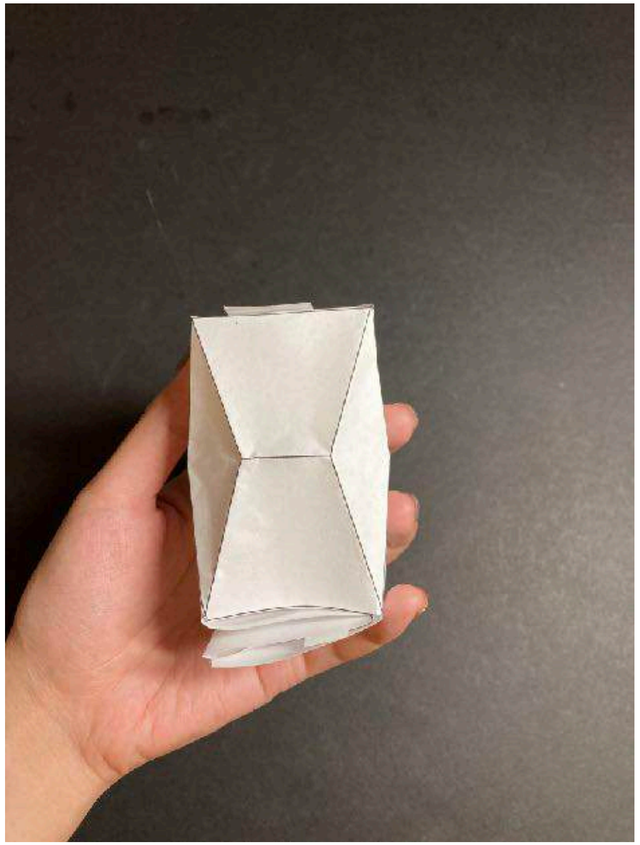
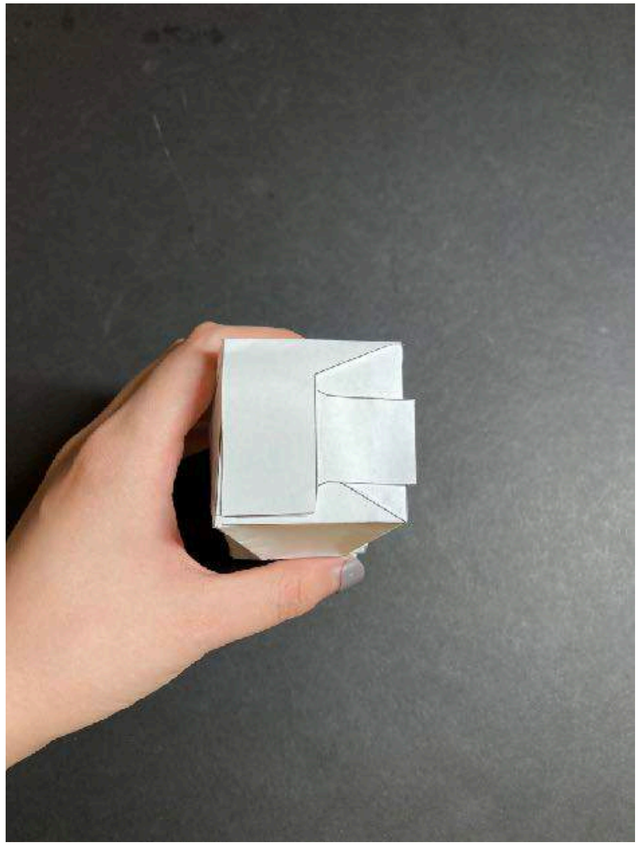
- small in size
- could work as gifts

MOROCCO

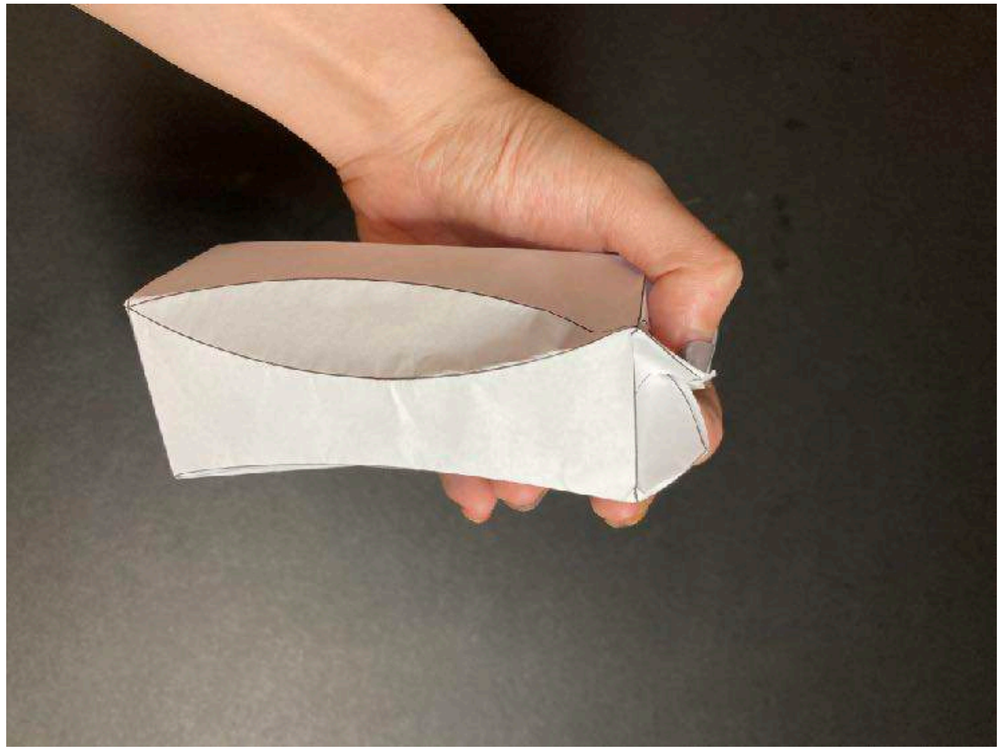
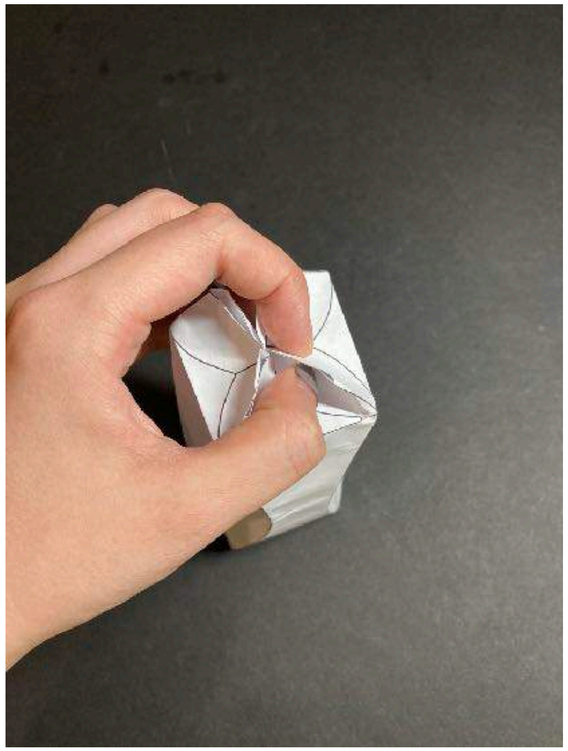


- with some special shapes to reflect cultures

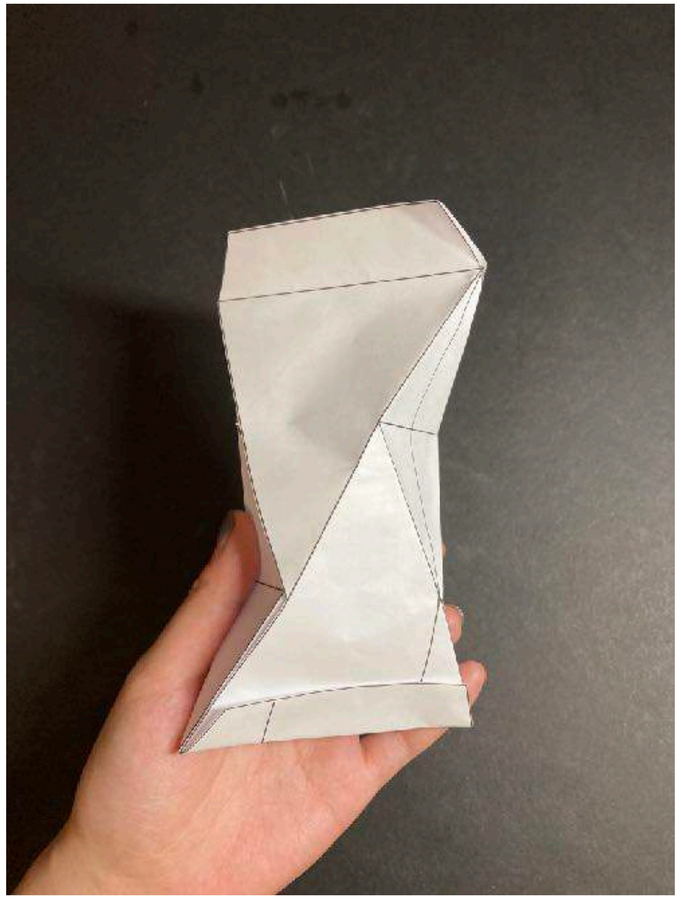
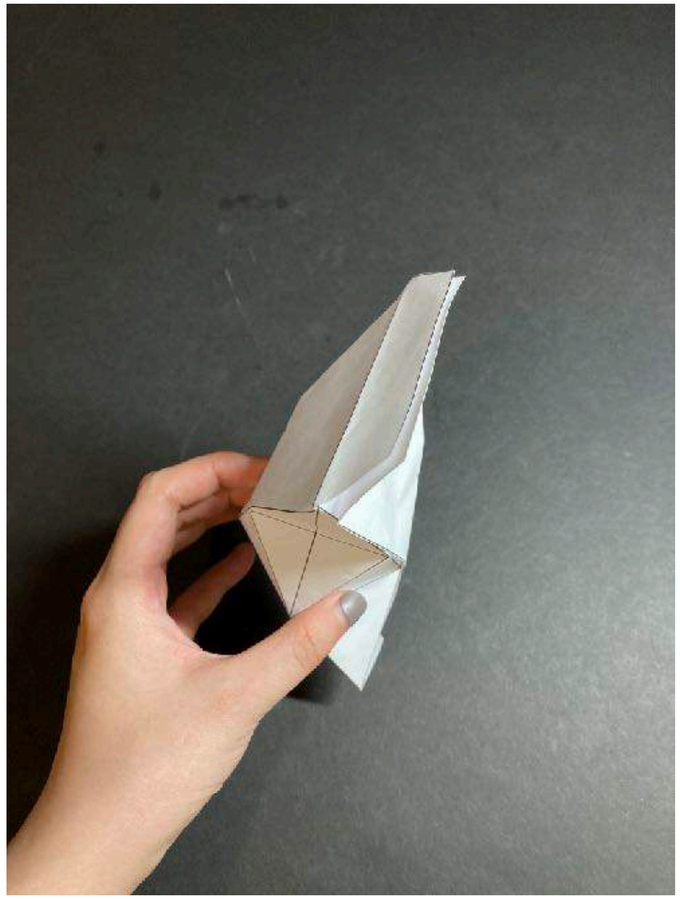
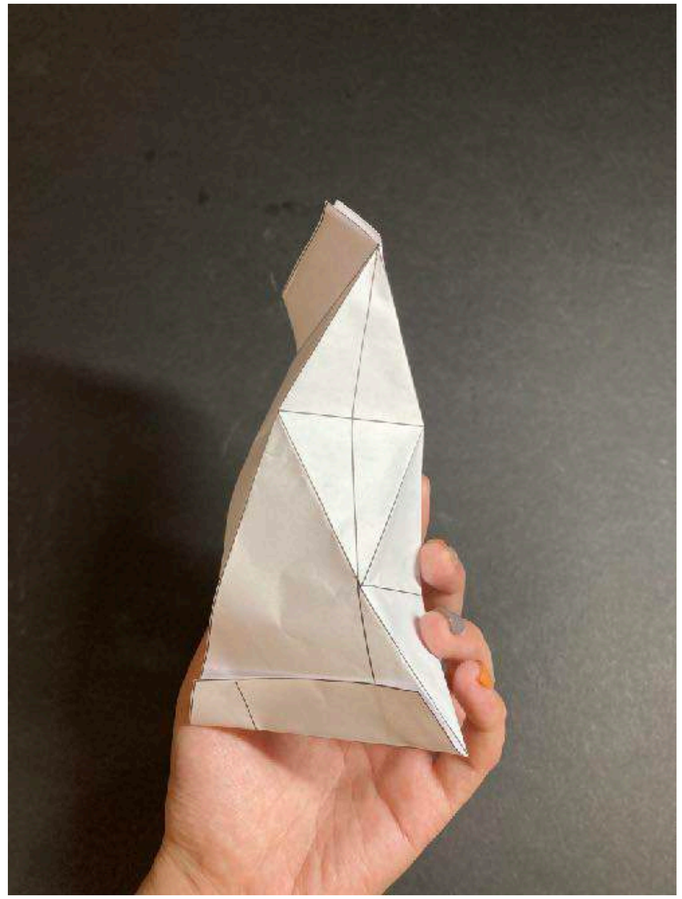
MOROCCO

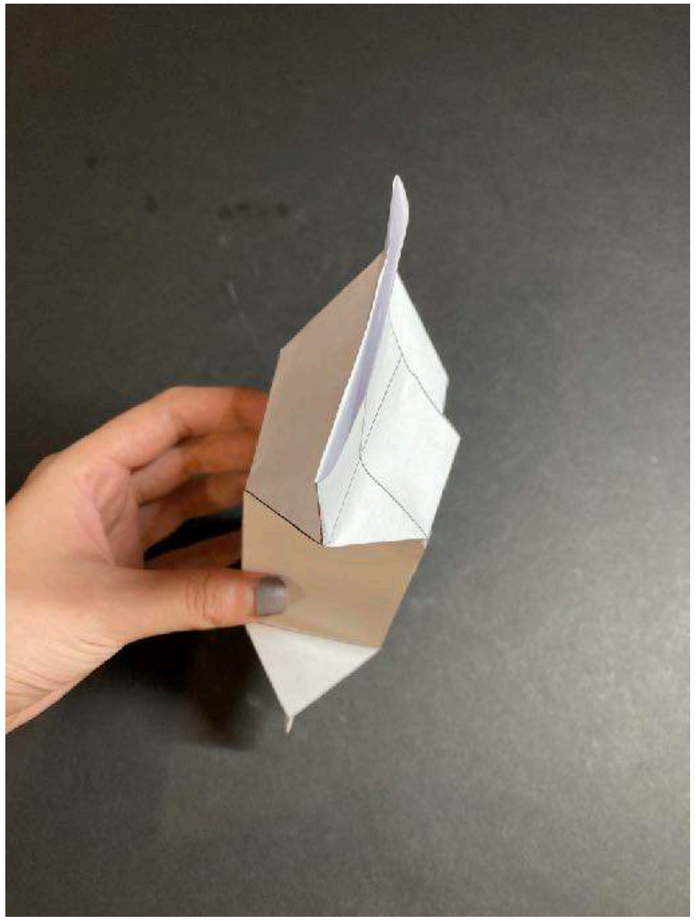
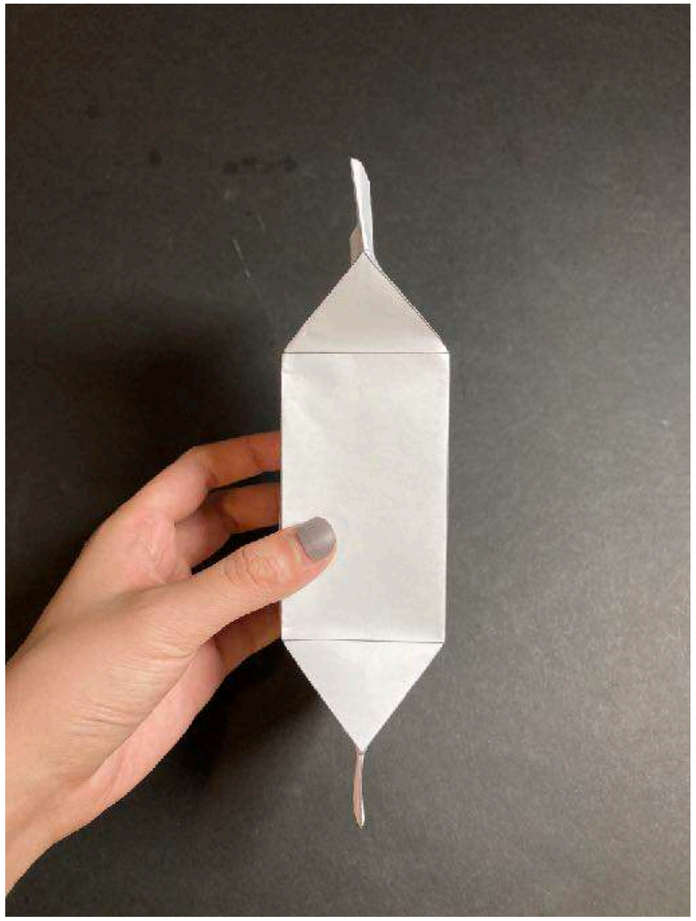
MOROCCO

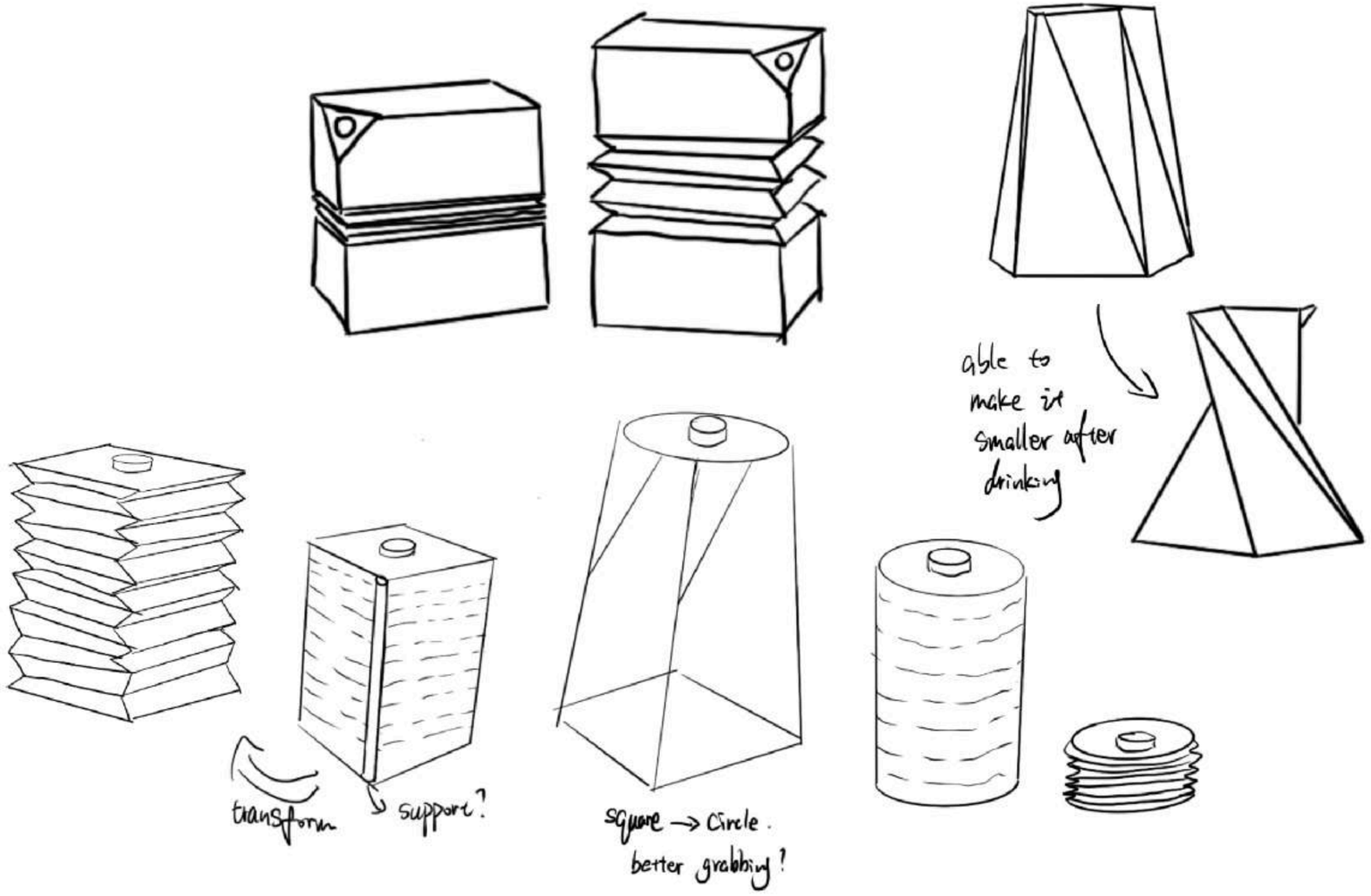
MOROCCO

MOROCCO

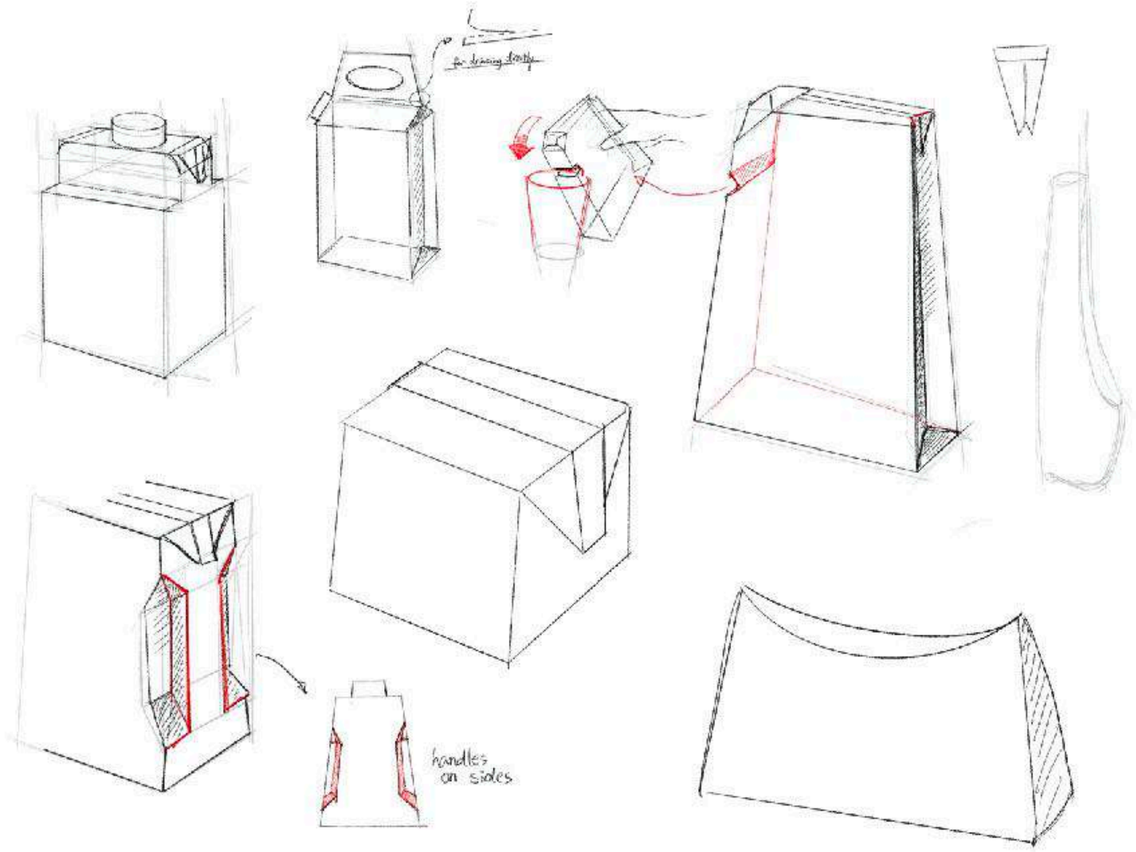



UNITED STATES



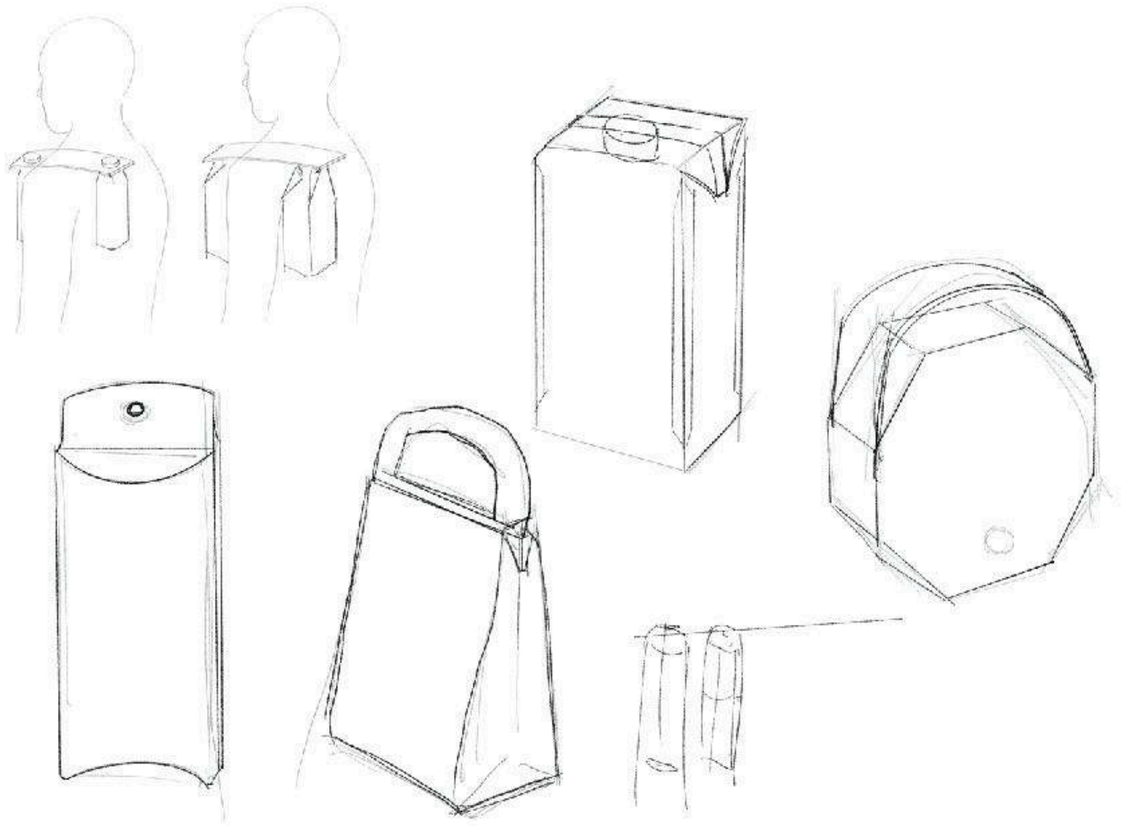
- collapsable shapes for easy delivery

ZAMBIA



- Larger packages that are easy to handle with

ZAMBIA



- Easier for transportation

ZAMBIA

ZAMBIA

Climate

COUNTRY

VIETNAM

VIETNAM | LIFE IN RURAL AREAS

- 75% of Vietnamese live in lowlands, mountainous areas, and the coastal line
- Live on farming, raising livestock, and making handicrafts
- Suffer from various seasonal natural disasters and harsh weather conditions

VIETNAM IN FLOOD

- Flooding/tropical depressions/ tropical storms/ typhoons
- Vulnerable to climate change

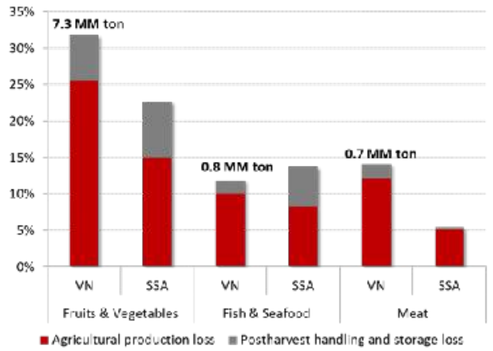
VIETNAM | FLOOD IN 2020

"…where they spent three days perched on boards in their attic, with hardly any food or water, until the floodwaters receded."

- More than 2.5 million children at risk of disease, **poor nutrition, malnutrition**, and delayed development during the pandemic
- 72,000 pregnant and lactating women and 120,000 children under the age of 5 with no access to essential health care services.

- Flood and typhoon destroy agriculture and cattle
- Disease transmitted through direct contact with **contaminated water**

VIETNAM | FOOD WASTE



- 25% of the food produced is lost before reaching distribution centers
- The total average loss and waste for Vietnam would reach more than 50% of what is produced.

- Micro-farms are lacking of proper storage and cooling structure
- Food damage during harvesting
- Only 14% use of cold chain
- Small-scale traders (94% of total grocery retail sales) operate food product inappropriately

- Use low-grade packages (large bags, **recycled** carton boxes, polystyrene boxes, bulk)
- Need an **affordable and efficient** package solution

COUNTRY

MOROCCO

MOROCCO URBAN VS RURAL AREAS

Urban area

- enormous shopping malls
- high tourism rate

VS

Huge disparity between the living conditions of Moroccans in cities and rural villages

Rural area

- almost no electricity
- infertile, arid land

https://borgenproject.org/the-urban-rural-poverty-gap-in-morocco/

MOROCCO DROUGHT

- People were struggling with drought for the past 3 years
- The water from dams are providing water for residential areas not farms
- The dam almost dry out

https://thearabweekly.com/farmland-moroccos-south-west-struggles-drought

COUNTRY

ZAMBIA

Zambia | Storage

- Limited traditional warehouses

- Drying technique with fire to preserve food

Zambia | Food loss

Post-harvest

- About a quarter of that is lost in the process
- No enough space for all harvest

Before consumption

- Do not have refrigerating equipment to keep fresh

After consumption

- Prepare more than enough, and they don’t eat

COUNTRY

CHINA

CHINA | Covid impact

Positive coronavirus test in Jiangsu province sent shock waves across Chinese social media, scaring customers and hurting cherry sales during peak season ahead of Lunar New Year holiday, when cherries are given as gifts.

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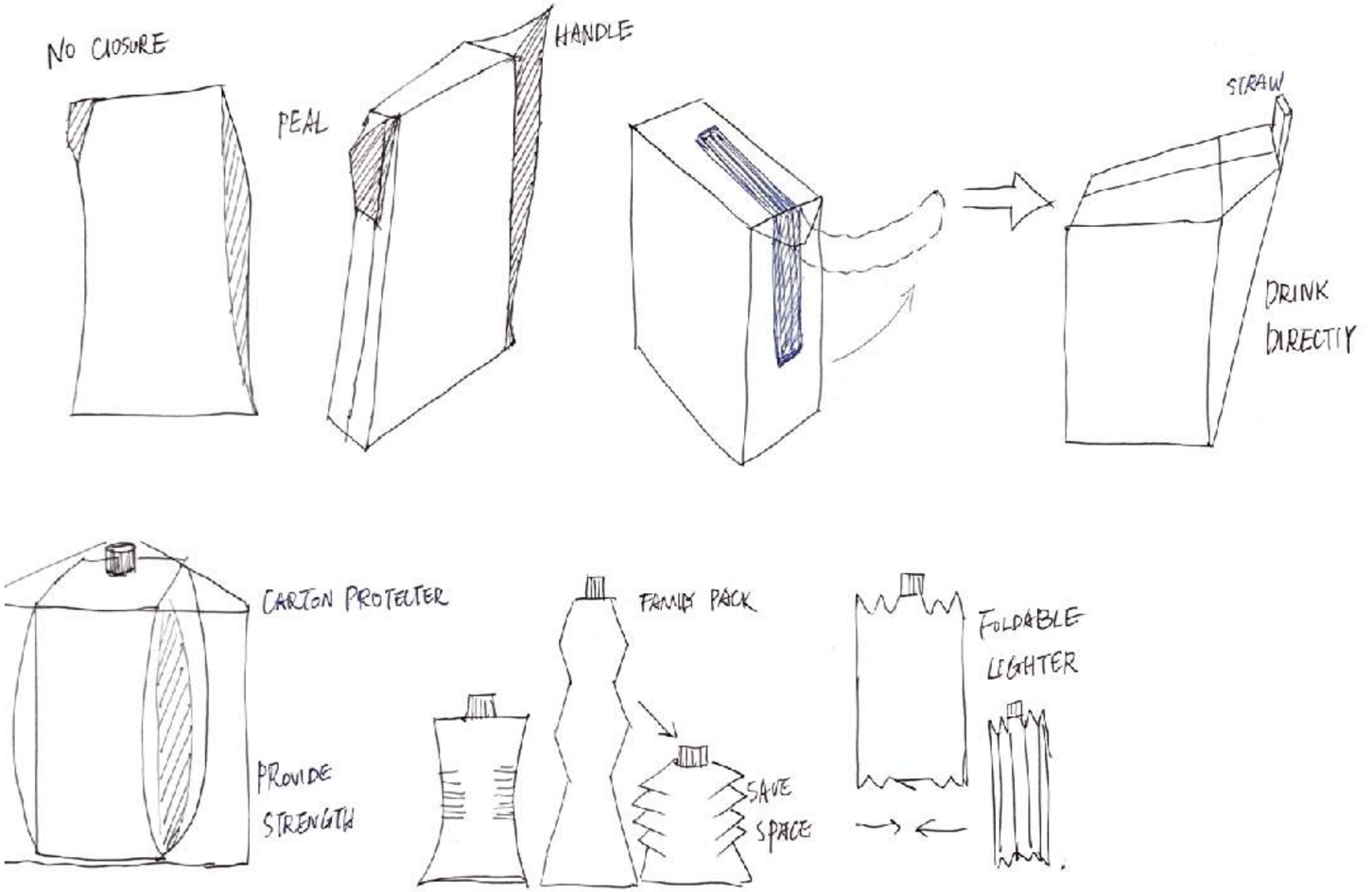
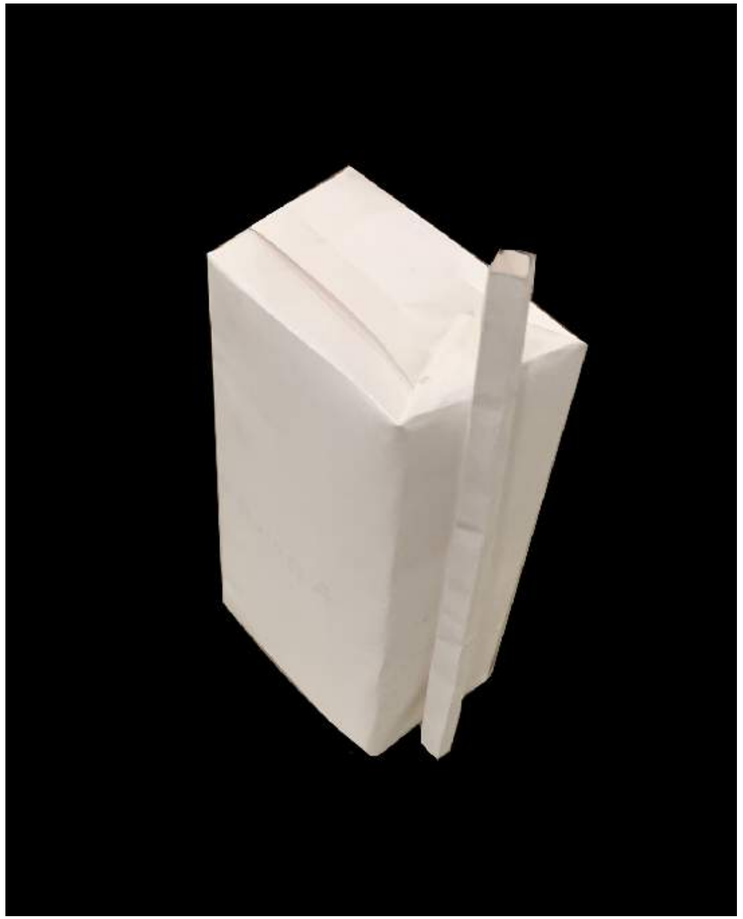
VIETNAM



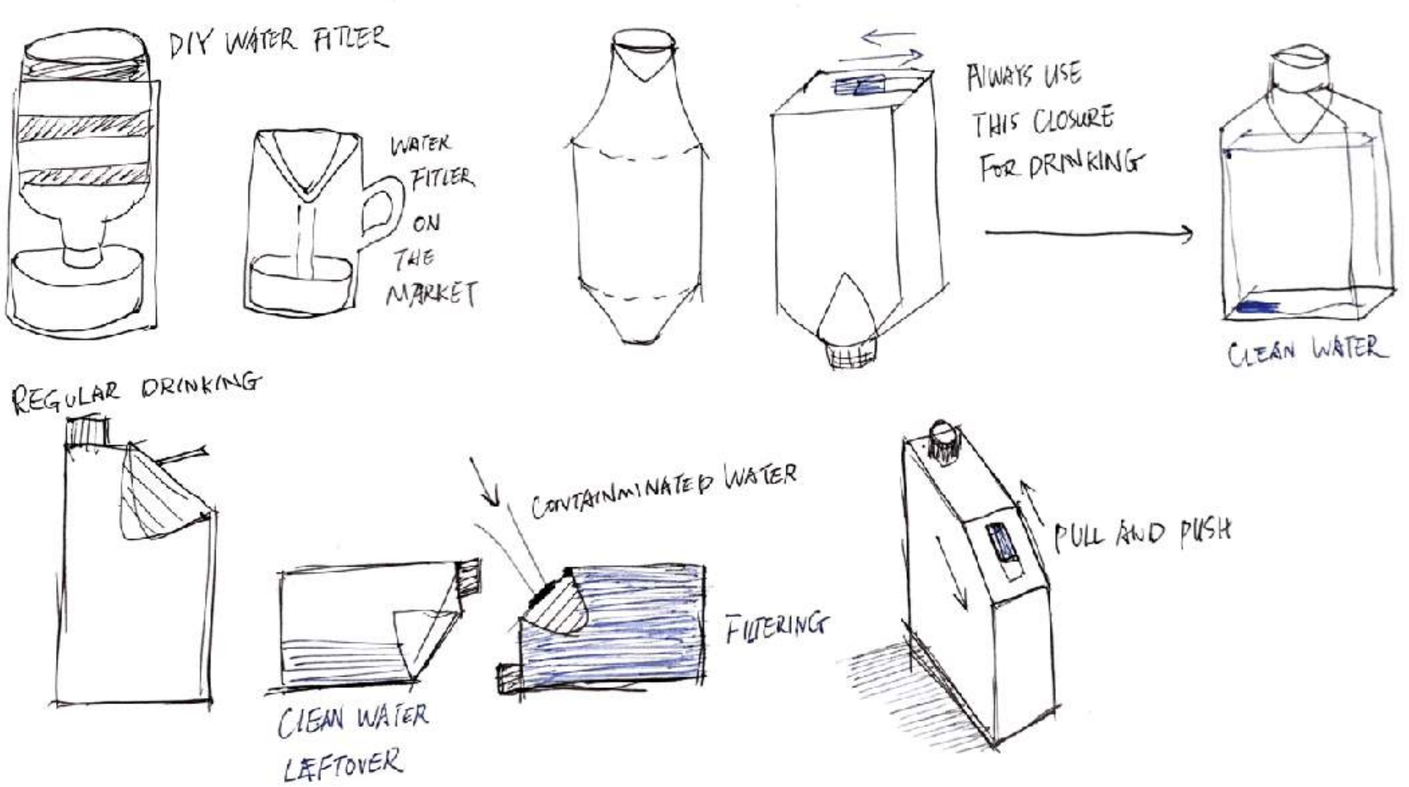
- Children need packages that are easy to open and drink directly
- During floating, carton can be damaged, so an extra protection may help.
- Foldable package reduces space.

VIETNAM



VIETNAM

VIETNAM



- Contaminated water needs filter to be purified
- The carton carries clean water, and a water filter for its second life
- The carton should be as convenient to use as possible, people can’t hold a thing all the time in the water.

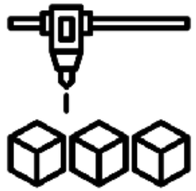
VIETNAM

CHINA

- cherry test positive for COVID

- Decrease in cherry sales

- Food waste



- Aseptic process

REFERENCE

- https://www.weforum.org/agenda/2018/09/how-vietnam-became-an-economic-miracle/
- https://www.britannica.com/place/Vietnam/Agriculture-forestry-and-fishing
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- https://www.investopedia.com/updates/purchasing-power-parity-ppp/
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- https://theculturetrip.com/asia/vietnam/articles/11-popular-vietnamese-food-and-drink-brands/
- https://www.insidevietnamtravel.com/travel-guide/vietnam-life-in-the-countryside.html
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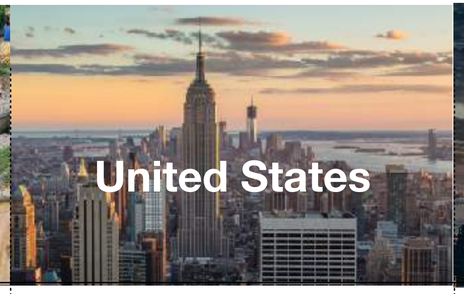
- https://www.sciencedirect.com/science/article/pii/S0378778818339161#:~:text=According%20to%20the%20Vietnam%20household,an%20air%20conditioner%20%5B3%5D.
- https://www.forbes.com/sites/unicefusa/2020/12/08/record-flooding-in-vietnam-leaves-25-million-children-at-risk/?sh=520c11b91421
- https://ueat.utoronto.ca/glass-versus-plastic-food-storage/

WEEK 6

FEEDING THE WORLD

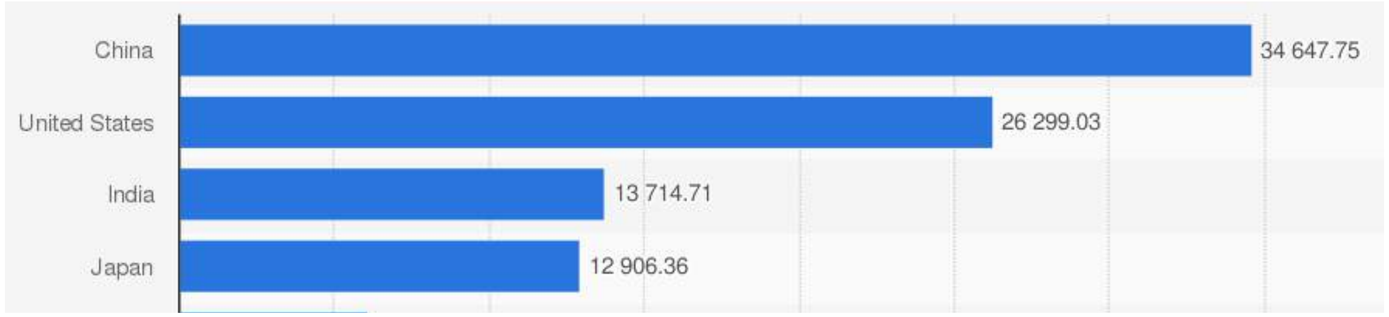
SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

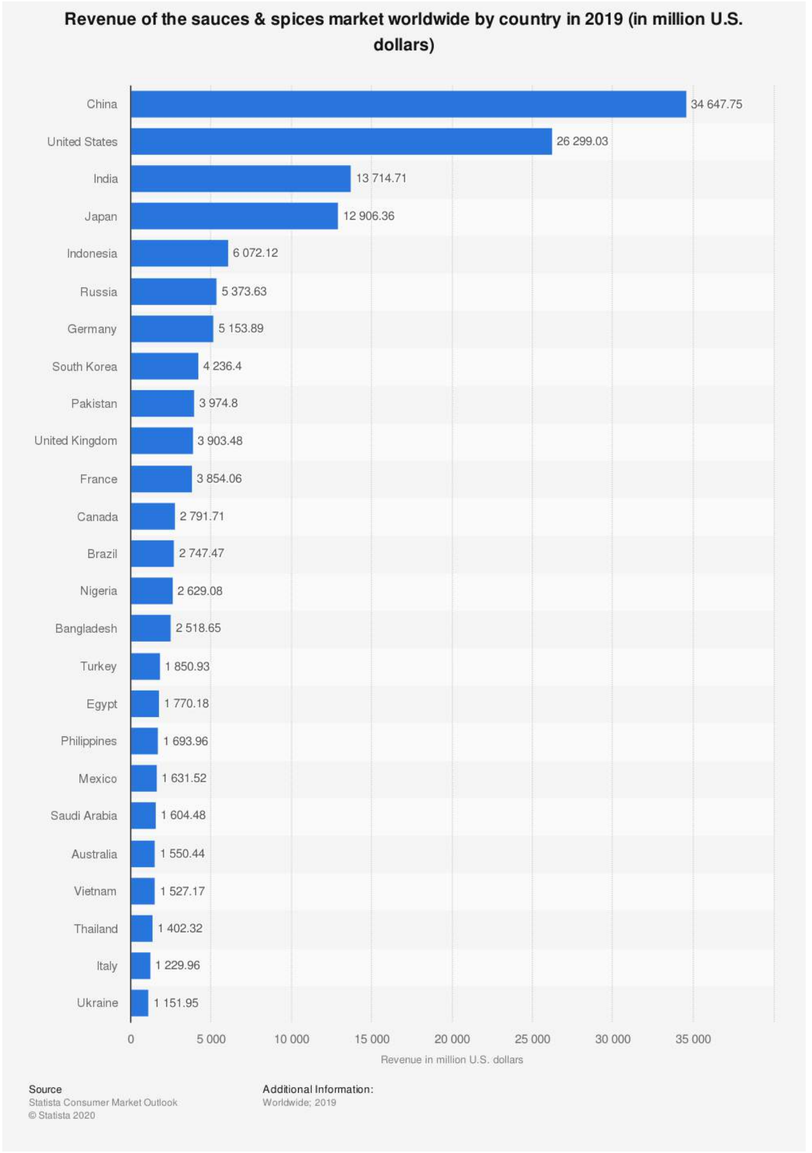
Vietnam	Morocco	Zambia	 United States	China
low-income developing country	low-income developing country	least developed country	highly developed country	developing country
fast economic growth	slow economic growth	fast economic growth	fast economic growth	fast economic growth
tropical climate/ flooding	tropical climate/ mediterranean climate	heavily agricultural inclined	high level of human development	large population
strong tertiary industry	predominant religion: islam	extreme rural poverty	well-developed retail market	highly collectivist culture

FOOD STORAGE

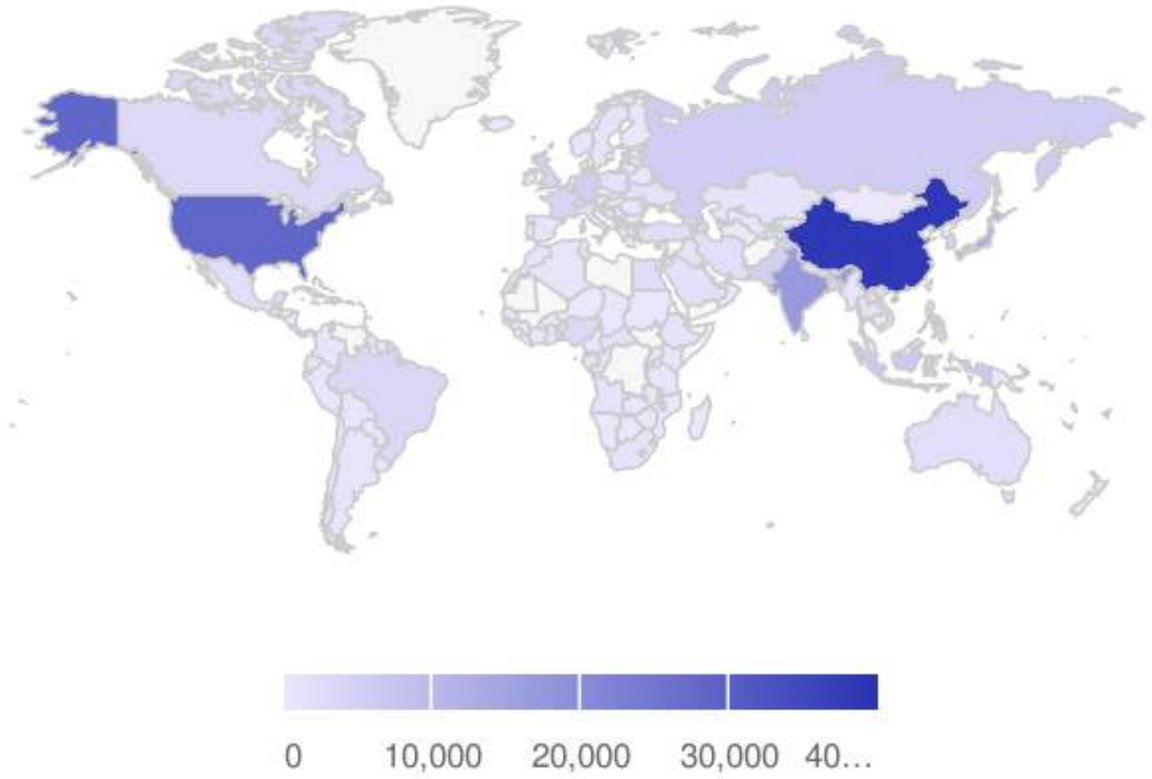
1. SAUCE

High need from China, U.S., India, and Japan





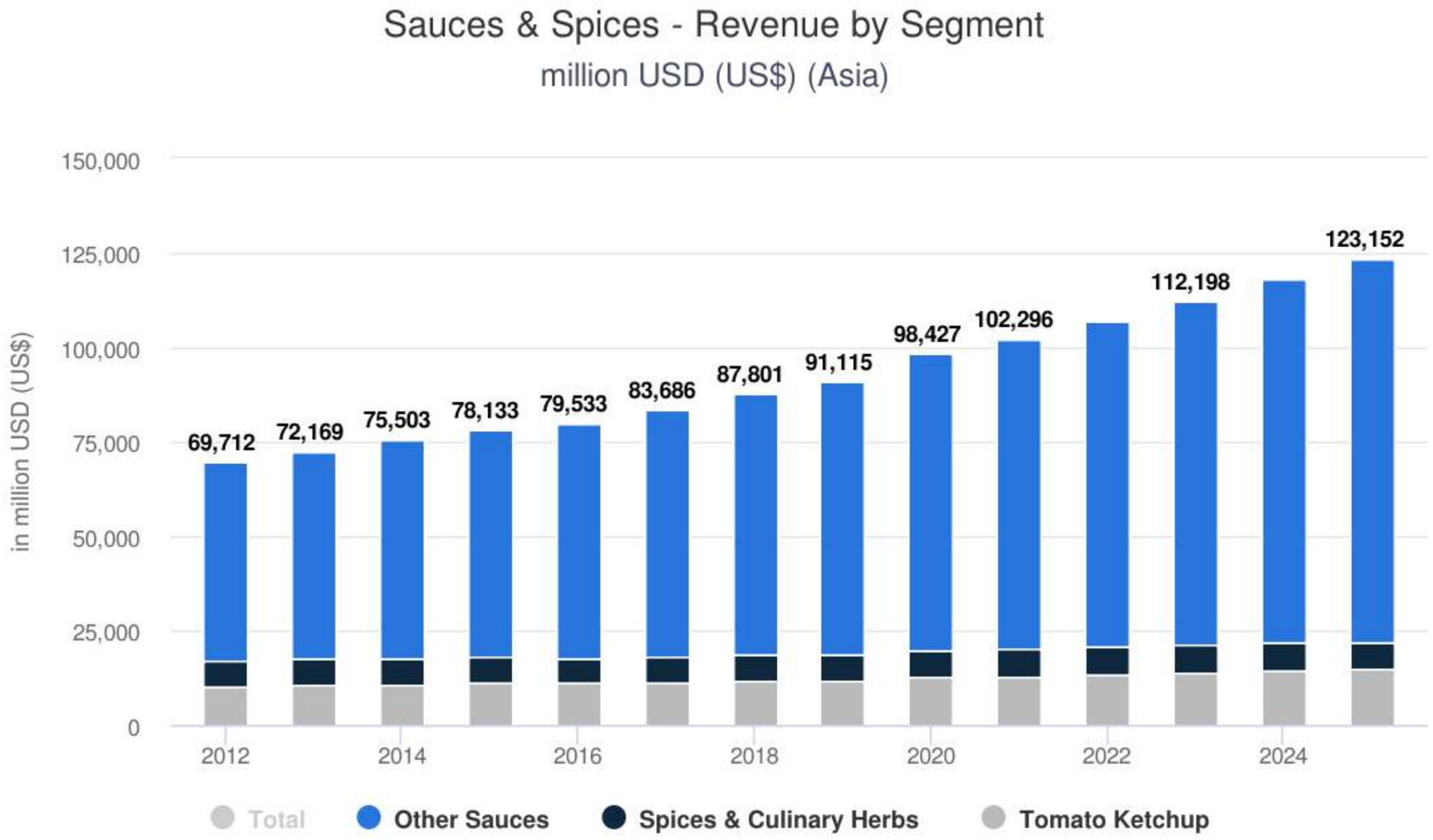
World's trend



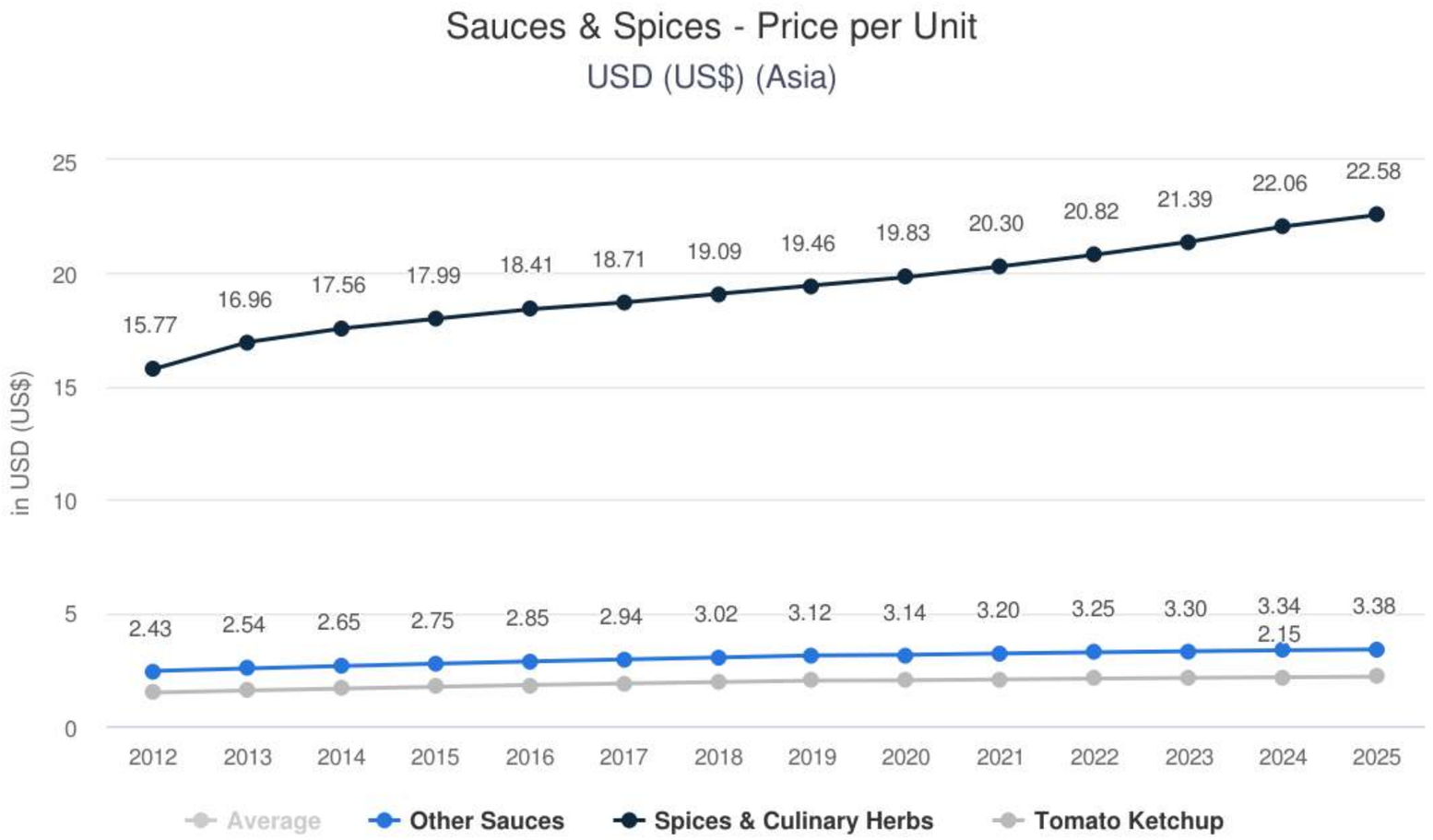
Sauces & Spices - Revenue Comparison
million USD (US$) (Asia)

Top 5 (2021) in million USD (US$)	
1. China	38,588
2. United States	28,175
3. India	16,901
4. Japan	12,923
5. Indonesia	6,663

World's trend



Fair, stable price



- Most popular sauces in Asia are considered as “other sauces” in western countries.
- Variable,

Vietnam: sauces and condensed milk

Vietnamese cuisine has heavy reliance on condiments. There're hundreds of sauces and pho base.

In 2015, Vietnam has nearly 8,000 fast-food outlets; **85,000 full-service restaurants; 24,000 cafeterias/ bars;** and more than 12,500 hotels and resorts.

https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Food%20Service%20-%20Hotel%20Restaurant%20Institutional_Hanoi_Vietnam_8-14-2015.pdf

Vietnamese curry

A dish originating from the Indian subcontinent

Canned condensed milk is heavily used in Vietnamese coffee.

Because of **limitations on the availability of fresh milk**, as the dairy farming industry was still in its infancy, the French and Vietnamese began to use sweetened condensed milk with a dark roast coffee.

China: hot pot base and dipping sauce

Packaged special flavored hot pot base from famous restaurants

Current packaging

+ easy to hold
+ resealable

- sauce get stuck in the lid
- heavy

+ easy to hold
+ resealable

- sauce get stuck in the lid
- hard to pour out the last portion of the product

+ resealable

- hard to hold
- difficult to use with one hand
- hard to pour out the last portion of the product

- layers of plastic package
- one time use
- not resealable

+ small package

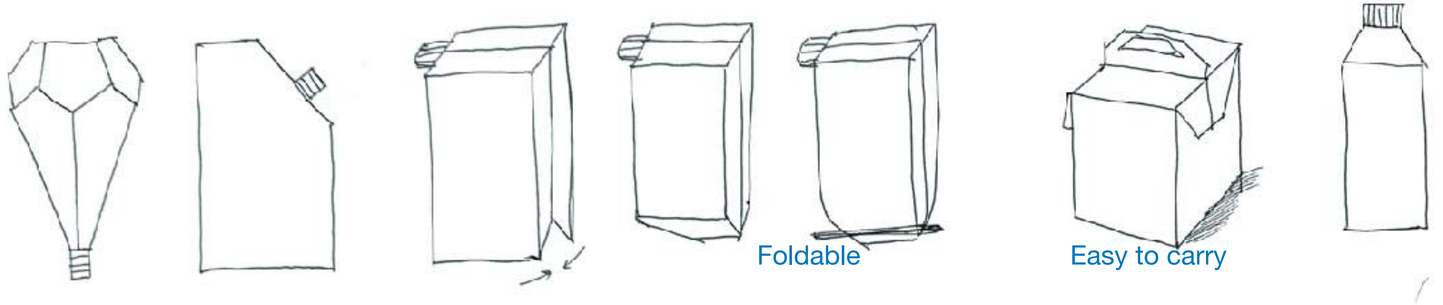
- one time use
- gets messy when used

Our design goals

- easy to hold
- easy pouring
- keep tidy while using the product
- resealable

Sauce

Easy to squeeze

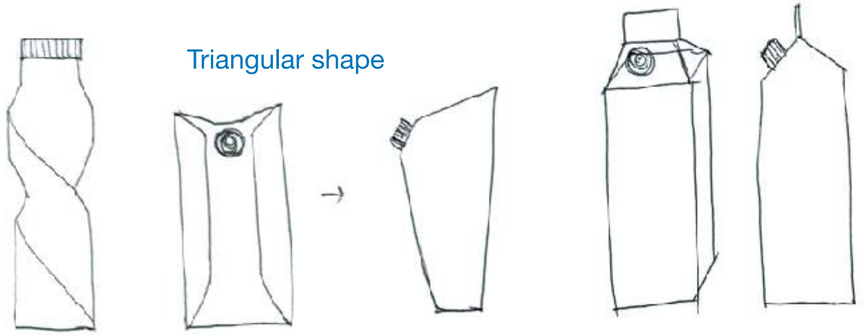


Foldable

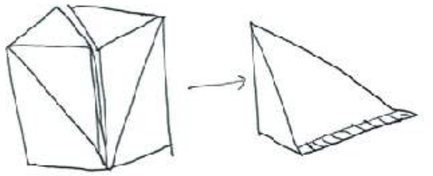
Easy to carry

Huge closure and bottle neck

Thinner in the middle

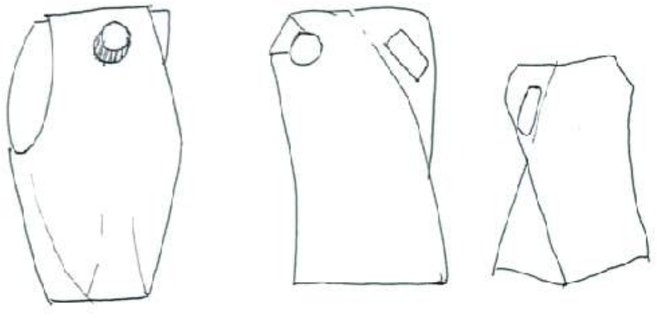


Triangular shape

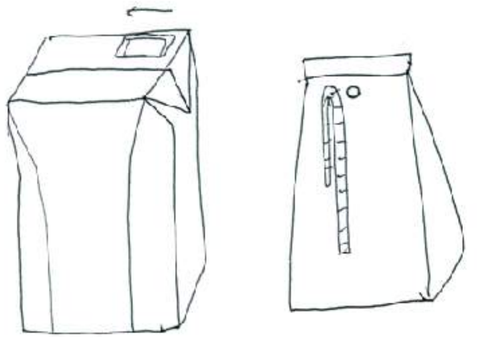


Triangular shape

Attractive shape



Remove the closure



Dog ear on bottle neck

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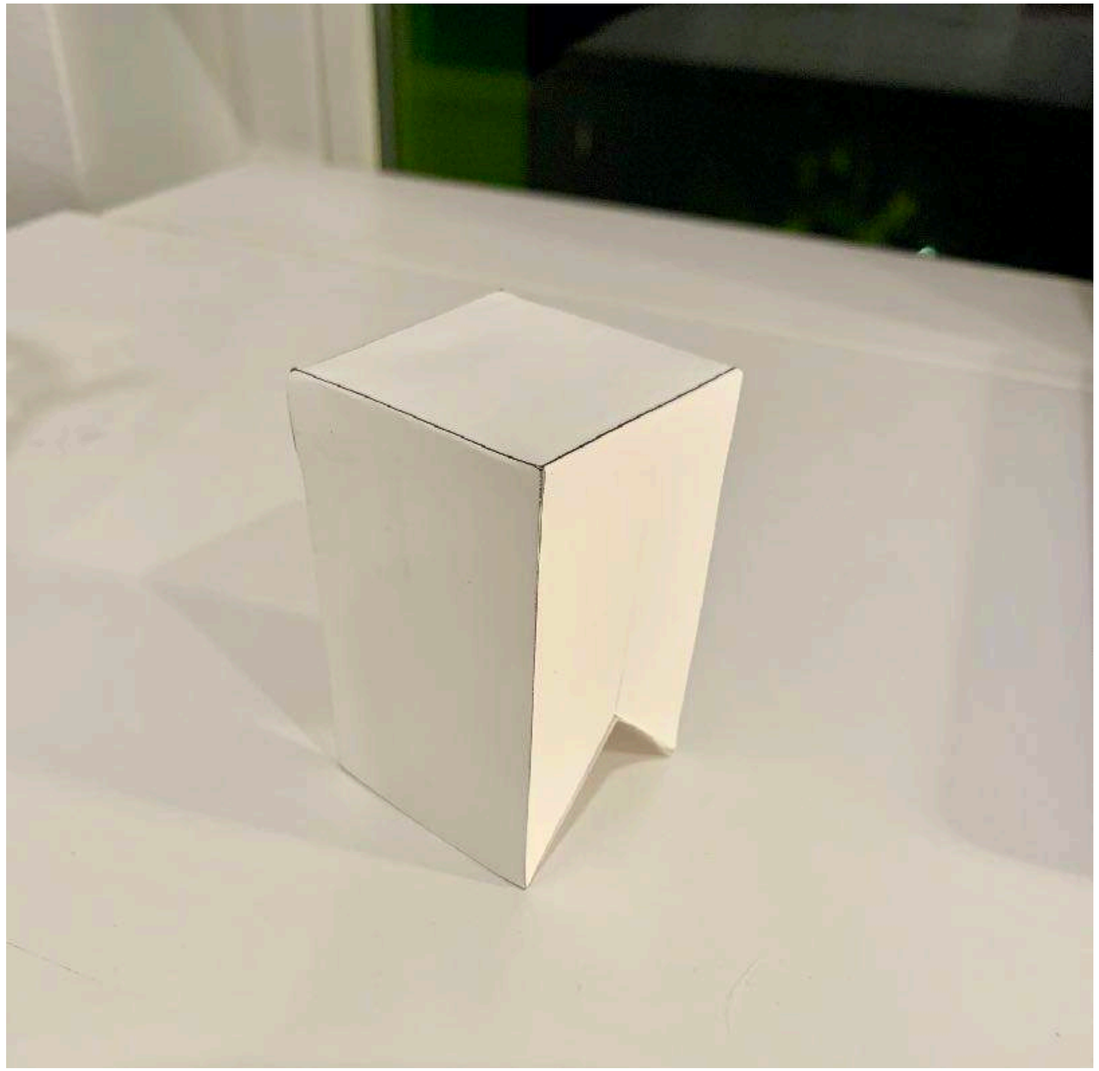
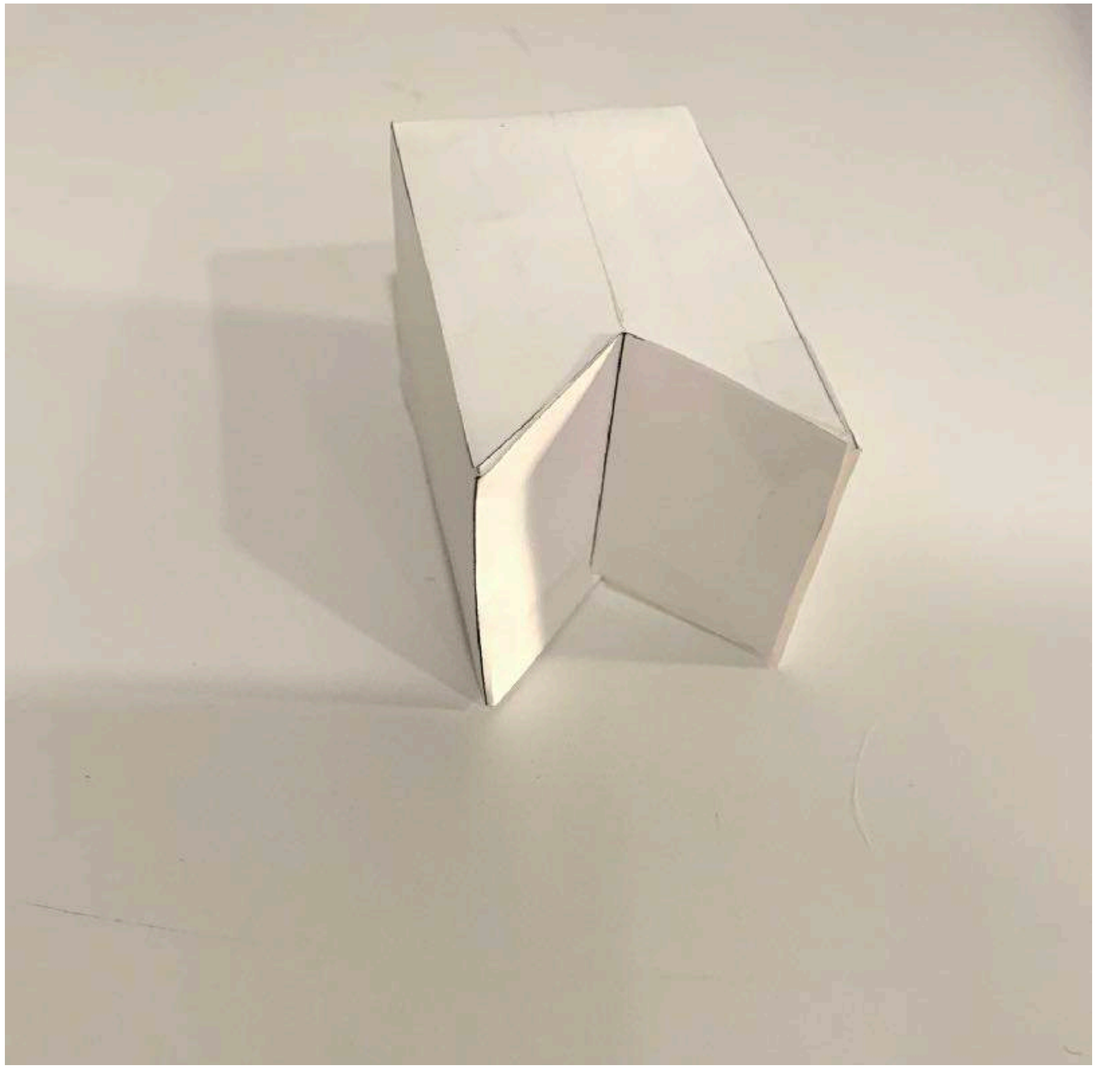
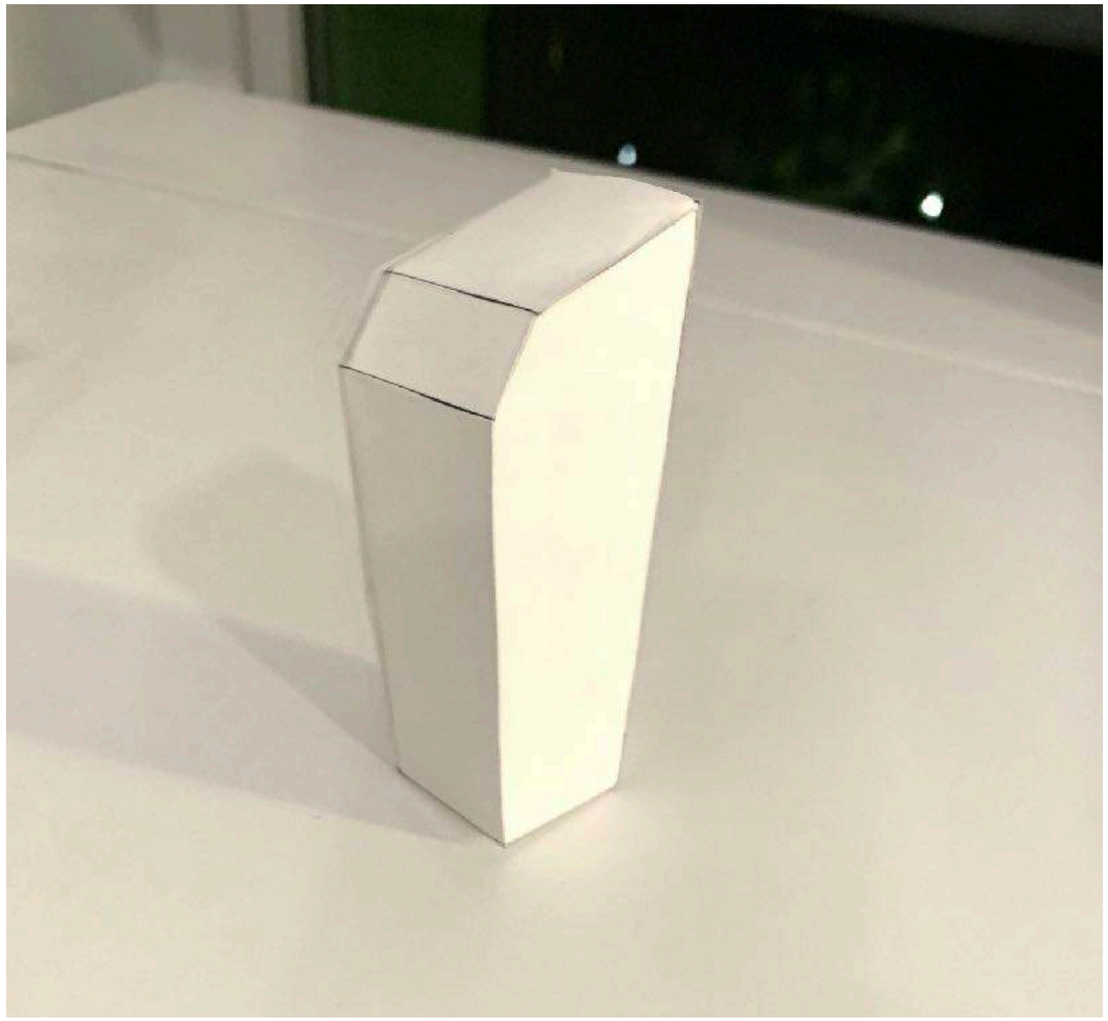
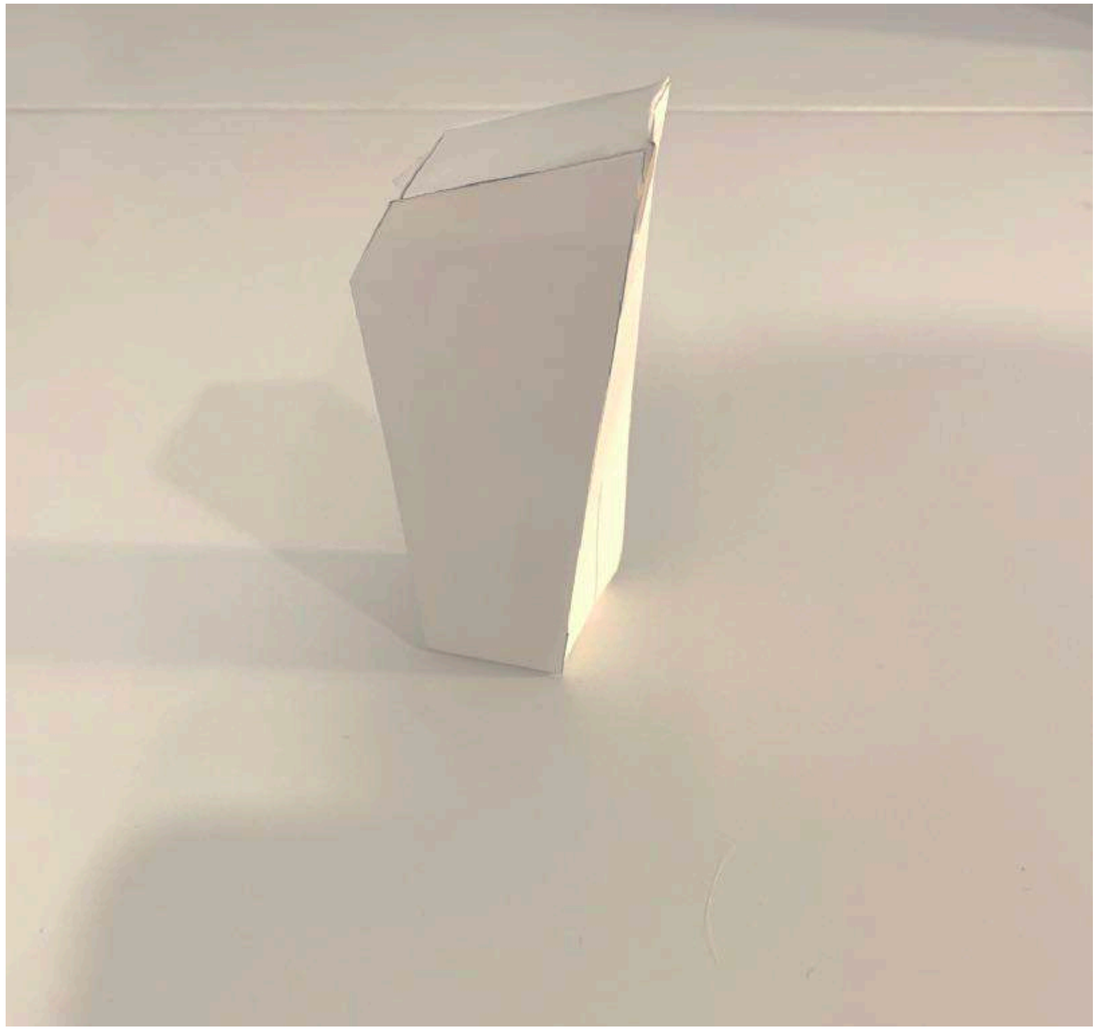
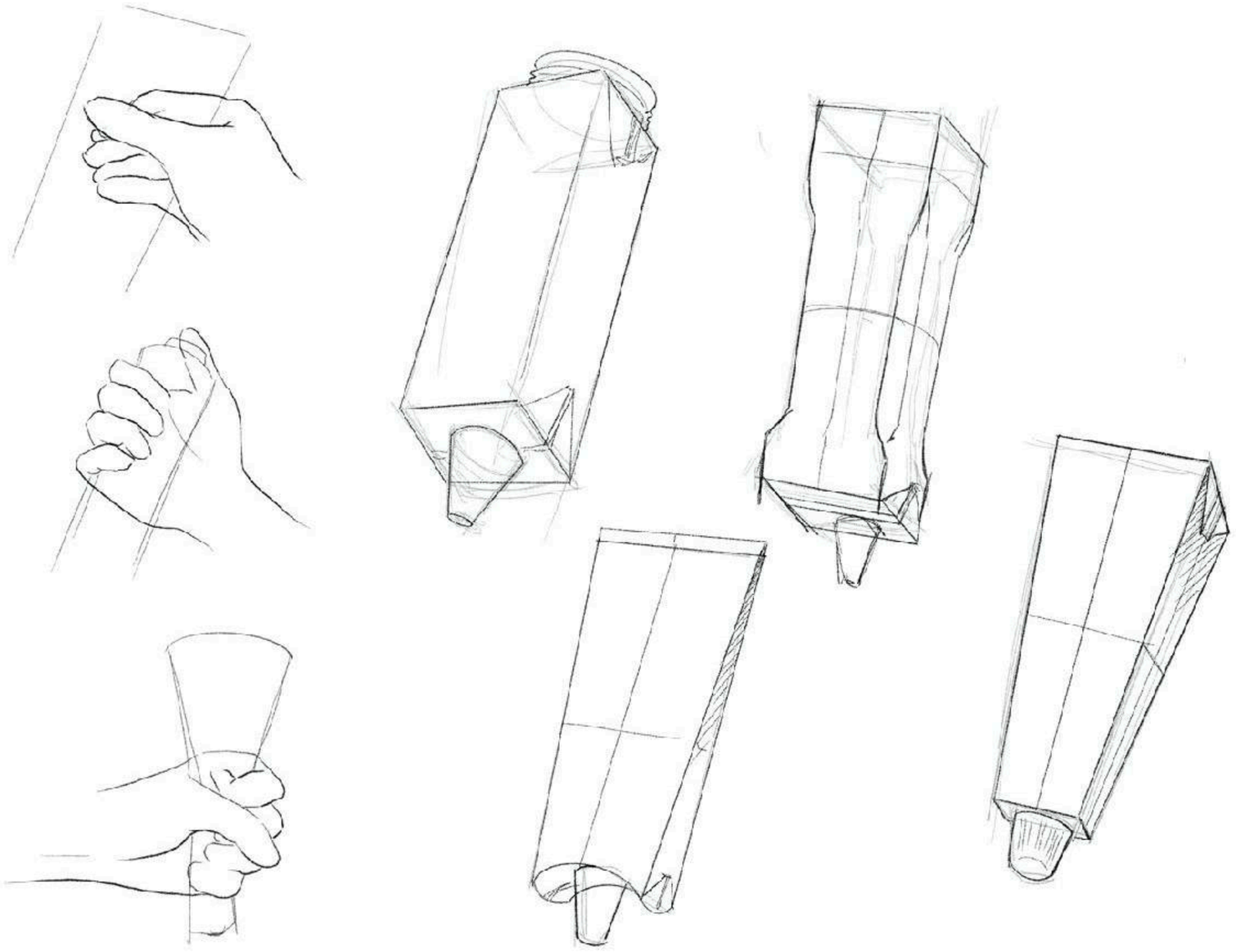




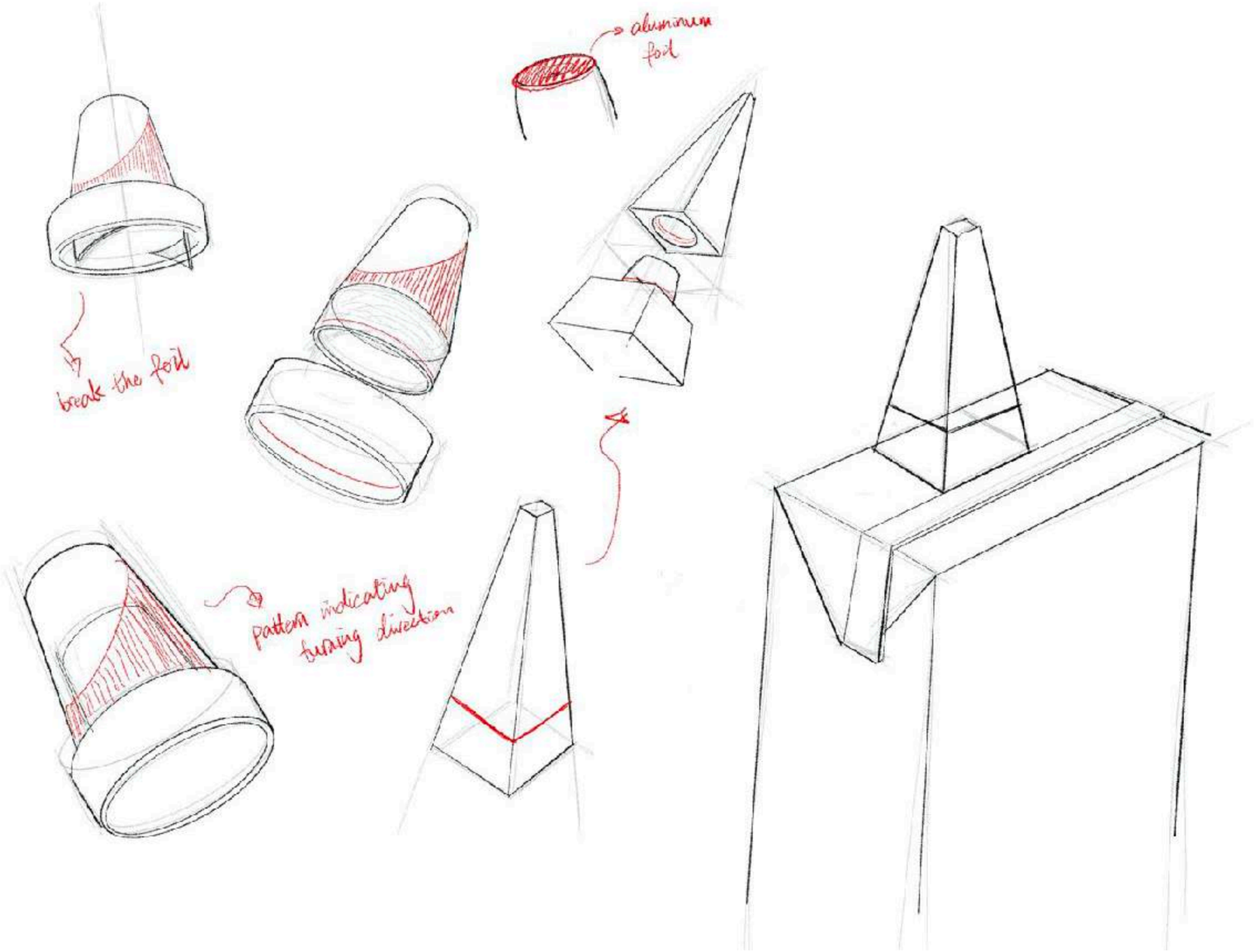




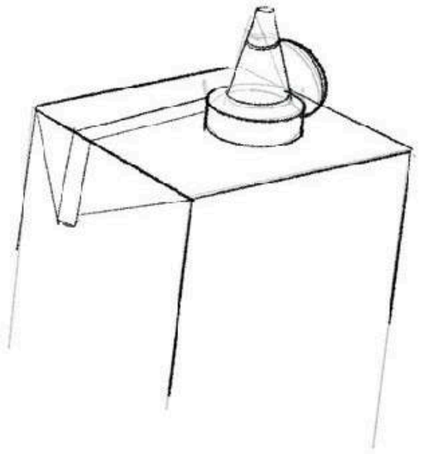
Sauce

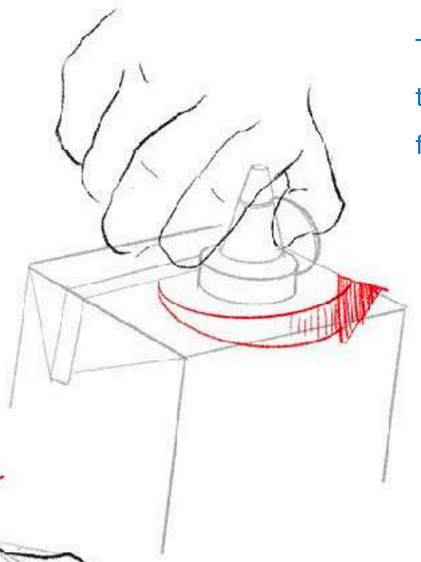


Sauce


aluminum foil
break the foil
pattern indicating turning direction

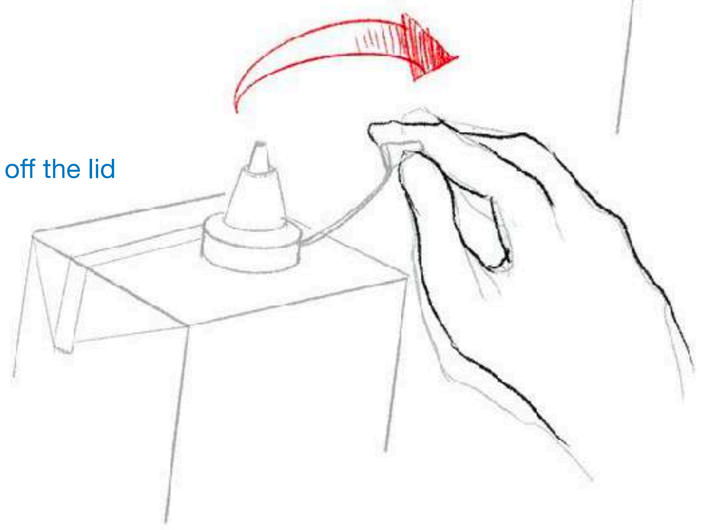
Sauce

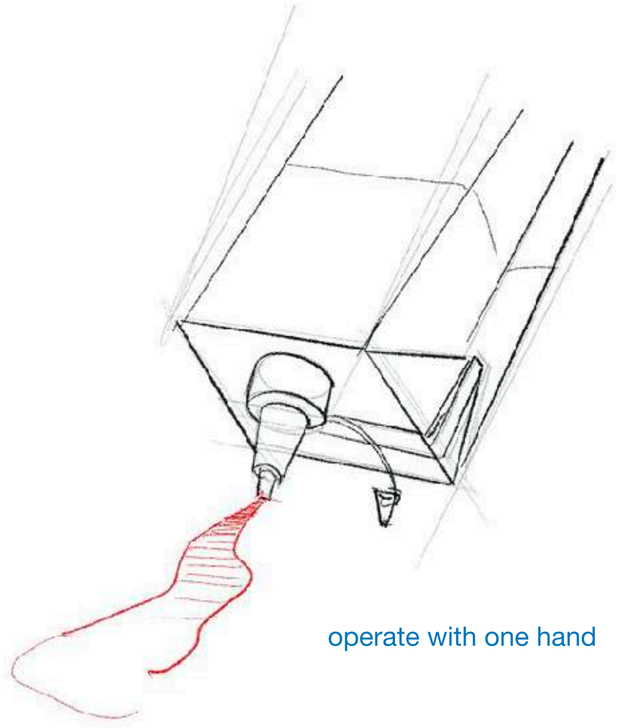




Twist half way to break the aluminum foil for the first time

Take off the lid





operate with one hand

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Sauce

2.
CHUNKY FOOD

Countries eat pickled food

and more...

https://firstwefeast.com/eat/2014/02/pickles-recipes-from-all-over-the-world/mango-pickle-india

Morocco

Preserved lemon

Preserved olive

Preserved food from Morocco

- mostly glass jars

https://www.casablancamarket.com/collections/moroccan-condiments
https://www.thespruceeats.com/moroccan-foods-to-bring-home-2394281

Pickled food

- pickled food need to be **stored in dark and cool place** to decrease photo-degradation and increase storage life of the food

https://www.quora.com/Why-do-we-store-pickles-in-glass-containers-Doesnt-that-harm-them#:~:text=Glass%20is%20good.,%2C%20hard%20'n%20clean%20glass.
https://www.streetdirectory.com/food_editorials/health_food/vegetables/carefully_select_the_pickle_jars.html#:~:text=The%20most%20common%20material%20used%20in%20making%20jars%20is%20glass.&text=These%20glass%20jars%20have%20plastic,hence%20prevent%20any%20possible%20contamination.

Homemade pickled food

clean the vegetables

clean the glass jar

pill out the skin

heat the water, vinegar and sugar mix

put vegetables into the glass jar and pour the hot liquid mix in

seal the mix with lid and store it in a dark and cool place

https://www.thekitchn.com/how-to-quick-pickle-any-vegetable-233882

Opening process

- always **need a spoon** to scoop out the food
- glass container with food is usually pretty **heavy**

United States

condensed cream

can food

pickled food

- mostly **metal cans**

Opening process

- opening up a can is always **hard**
- easily get **hurt**
- once it's opened, it **cannot be closed**

https://www.youtube.com/watch?v=v1KBCCHtttM&ab_channel=MultiScience2
https://www.youtube.com/watch?v=Ww1jACp_b2w&ab_channel=FindingFulfillment

Jam

- glass jars
- plastic containers

Zambia: relish paste for Nshima

rinse the vegetables for three times (get water from back of the house each time)

cut into small pieces

boil on charcoal

lids to keep the relish from bugs

ready to serve with nshima after all dishes are done

Takes a whole afternoon to prepare

Triple the process for 3 different veggies

Leftovers

Why glass?

- no chemical reaction between containers and the acidic food (pickled food)
- glass can be recycled
- glass can be easily reused in the household
- seal well when close

Why tin can?

- strong structure
- protection against light, water and air
- extend products shelf life
- sensitive to temperature

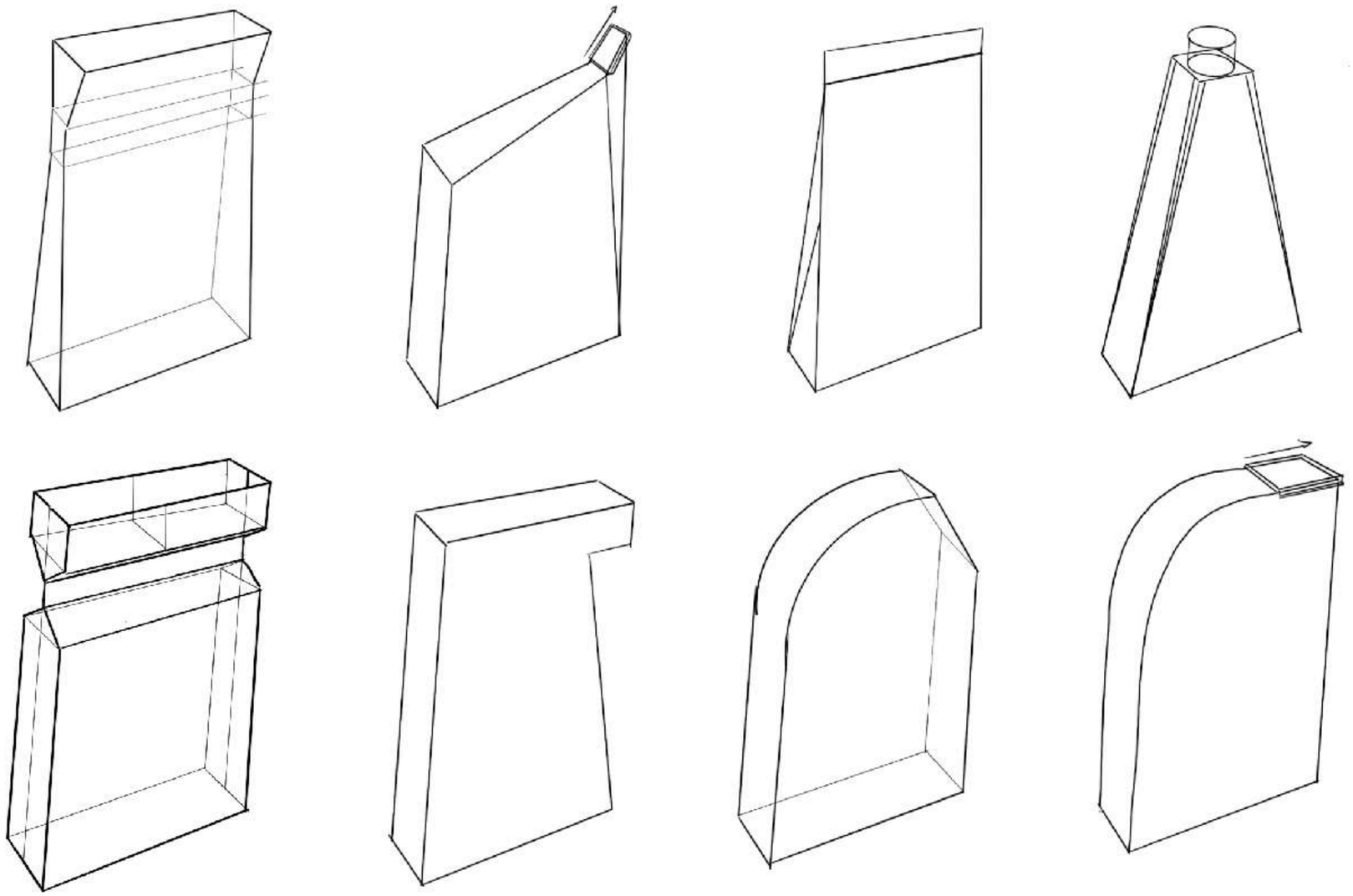
Why aseptic?

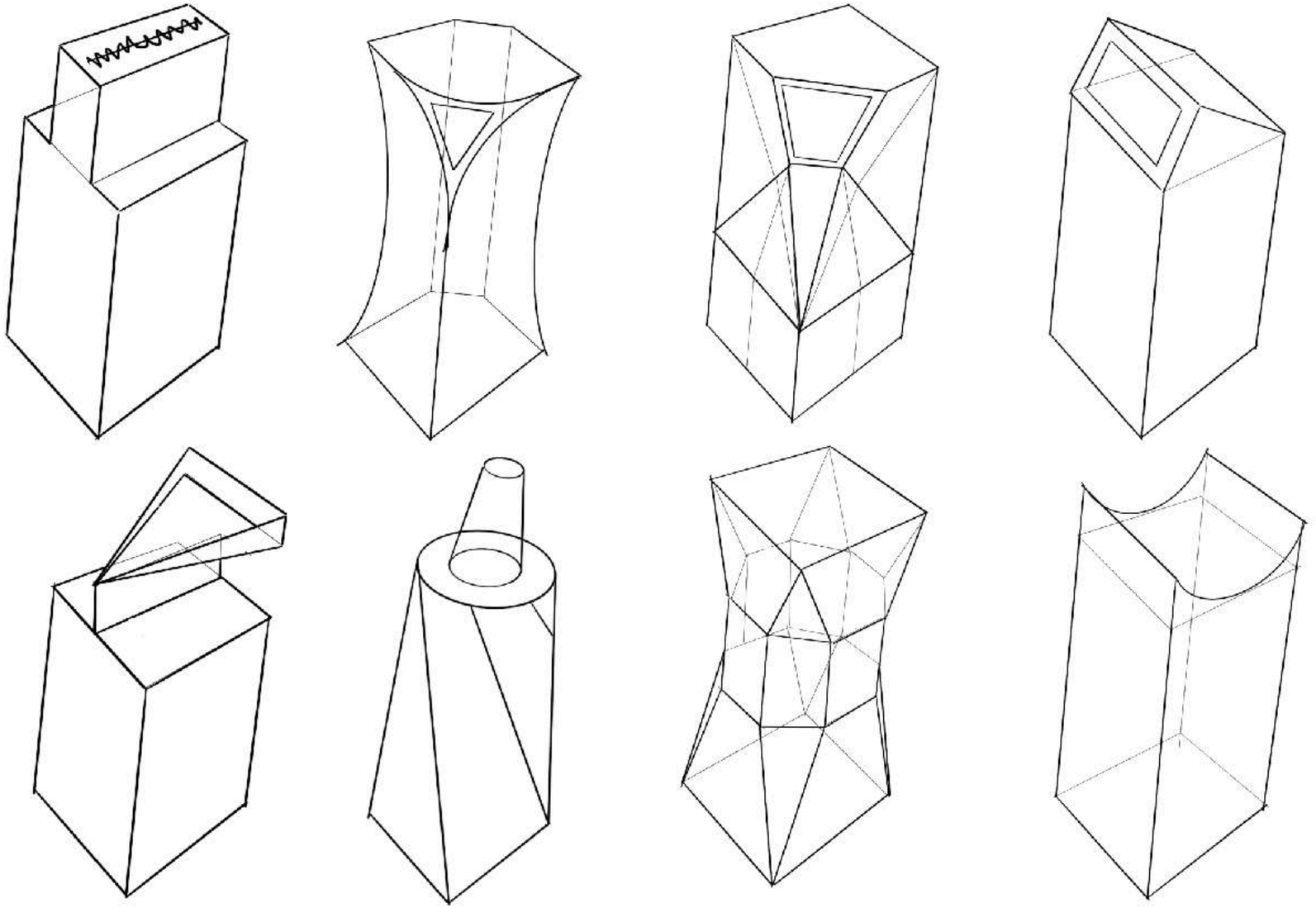
- seal well
- can be recycled
- no bacteria filling process
- totally block out light
- **light**
- **portable**

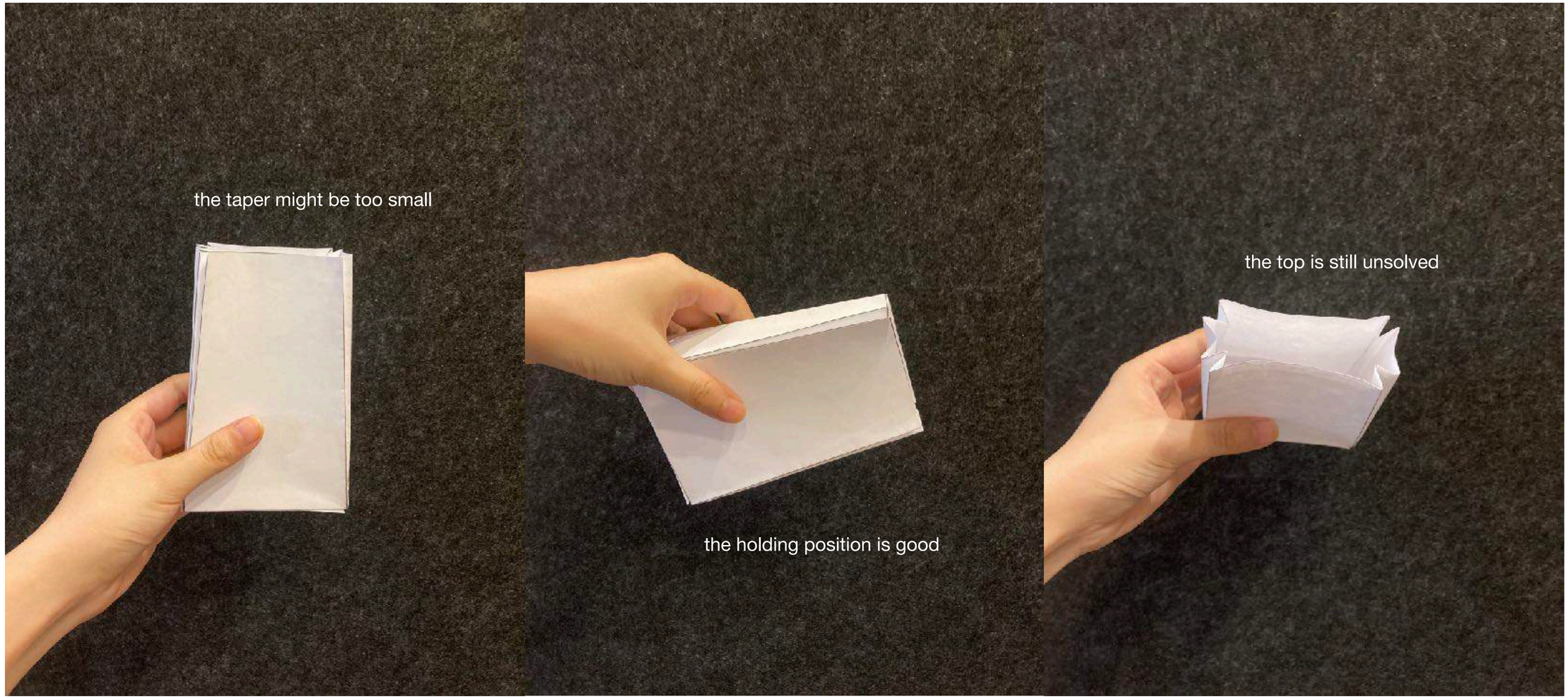
https://www.quora.com/Why-do-we-store-pickles-in-glass-containers-Doesnt-that-harm-them#:~:text=Glass%20is%20good.,%2C%20hard%20'n%20clean%20glass.
https://www.streetdirectory.com/food_editorials/health_food/vegetables/carefully_select_the_pickle_jars.html#:~:text=The%20most%20common%20material%20used%20in%20making%20jars%20is%20glass.&text=These%20glass%20jars%20have%20plastic,hence%20prevent%20any%20possible%20contamination.
https://www.tatasteeleurope.com/ts/packaging/applications/beverage

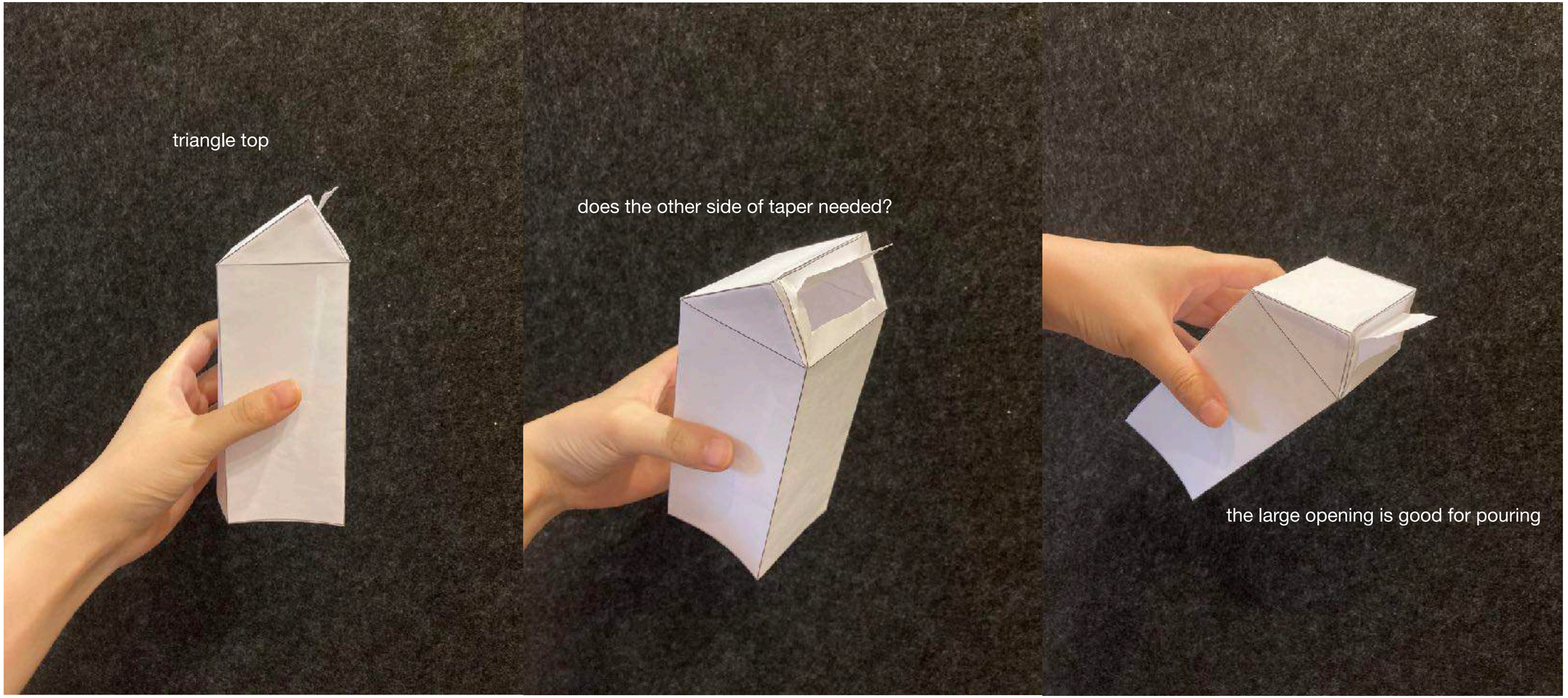
Our design goals

- most of the aseptic packaging are for liquid. they are not designed for chunky or pickled food.
- large opening
- easy to hold
- easy to pour out






the taper might be too small
the holding position is good
the top is still unsolved


triangle top
does the other side of taper needed?
the large opening is good for pouring

3. FAST FOOD DRINK CONTAINER

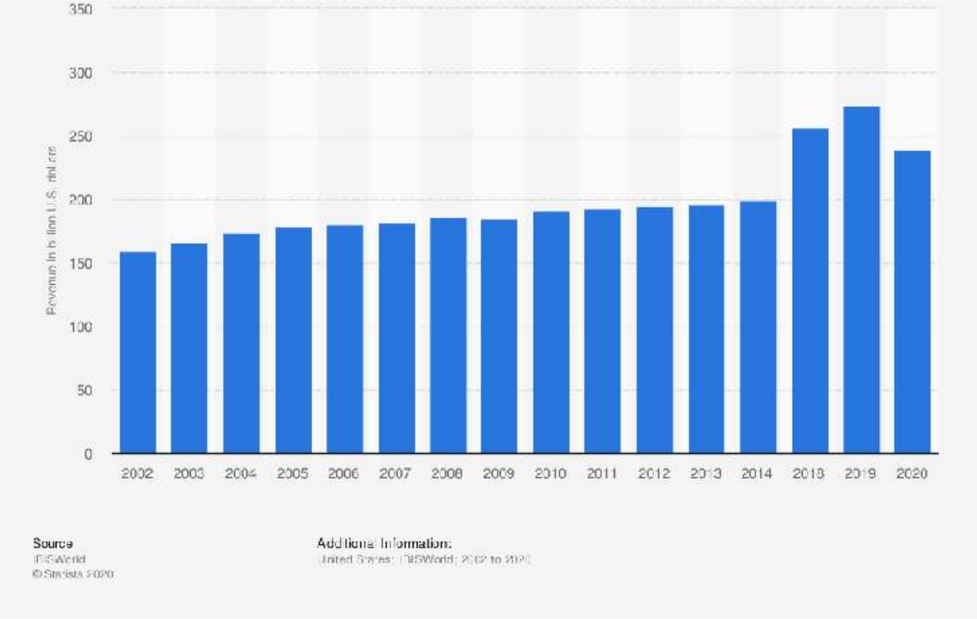
Which country has the most fast food?

- **America** has the largest fast food industry, and, has peppered the world's landscape with Subway, McDonalds, Kentucky Fried Chicken, Burger King, Starbucks, Dunkin Donuts, Wendy's among others, whose outlets can be found in over 100 countries.

Who eats the most fast food?

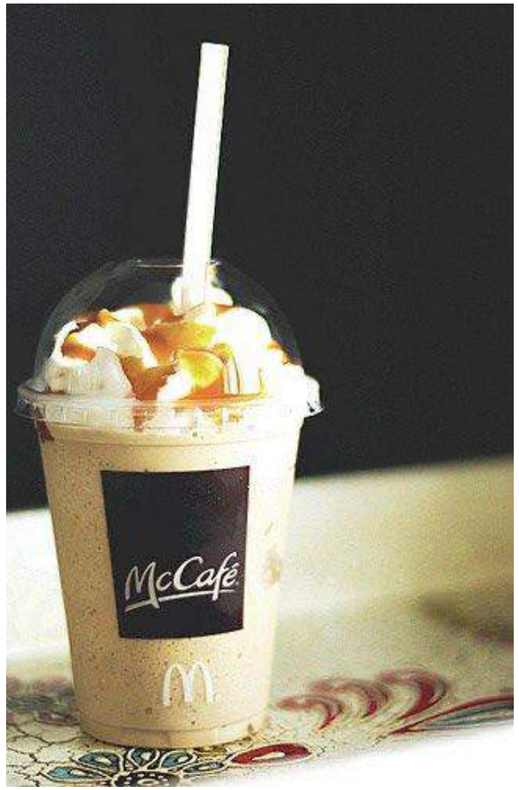
- According to the study, **38% of men** eat fast food on any given day, compared with 35.4% of women. **Young men** are particularly big users, with 46.5% of men aged 20 to 39 eating fast food, compared to 43.3% of women the same age.

Huge sales, many brands



RANK	COMPANY	CATEGORY	2018 US SYSTEMWIDE SALES MILLIONS	2018 AVERAGE SALES PER UNIT THOUSANDS	2018 FRANCHISELICENSE UNITS	2018 COMPANY UNITS	2018 TOTAL UNITS	TOTAL CHANGE IN UNITS FROM 2017
1	MCDONALD'S	BURGER	38,524.05	2,768.73	13,229	685	13,914	-122
2	STARBUCKS*	SNACK	19,700.00	1,349.32	6,332	8,493	14,825	895
3	SUBWAY*	SANDWICH	10,410.34	420.00	24,798	0	24,798	-1,110
4	TACO BELL	GLOBAL	10,300.00	1,600.00	6,126	462	6,588	142
5	CHICK-FIL-A*	CHICKEN	10,000.00	4,166.67	2,400	0	2,400	175
6	WENDY'S	BURGER	9,993.70	1,636.40	5,825	353	6,711	77
7	BURGER KING*	BURGER	9,950.00	1,357.00	7,278	49	7,327	101
8	DUNKIN'	SNACK	8,787.00	933.00	9,419	0	9,419	278
9	DOMINO'S*	PIZZA	6,600.00	1,123.00	5,486	390	5,876	258
10	PANERA BREAD*	SANDWICH	5,734.63	2,739.91	1,131	963	2,093	50
11	PIZZA HUT	PIZZA	5,500.00	878.00	7,432	24	7,456	-41
12	CHIPOTLE	GLOBAL	4,800.00	2,000.00	0	2,491	2,491	83
13	SONIC DRIVE-IN	BURGER	4,447.10	1,250.00	3,427	179	3,606	13
14	KFC	CHICKEN	4,400.00	1,210.00	4,019	55	4,074	-35
15	ARBY'S	SANDWICH	3,886.90	1,177.00	2,197	1,132	3,329	46
16	LITTLE CAESARS*	PIZZA	3,800.00	874.00	3,700	562	4,262	-74
17	DAIRY QUEEN	SNACK	3,650.00	1,204.58	4,404	2	4,406	-49
18	JACK IN THE BOX	BURGER	3,466.13	1,553.00	2,100	137	2,237	-14
19	PANDA EXPRESS*	GLOBAL	3,400.00	1,616.00	125	1,979	2,104	93
20	POPEYES*	CHICKEN	3,325.00	1,415.00	2,327	41	2,368	148

Fast food juice/coffee/smoothie



Starbucks lid change

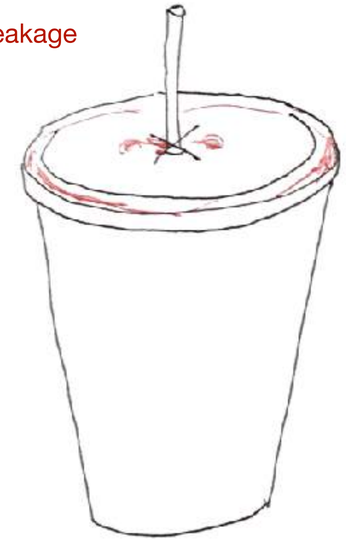
- Traditional cup

- Canada only
- Environmentally friendly
- Recyclable

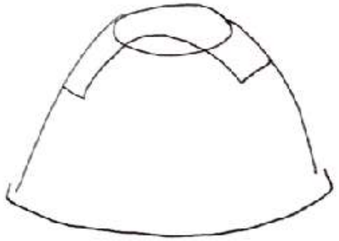
- Not leak proof
- Fitting issue
- Can’t drink caramel at the bottom of a caramel Macchiato

Leakage during delivery

Soda leakage



The top is open



- Sometimes a transparent tape is used
- Unhygienic

Smoothie

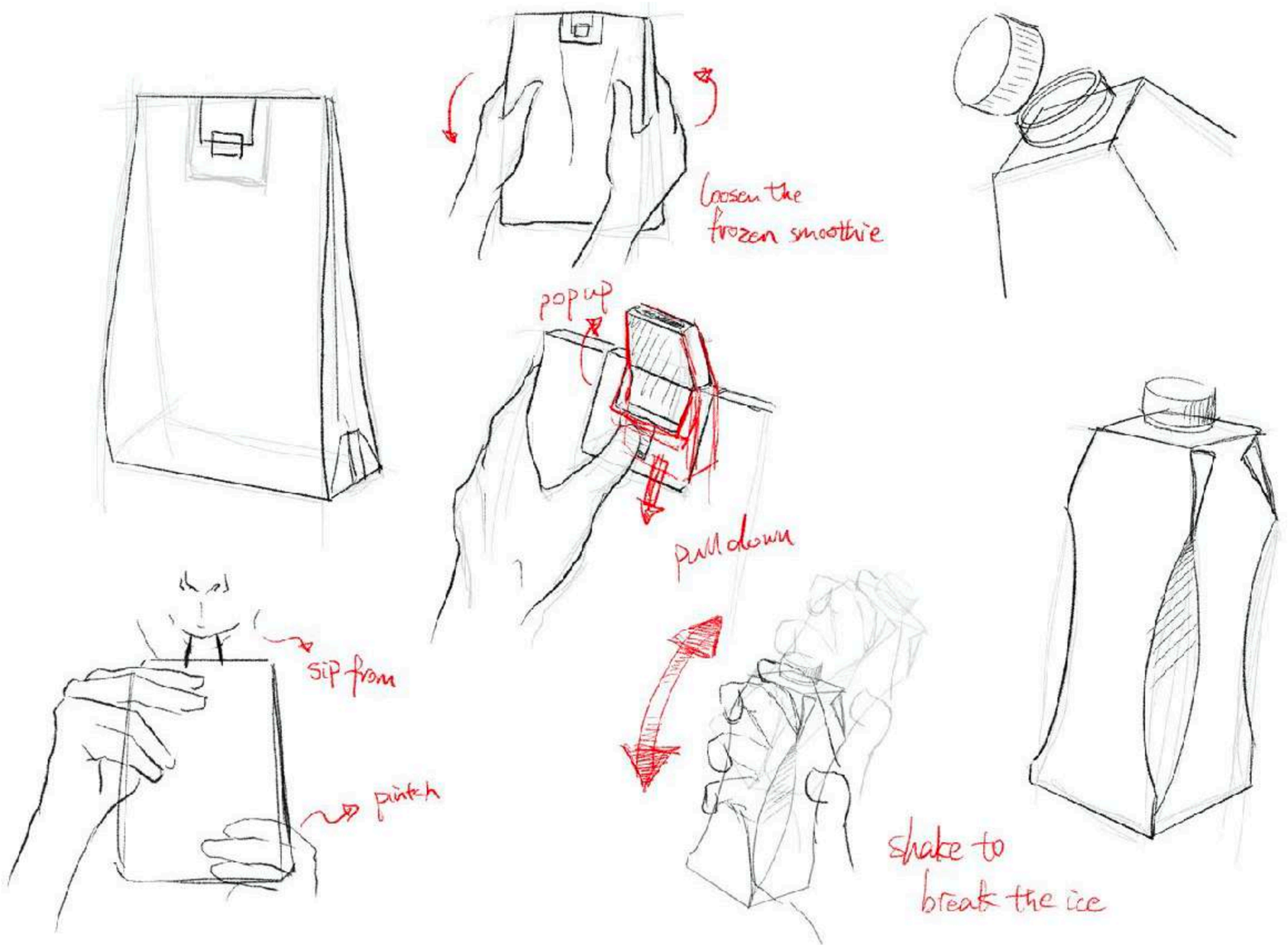
Problem

- Smoothie stores are not very popular in eastern countries
- Raw materials are expensive
- Current way of transporting requires extra energy to keep it from melting

Solution: bring smoothie home

- Smoothie under room temperature in the carton
- Freeze for 1hr after buying

Smoothie


Loosen the frozen smoothie
pop up
pull down
sip from
pinch
shake to break the ice

Smoothie

Smoothie

EMERGENCY SUPPLY

Vietnam: water filter

- Disease transmitted through direct contact with **contaminated water**

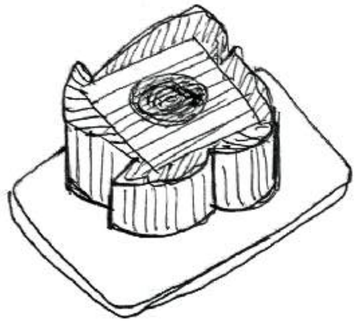
In the Northern region of Vietnam around Hanoi, there is evidence of **arsenic contamination** in the drinking water. About 7 million people living in this area have a severe risk of arsenic poisoning and since elevated levels of arsenic can cause cancer, neurological and skin problems, this is a serious issue.

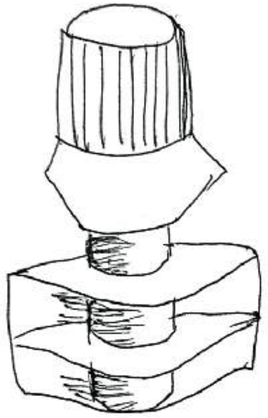
Most pitchers will remove chlorine and elements that leave a bad taste, but very few actually remove lead. In fact, only two pitchers that Consumer Reports tested actually claim to filter out lead. If there are serious contaminants in your water, **a water pitcher filter may not be enough to solve your problem.**

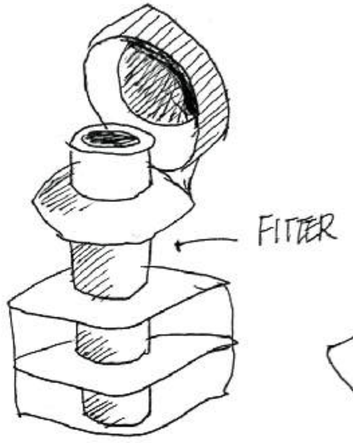
Closure

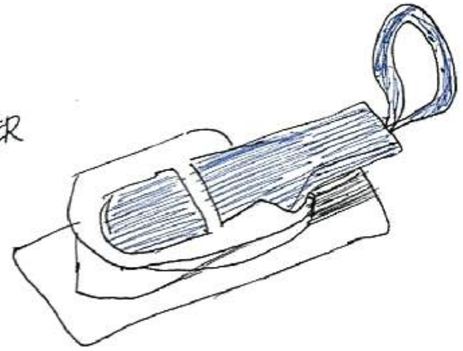
- 3 layers of filter
- May solve the problem of lightly-contaminated water

Easy to open



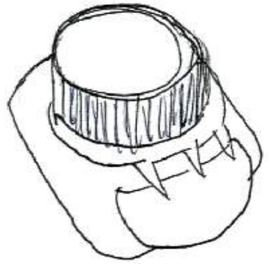


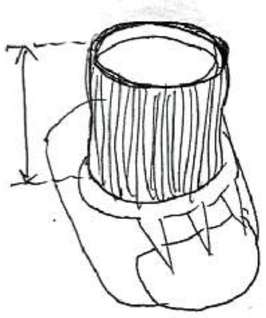




Easy to open

Firm





Hight tightness,
easier to open

Drink directly

Vietnam: when sip must function as a straw

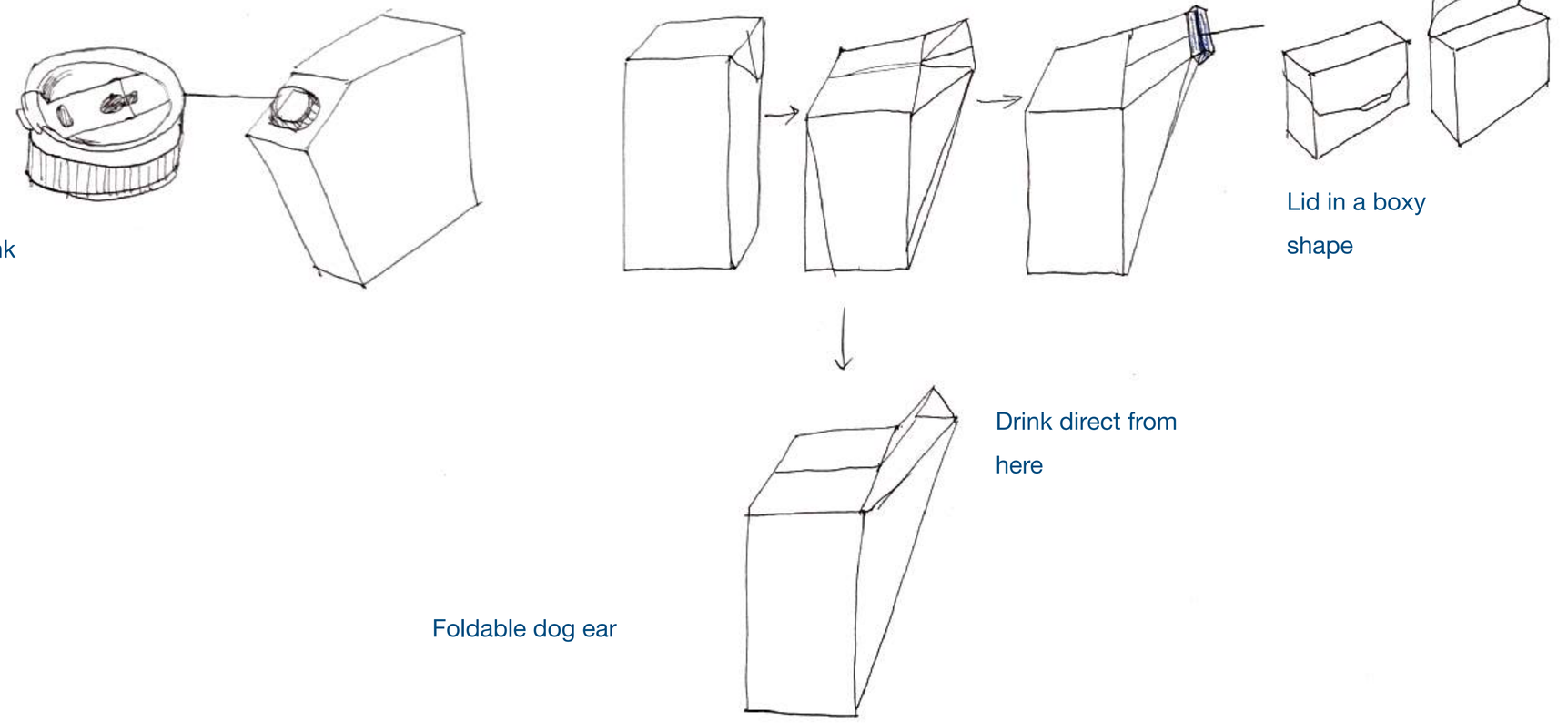
"…where they spent three days perched on boards in their attic, with hardly any food or water, until the floodwaters receded."

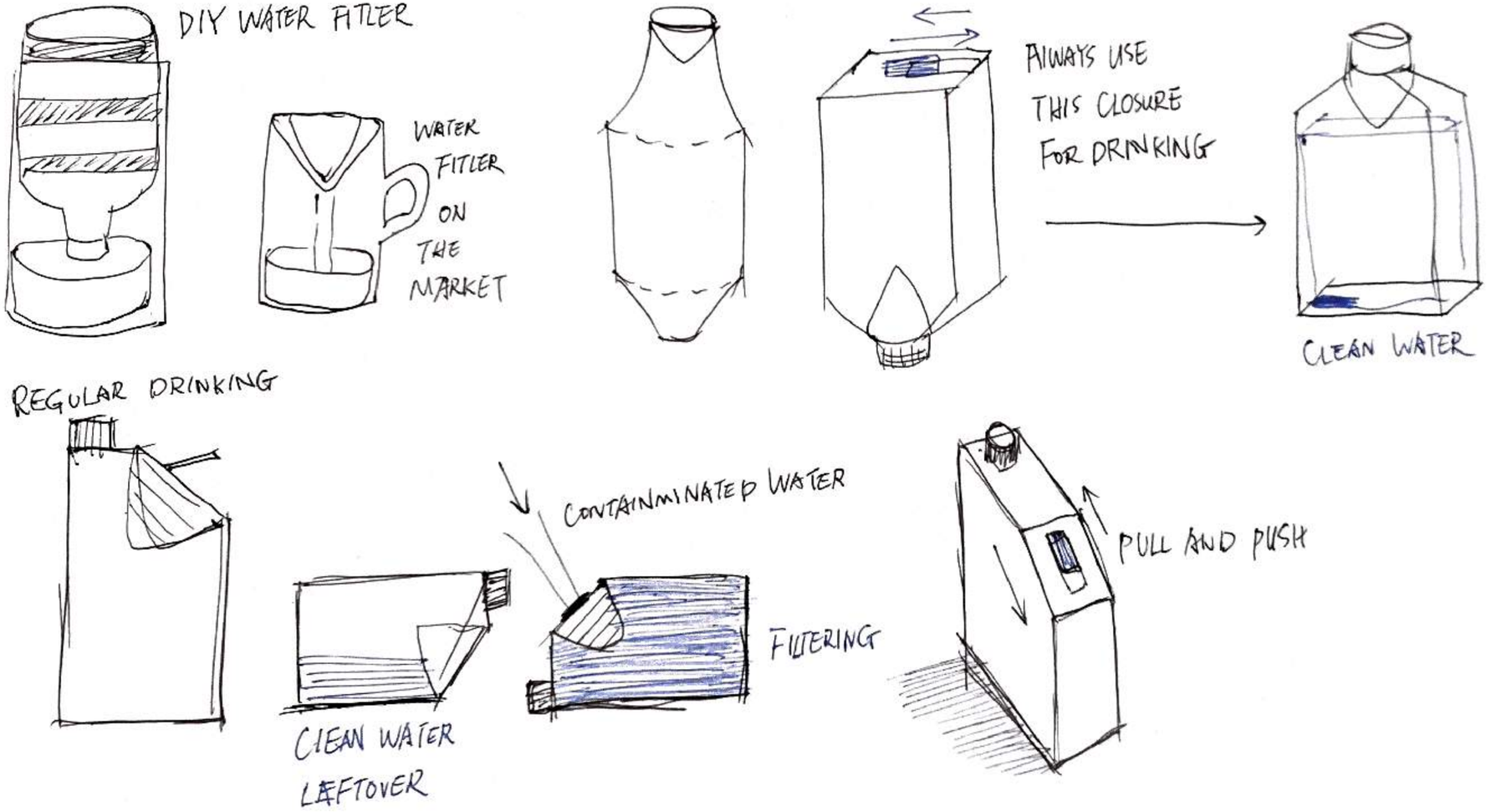
Must consider:

- High strength
- Reduction of steps
- Convenience of drinking
- Tightness of sealing
- Light weight overall

- More than 2.5 million children at risk of disease, **poor nutrition, malnutrition**, and delayed development during the pandemic.

Firmer closure/ Removing sip

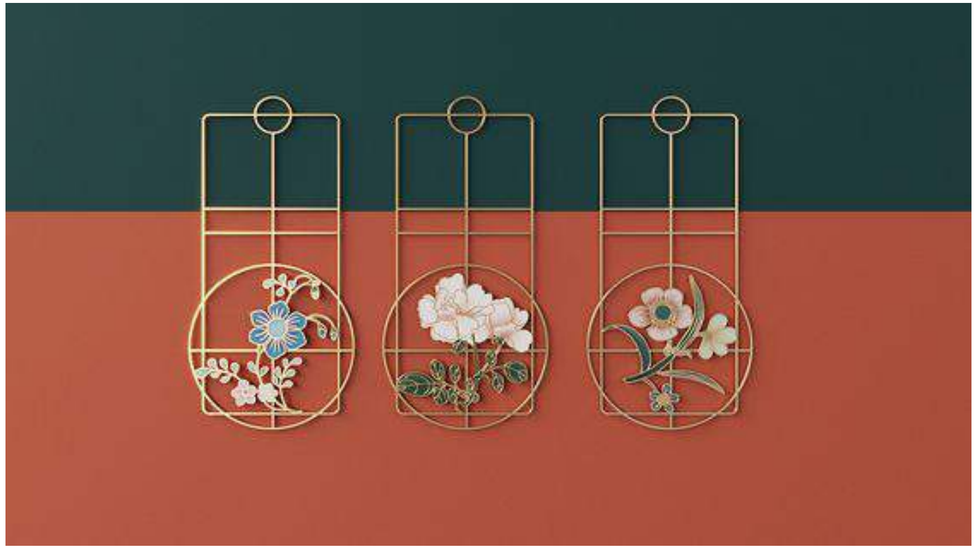



DIY WATER FITLER
WATER FITLER ON THE MARKET
ALWAYS USE THIS CLOSURE FOR DRINKING
CLEAN WATER
REGULAR DRINKING
CONTAINMINATED WATER
FILTERING
PULL AND PUSH
CLEAN WATER LEFTOVER

Vietnam: 2nd life of packaging after recycling

- People live in rural areas use low-grade packages (large bags, **recycled** carton boxes, polystyrene boxes, bulk) to transport fresh food, which leads to food waste.

CULTURE



China

China

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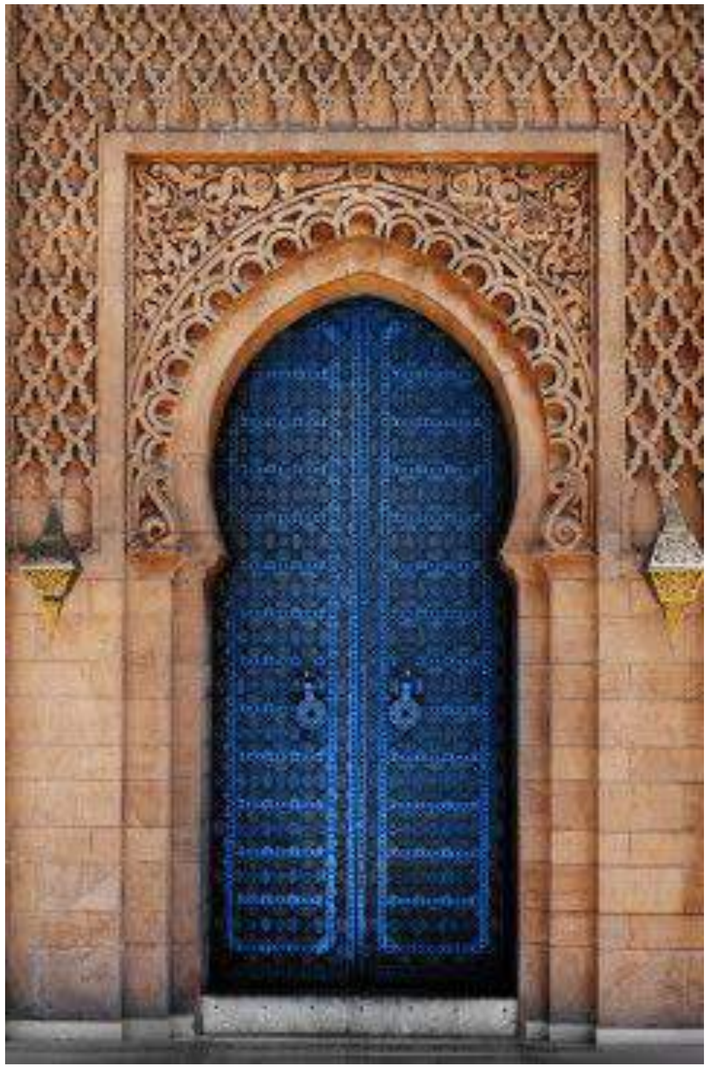
Morocco



United States

Zambia

Vietnam

THANK YOU!

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WEEK 7

FEEDING THE WORLD

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ASEPTIC CARTON IS GREAT ;-)

It has succeeded in the diary and beverage industry,
and it will behave even better in the food industry.

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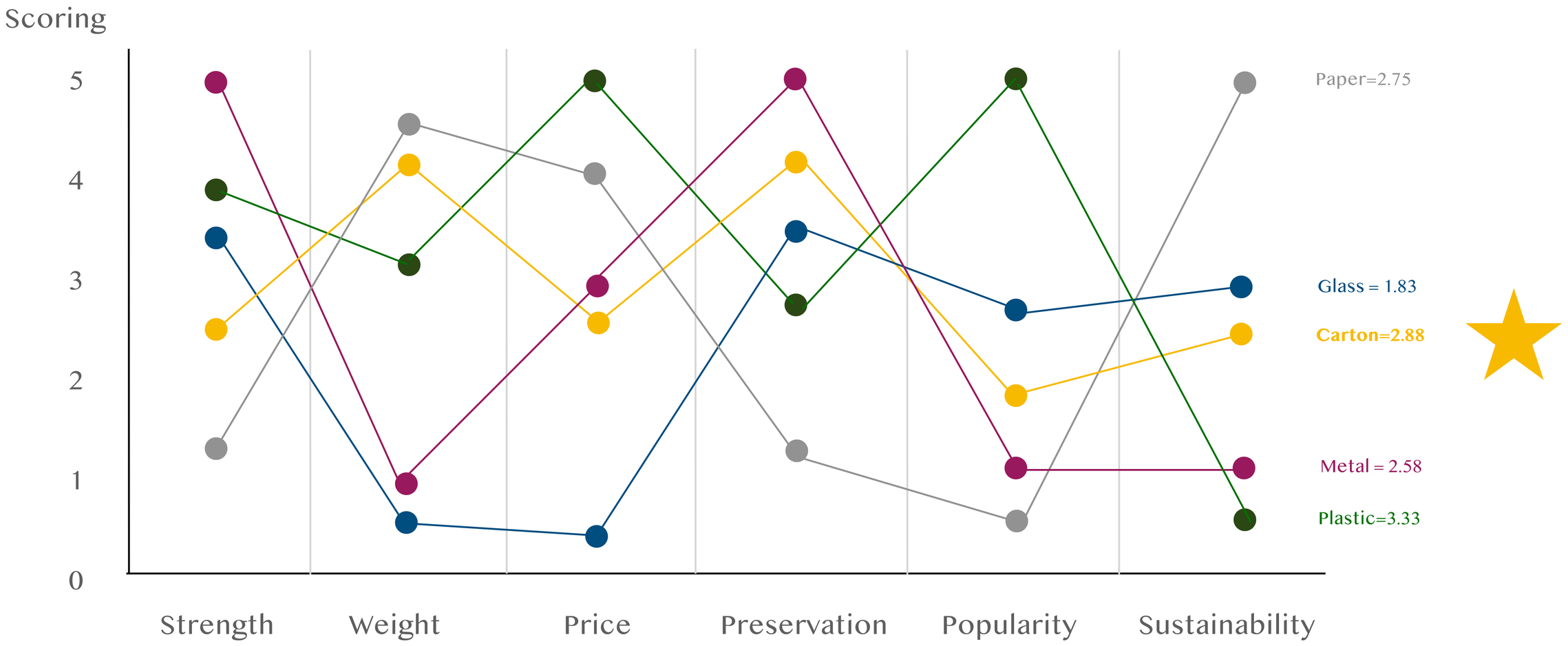
RESEARCH TAKEAWAY

- Aseptic carton is capable of replacing metal can and glass in food packaging industry.
- Aseptic cartons can be directly opened and heated.
- SIG's alternative to aluminum allows a much safer way of eating and drinking.

CARTON RANKS THE SECOND



COMBISAFE AND NEW FILLING SYSTEM

- Combisafe extends the scope of food products to those containing chunky particulates.
- The machine fills the Combisafe pack, which is open at the top, then seals the top ultrasonically.
- It then conveys the carton packs automatically into an autoclave, where the package and product are sterilized together.
- SIG's food filling technology is designed to fill products with a particulate size of up to 25mm, fibre length of up to 40mm and solid content of up to 50%.

https://www.sig.biz/en/packaging/food-packaging/combisafe-details

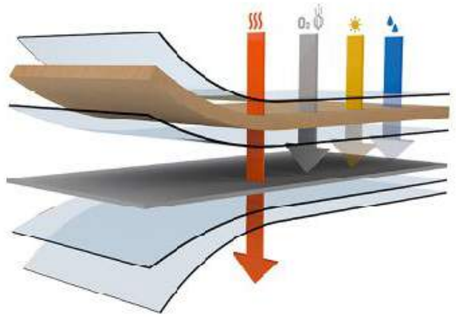
COMBISAFE VS CAN/GLASS

- A wide range of products
- Light weight, save up to 93% packaging weight compared to glass
- Fewer emission, sustainable
- Easy to open
- 130% better performance in space utilization compared to metal can
- 2-stage filling stages, precise measurement of ingredients
- Much larger printable surface, eye catching display

https://www.sig.biz/en/packaging/food-packaging/combisafe-details

https://foodnewsinternational.com/2014/02/04/europe-sig-combiblocs-carton-pack-combisafe-offers-fresh-look-for-canned-products/

MICROWAVABLE CARTON



- Demand for hot drink of 50 key countries is expected to increase by 15% in value terms, and by 22% in volume terms between 2014-2019. 72% of Chinese consumers who want to consume hot drinks were dissatisfied with the available heating methods.
- Heat & Go is aseptic
- It replaces the aluminum film found inside with a high-barrier alternative.
- allow drinks to be microwaved without compromising product quality
- Heat&Go structure can be heated up to 60°C without damaging package integrity

https://www.sig.biz/en/packaging/beverage-packaging/heat-go-details

https://www.packaginginsights.com/news/sigs-heatgo-microwaveable-carton-to-premiere-with-seoul-soy-milk-drink.html#:~:text=Click%20to%20EnlargeThe%20Heat%26Go,%2C%20caf%C3%A9%2C%20home%20or%20office.

Andrew's Story

ABOUT ME

Hi, my name is Andrew, and I have been volunteered in American National Red Cross for 5 years.

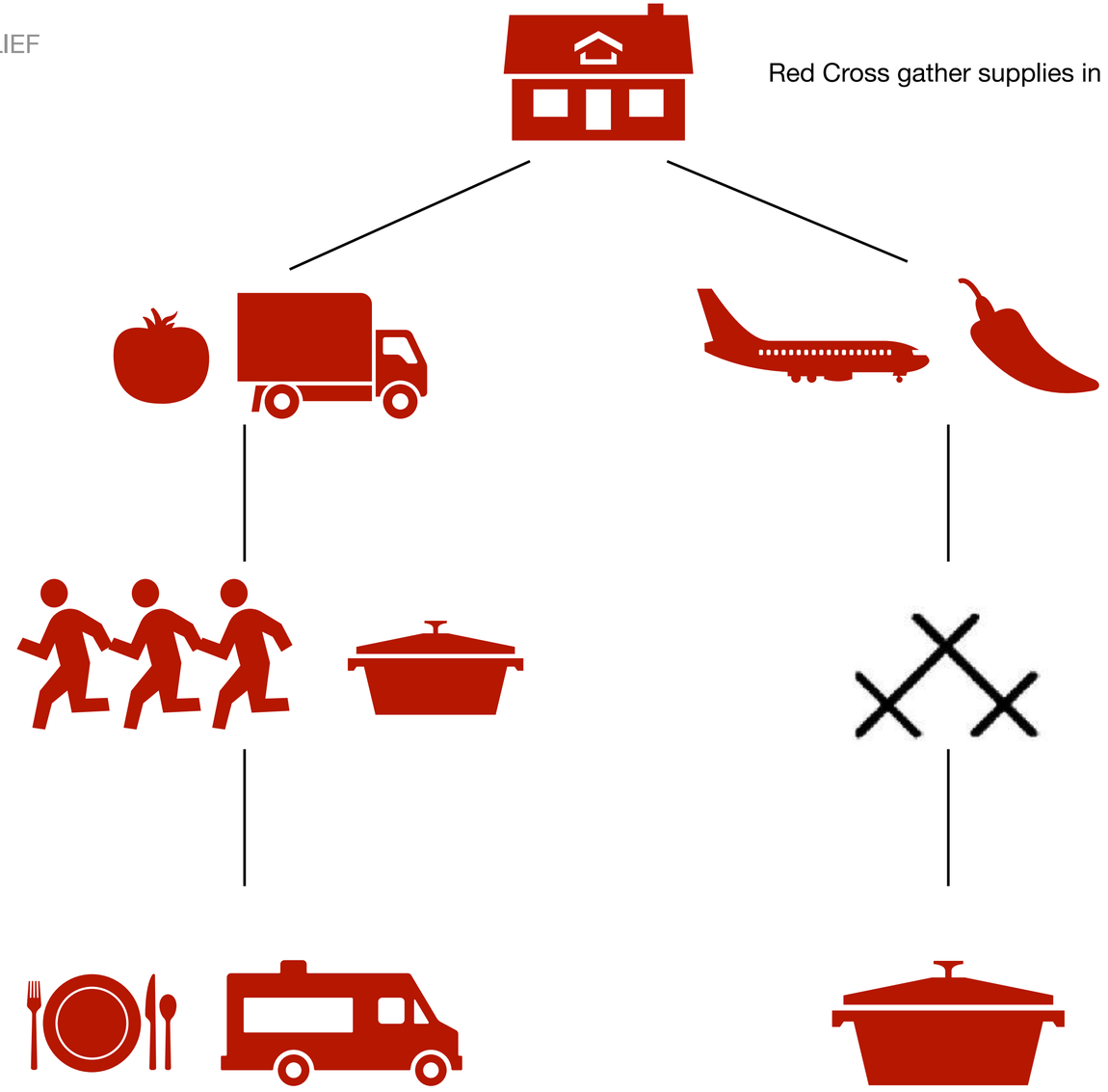
https://www.wbur.org/hereandnow/2017/12/22/andrew-enos-red-cross-disasters

RED CROSS AND ME

The American Red Cross is a humanitarian organization that provides emergency assistance, disaster relief, and disaster preparedness education,

We helped a lot of people during hurricane, winter storm, earthquake, home fire and wild fire. I'm very proud of Red Cross.

FOOD DISTRIBUTION IN DISASTER RELIEF



Red Cross gather supplies in the warehouse.

Food truck transport fresh food to local shelters.

Red Cross airdrops food kit, including dried food, beans, oil, flours, etc. to war areas.

Red Cross works quickly with local communities to cook hot meals for thousands of people.

Red Cross distributes food in lunchboxes in its vehicles.

People cook at home.

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FOOD DURING DISASTER RELIEF

Volunteers provide free hot meals in disaster relief.

Usually, my colleagues and I collaborate with local communities, cook food in huge pots until they become mushy, distribute them evenly in polystyrene lunch boxes.

FOOD PREPARATION

In extreme situations, thousands of people gather together in the shelter at once. They are cold, terrified, hungry, and they urgently need hot meal to survive.

Food bank transports fresh food to us, so the preparation takes much longer than expected.

OBSERVATION

Some people are **mentally vulnerable** after a disaster, because they lost their most precious people/thing. They may resist eating, drinking, or in the worst scenario, living.

I'm worried of them, but I don't know how to help. However, I think at that sorrowful moment, people must need some comforting **emotional care**.

FOOD THAT ASSIST CHARITY ORGANIZATION

The most important thing for disaster victims is **time**. People must be rescued and fed immediately after a catastrophe.

As a volunteer, I wish we can cook much efficiently and provide more nutritious food. I also hope we can take care of people's mental health.

OUR SOLUTION

Our design provides high functionality, efficiency, and emotional care.

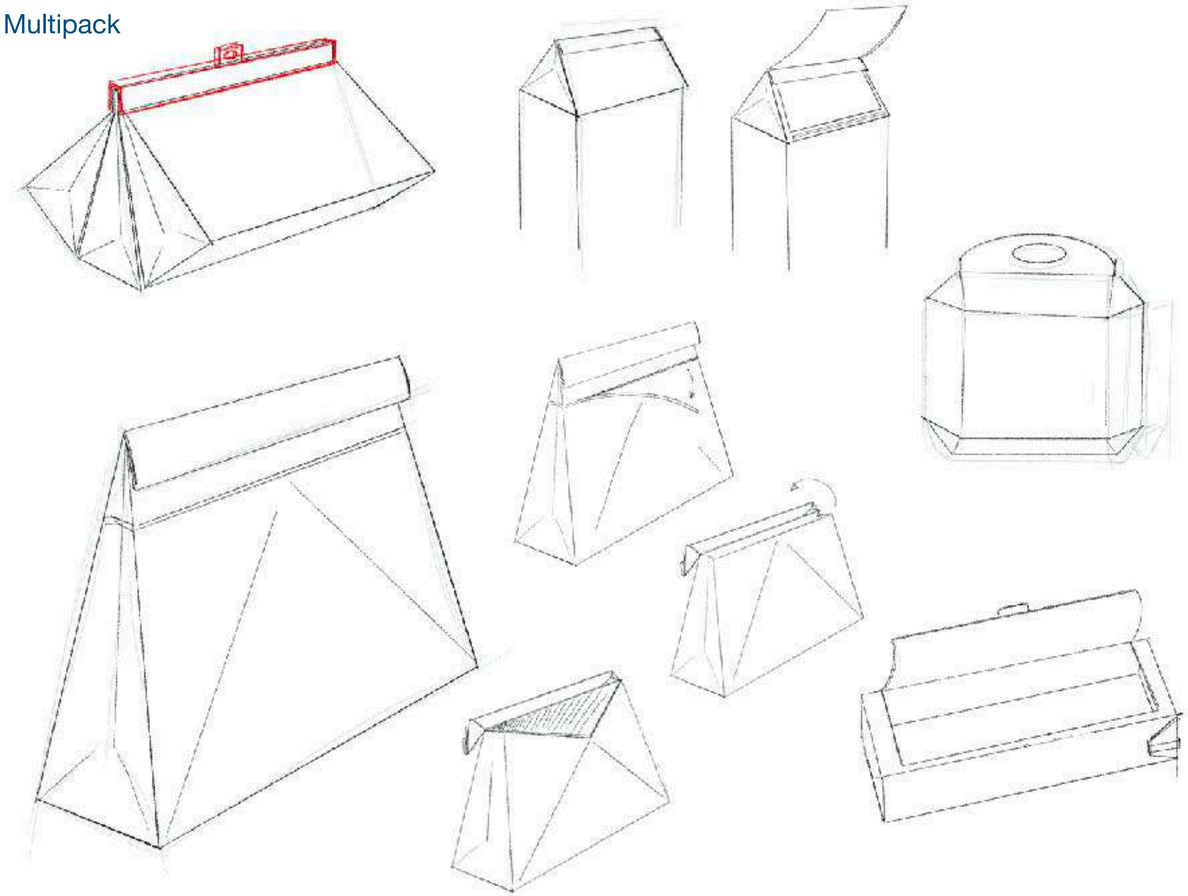
Main Directions

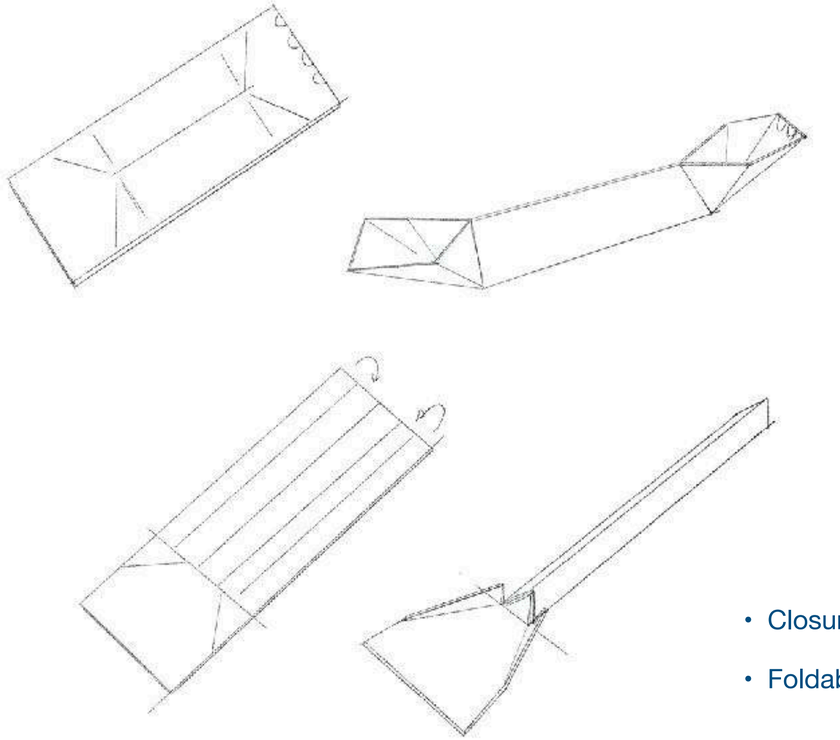
1. Ready to eat (carton as container)
2. airdrop: multipack / tracking

Emotional design

Ready to eat

Multipack



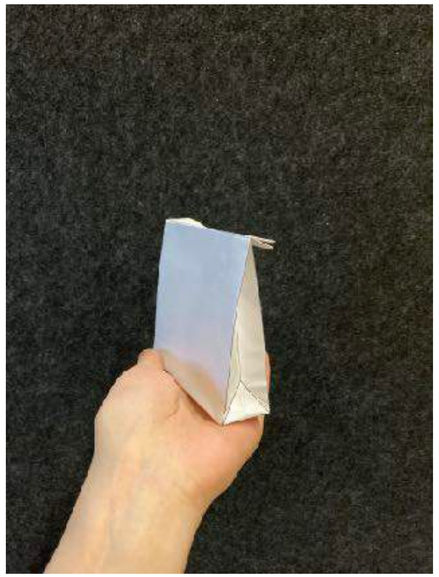


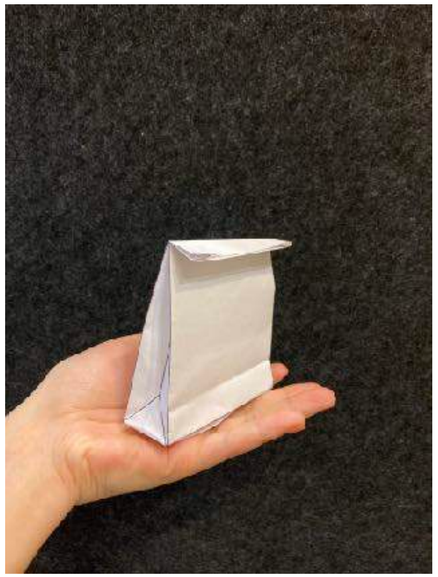
- Closure at front
- Foldable utensil

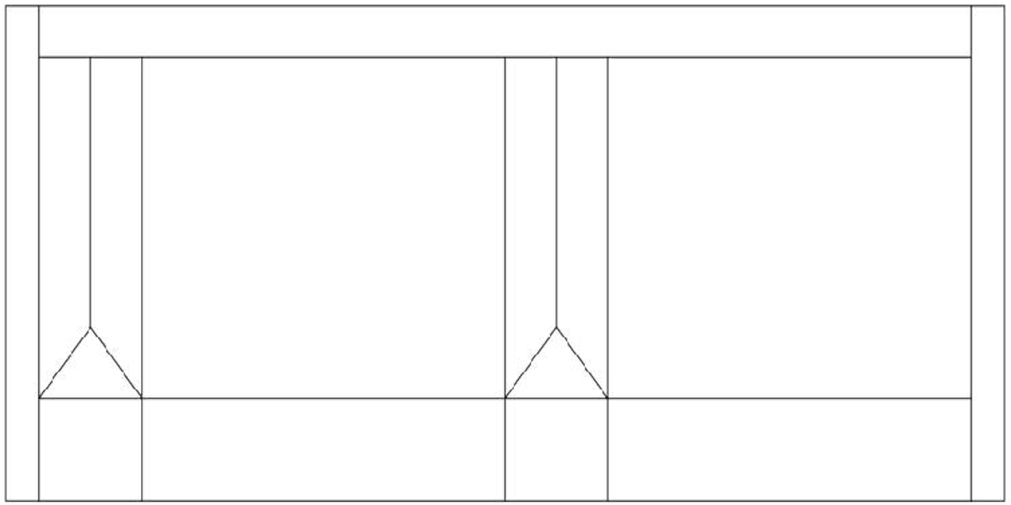
Removing the dog ear

Structure

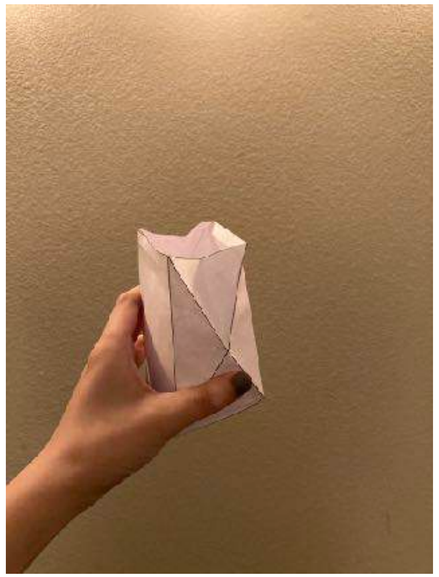
Ready to eat

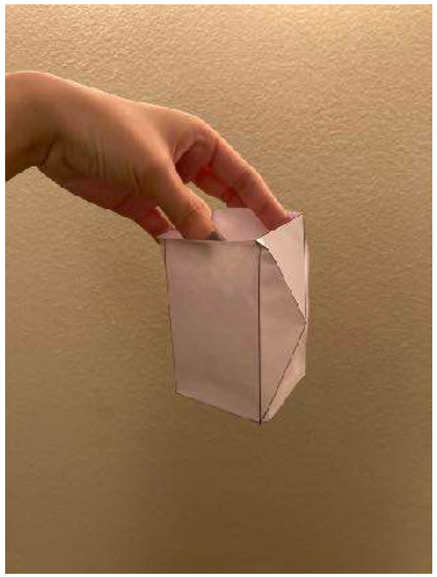


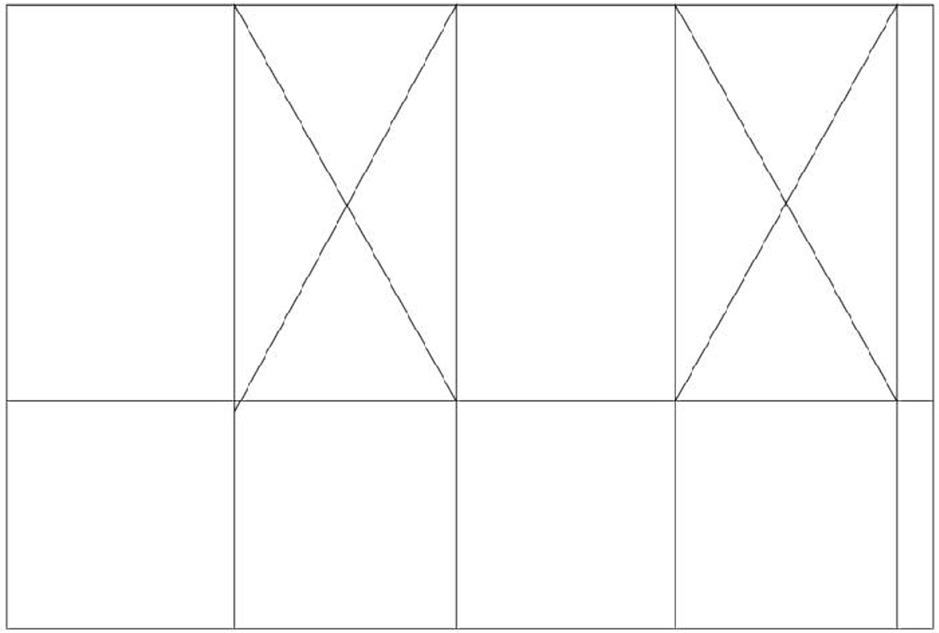




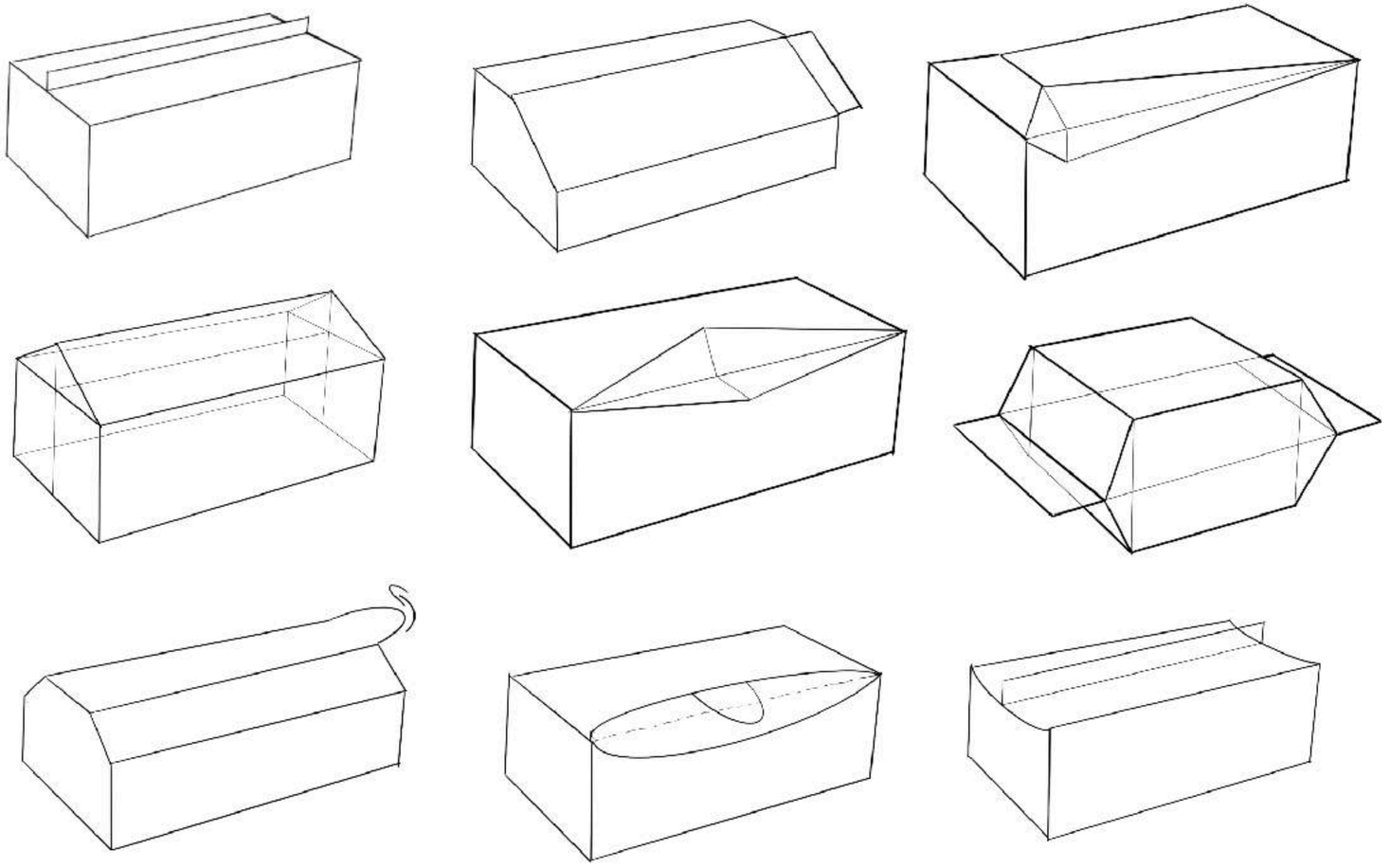
Ready to eat







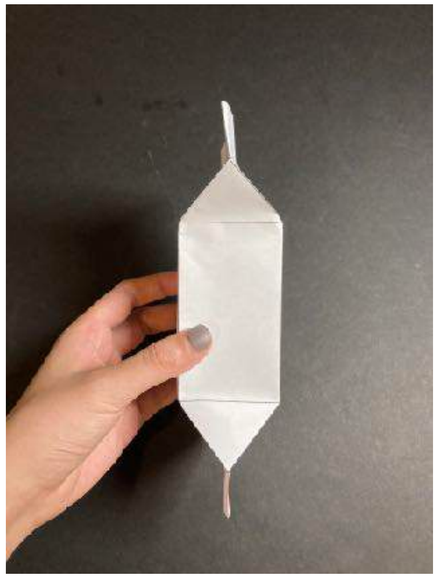
Ready to eat

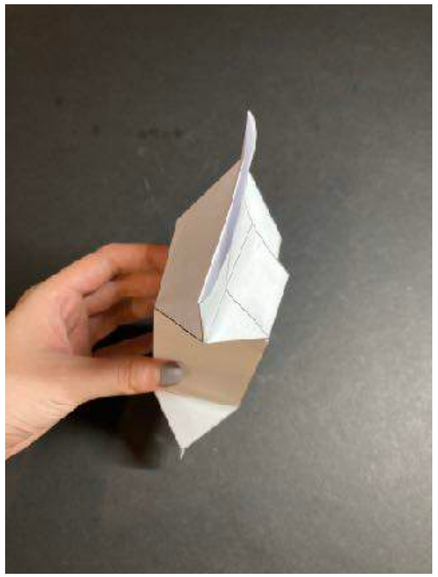


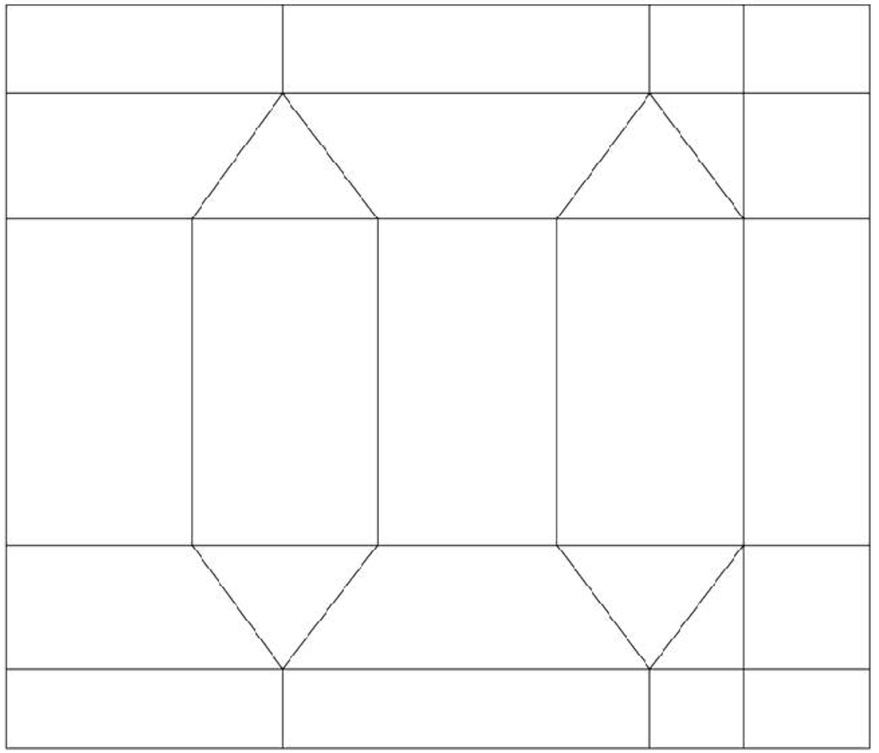
Bento box as direct container

Tiny tap for easy opening ceremony

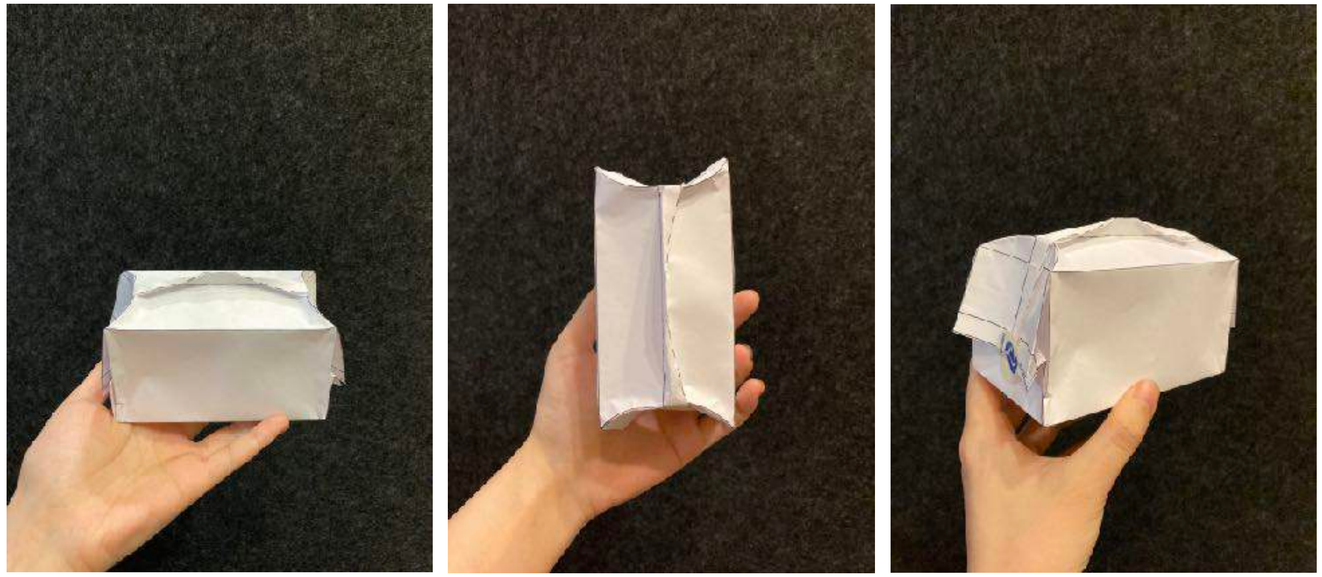
Ready to eat

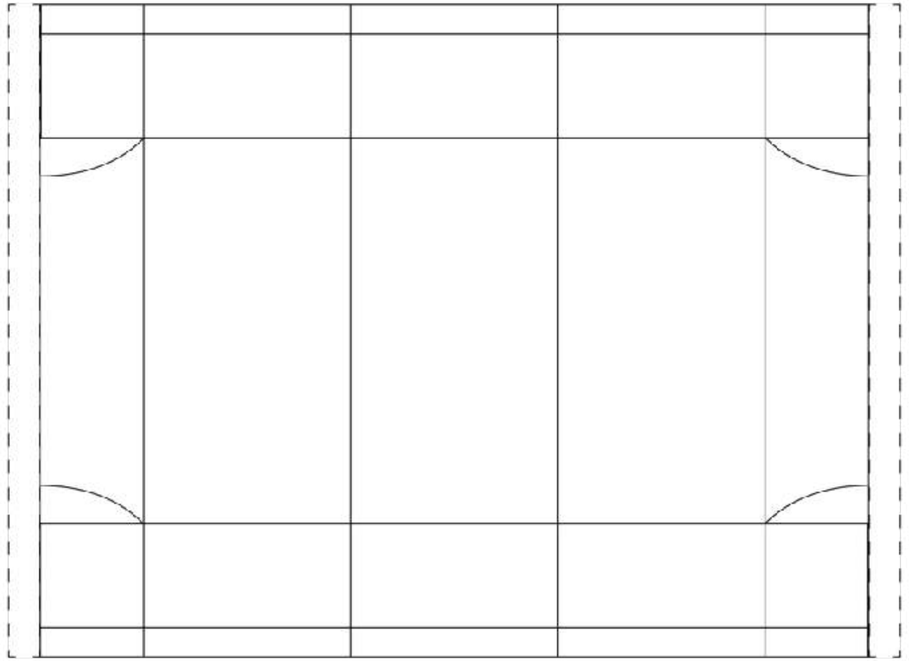






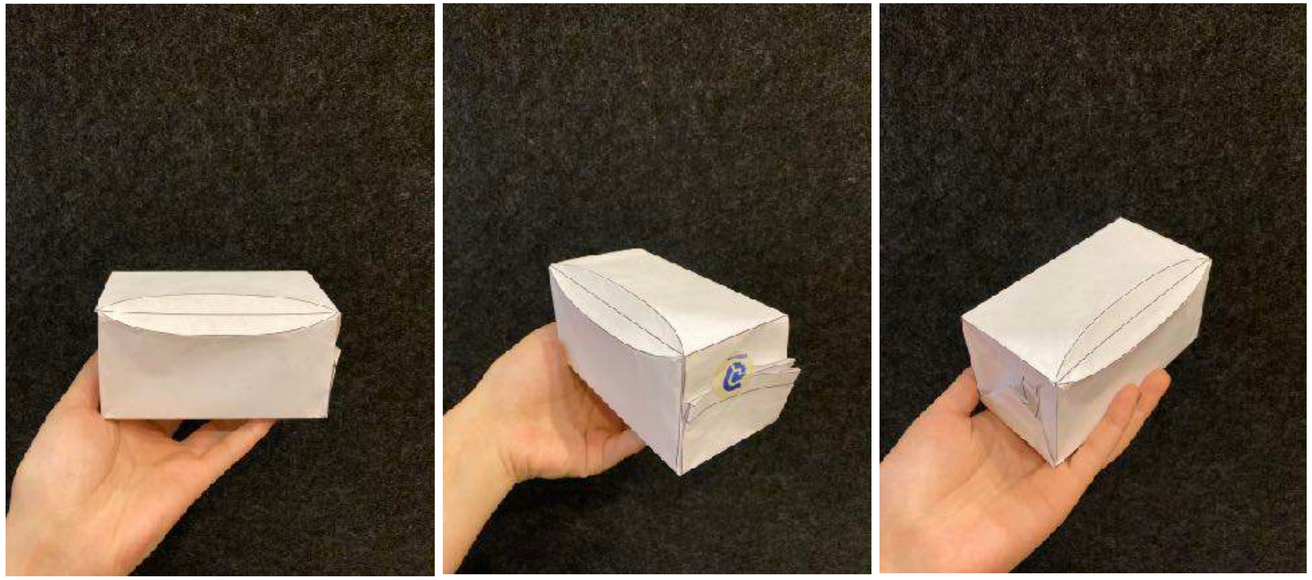
Ready to eat

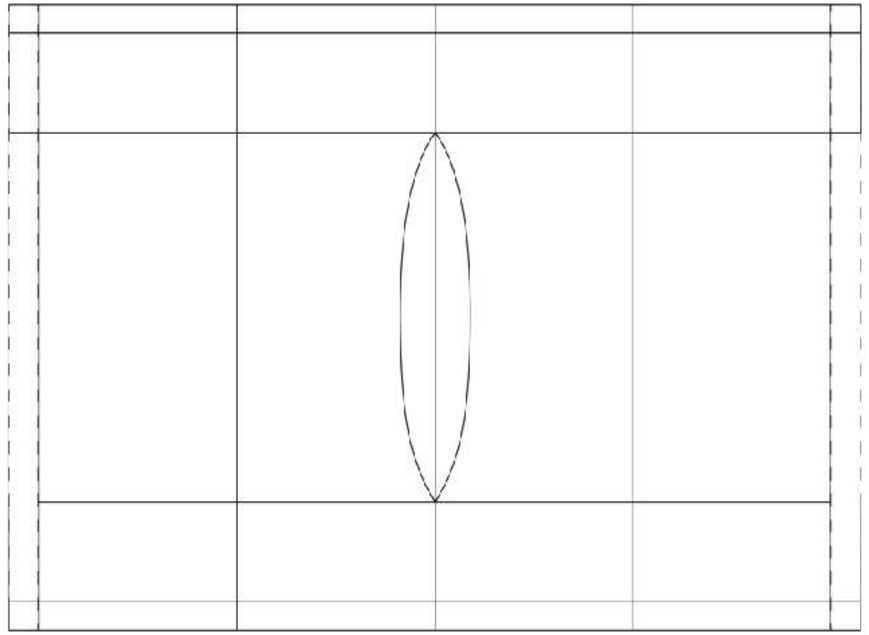




if the top needs to stand then the dialine need to have some curve

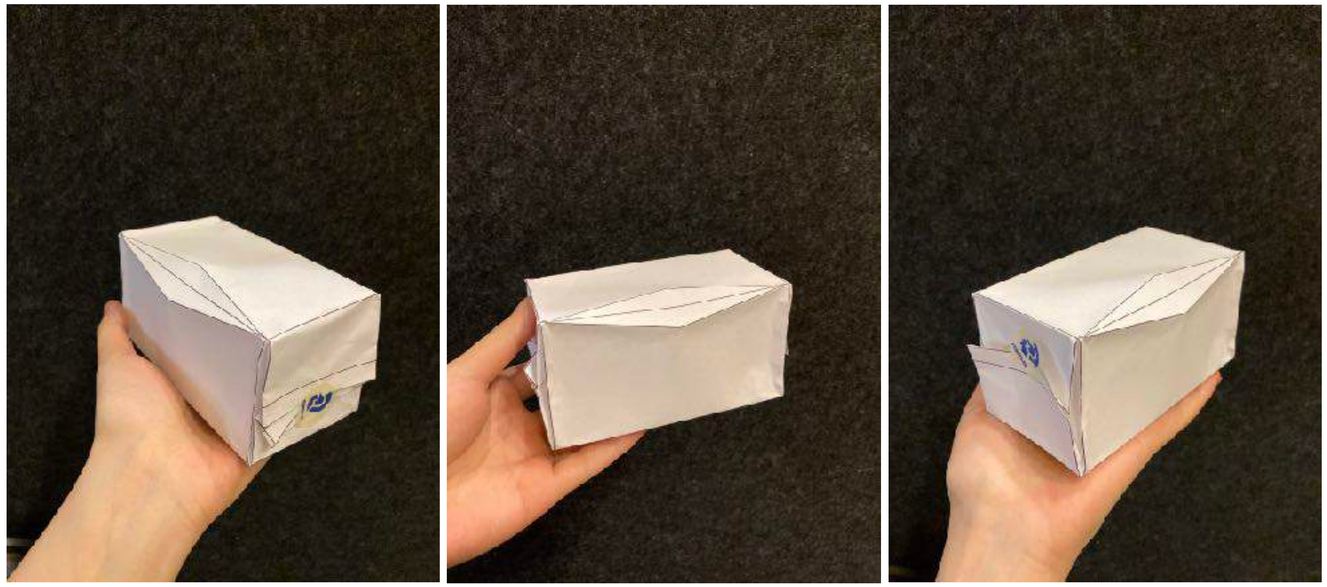
Ready to eat

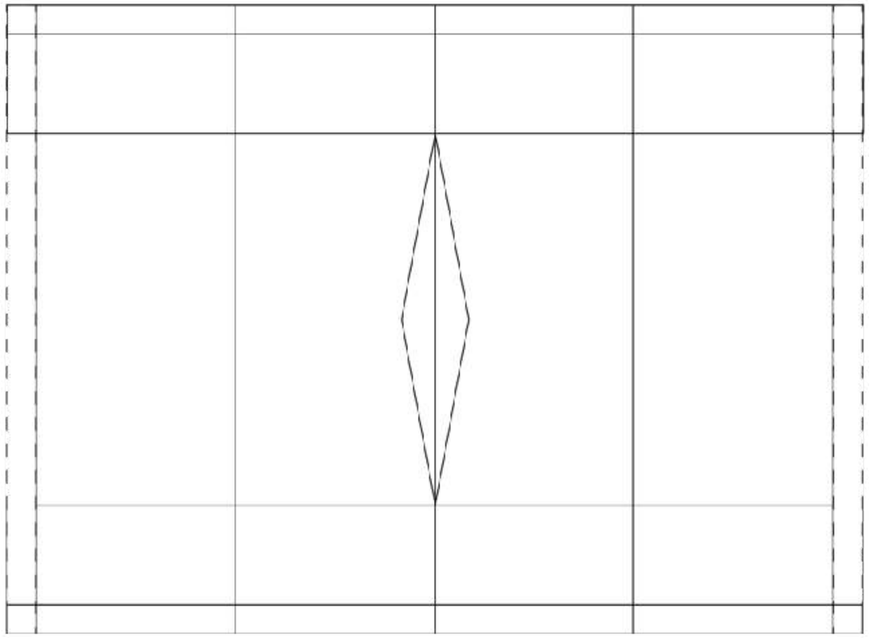




what's the possibilities of different size of curves?

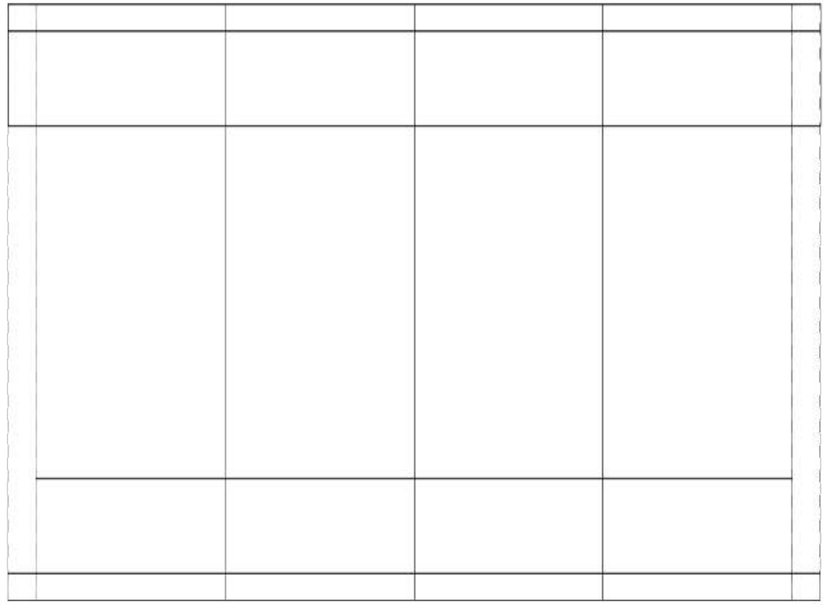
Ready to eat





change the size of the diamond?

Ready to eat



if the top needs to stand then the dialine need to have some curve

Chisonis' Story

ABOUT ME

Hi, my name is Chisonis, which means sadness.

lient.apps.us.bluescape.com/nyVb4eFCPRomS9Q8i66W?targetRect=%5B-18790%2C-10672%2C20109%2C10721%5D

https://en.wikipedia.org/wiki/Maize#Planting

https://www.un.org/africarenewal/magazine/special-edition-agriculture-2014/gendering-agriculture

ABOUT ME

I was born in a small southern village in Zambia, a south-central African country. It's one of the Least developed countries. In general terms, the northern part of the country receives more annual rainfall than the south.

I live with my two kids. My husband works in a copper mine.

We have a tiny land. I plant Maize(corn) in spring and harvest in autumn. (70% of women work in agriculture)

ABOUT ME

My family lives on agriculture, which contributes about 19% to GDP and employs three quarters of the population.

Small farms like ours produce 80% percent of the country's need.

- A tobacco field

https://www.trade.gov/country-commercial-guides/zambia-agriculture#:~:text=Agriculture%20contributes%20about%2019%20percent,as%20well%20as%20horticultural%20produce.

- 1/4 lost during harvest

- Traditional warehouses
- Limited space

- Serious problem

FOOD LOSS

However, we experience extreme rural poverty. Food loss has always been the biggest problem. It results in seasonal hunger and poverty.

Inefficient manual harvest/ inappropriate storage:

During harvest, about a quarter of crops is lost in the process, and the limited traditional warehouses don’t have enough space for all harvest.

https://diggers.news/lifestyle/2018/08/05/zambians-waste-more-food-than-other-sub-saharan-countries-hivos/

FOOD LOSS

Another type of food loss happens in daily life.

We do not have refrigerating equipment to keep food fresh, so I prepare meals in bulk before they getting bad, hope they last longer, or use traditional drying technique with fire to preserve them.

However, we can’t consume all of the food. They get rotten very quickly due to the temperature.

- No refrigerating equipment

1. rinse the vegetables for three times (get water from back of the house each time)

2. cut vegetables into small pieces

3. boil on charcoal

4. Eat

EXHAUSTING FOOD PREPARATION

At the noon, I return home, and cook Nshima and relish for my kids.

Preparing the food is very time consuming. Sometimes it takes me a whole afternoon, and I couldn't take care of the corns.

Eat Nshima

Nshima, made from corn flour, is the most essential food in our life.

Firstly, we roll the mushy mixture in our hands, until it becomes a little sphere. Secondly, we squeeze it, make it a bowl-shape, or a huge spoon. Thirdly, we put vegetables or meat on top of Nshima and eat.

I found using Nshima to scoop hot vegetables very time consuming.

FOOD THAT HELP ZAMBIANS

As a mother, a farmer, and a cook, I'm seeking for food that is **fast to prepare**, **easy to preserve**, and **nutritional** for kids.

It will save my time tremendously, so that I'll have **more time for farming** and earn more money for my family.

It will also **reduce food loss**. The longer preservation helps us save more food before harvest.

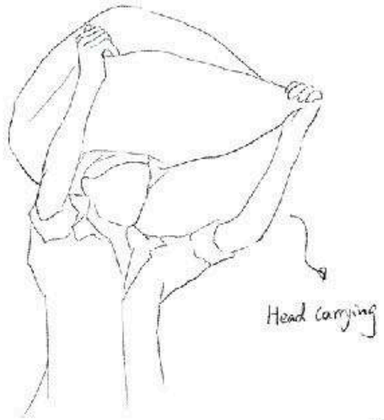
LOVE AND HOPE

Although we don’t have money, we still have each other. That’s why I named my kids as Daliso (love) and Chikondi (blessing.)

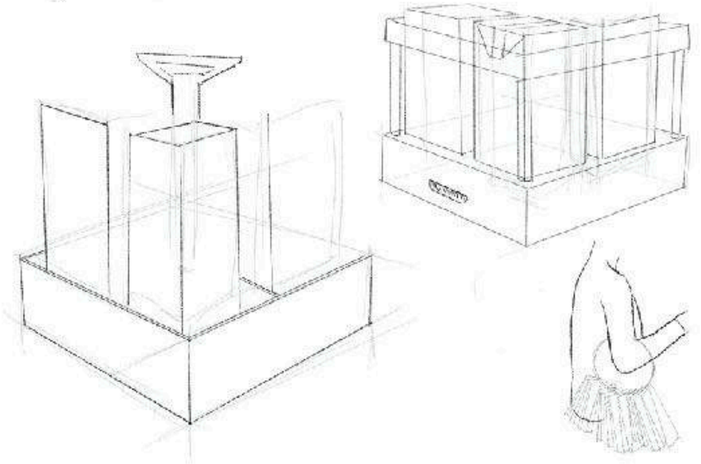
https://www.bbc.com/news/magazine-39351167

Easy transportation

Traditional: Need assistance from other people



- New design:
- Convenient for head carrying
- Flat bottom + handle
- Individual work



- A roll of things
- Cheaper

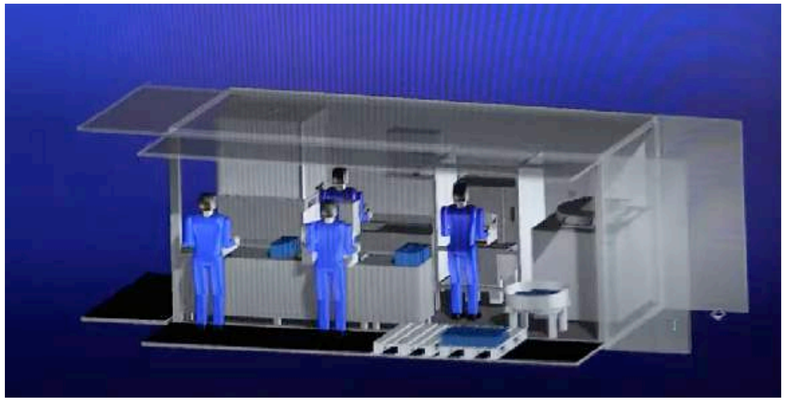
OUR SOLUTION

1. Packaging System that prevents food loss
2. Package for relish
3. Think universal: Half-cook meal in carton

https://www.hrw.org/report/2017/10/25/forced-leave/commercial-farming-and-displacement-zambia

SIG IN BANGELADESH

SIG buys food that farms can't sell out and will throw away.



SIG develops a packaging system that helps food loss.

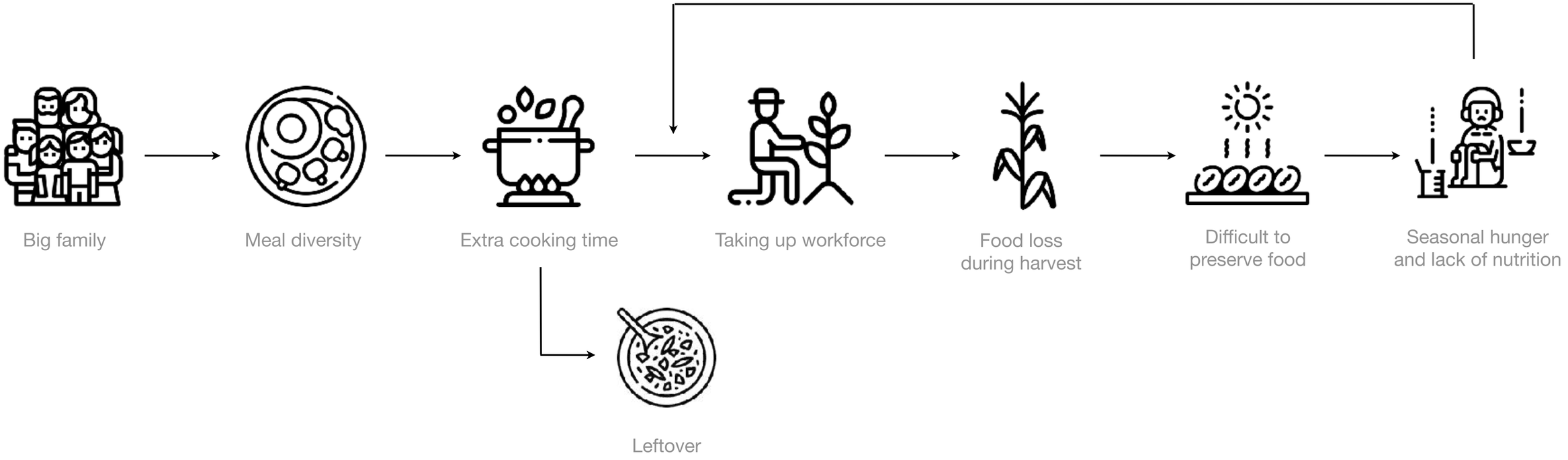
Workers fill the carton will fresh ingredients.

Workers sterilize the carton with this machine. The carton can stand for 6 months.

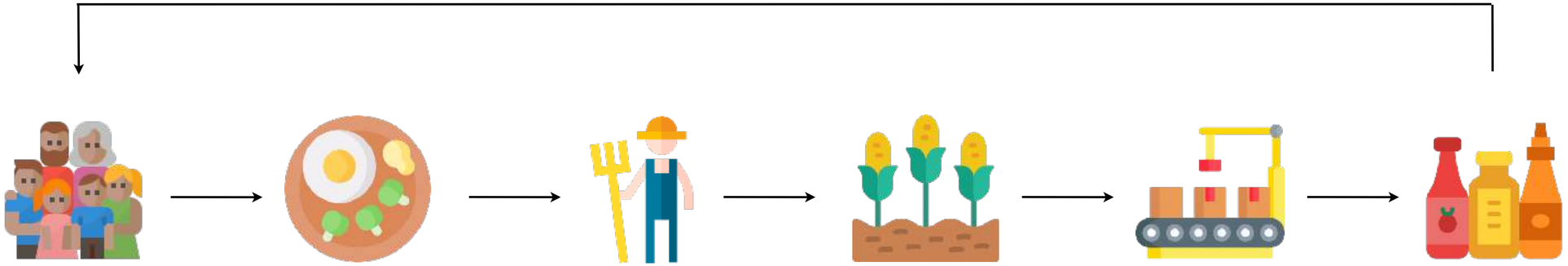
The cartons are donated to school of underprivileged children as lunch.

The carton package can be later used as education and entertainments for the kids.

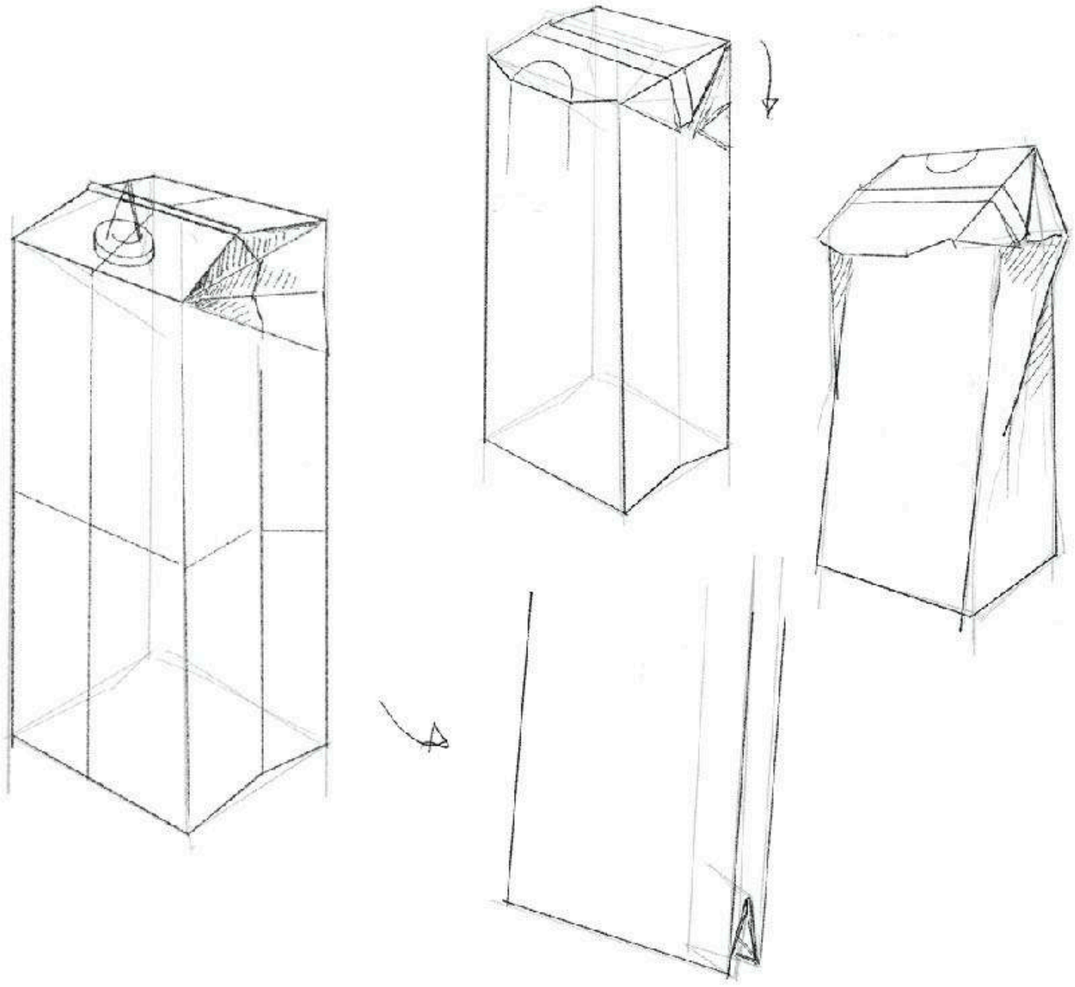
System


Big family
Meal diversity
Extra cooking time
Taking up workforce
Food loss during harvest
Difficult to preserve food
Seasonal hunger and lack of nutrition
Leftover

System

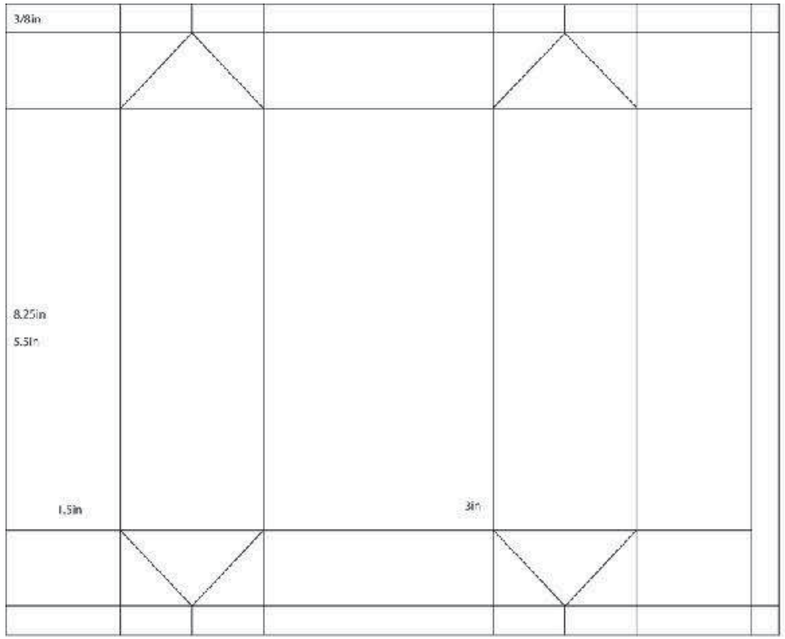

Serve local families
Efficient meal preparing process
Free labor for agricultural workforce
Get food that cannot be harvested
Process to fresh made relish
Packed fresh

Zambia Relish

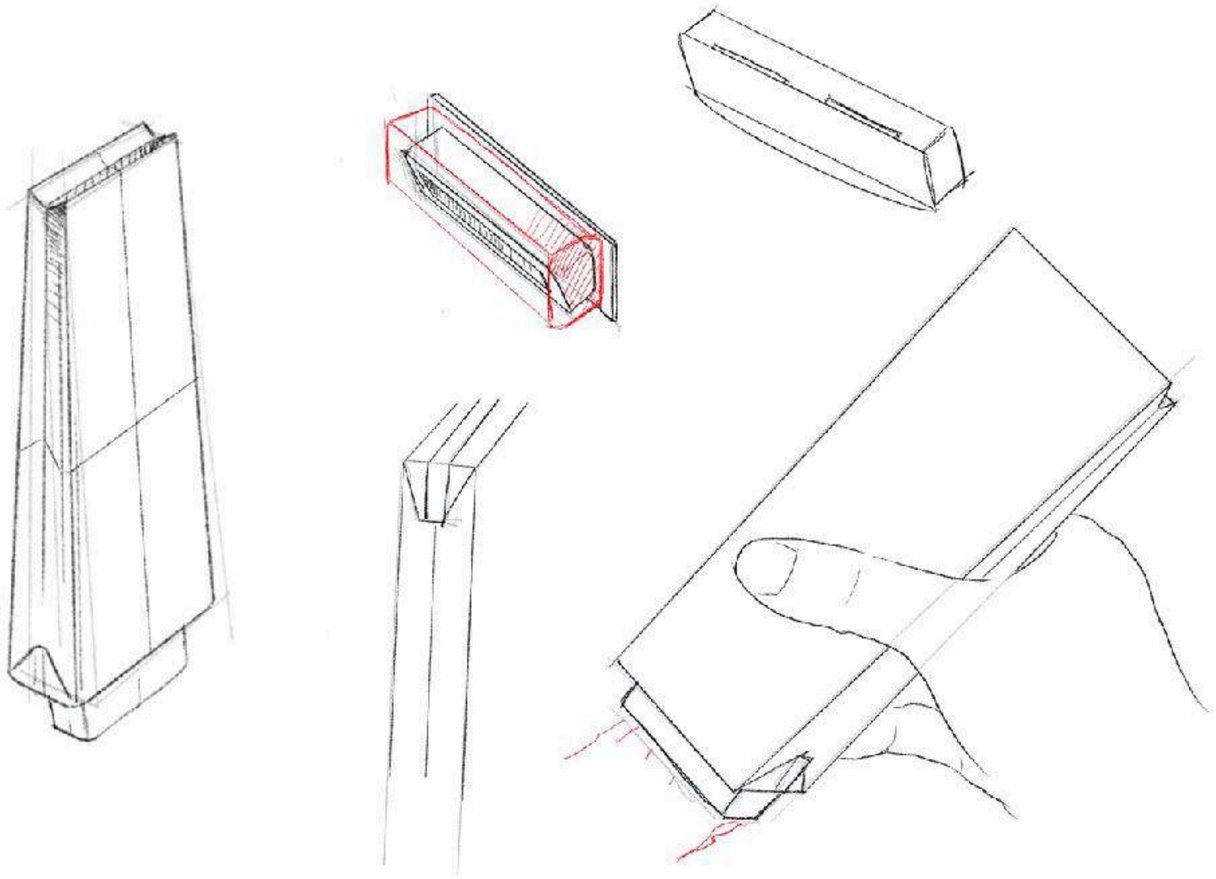


- Able to fold flat to consume all the contents

ZAMBIA

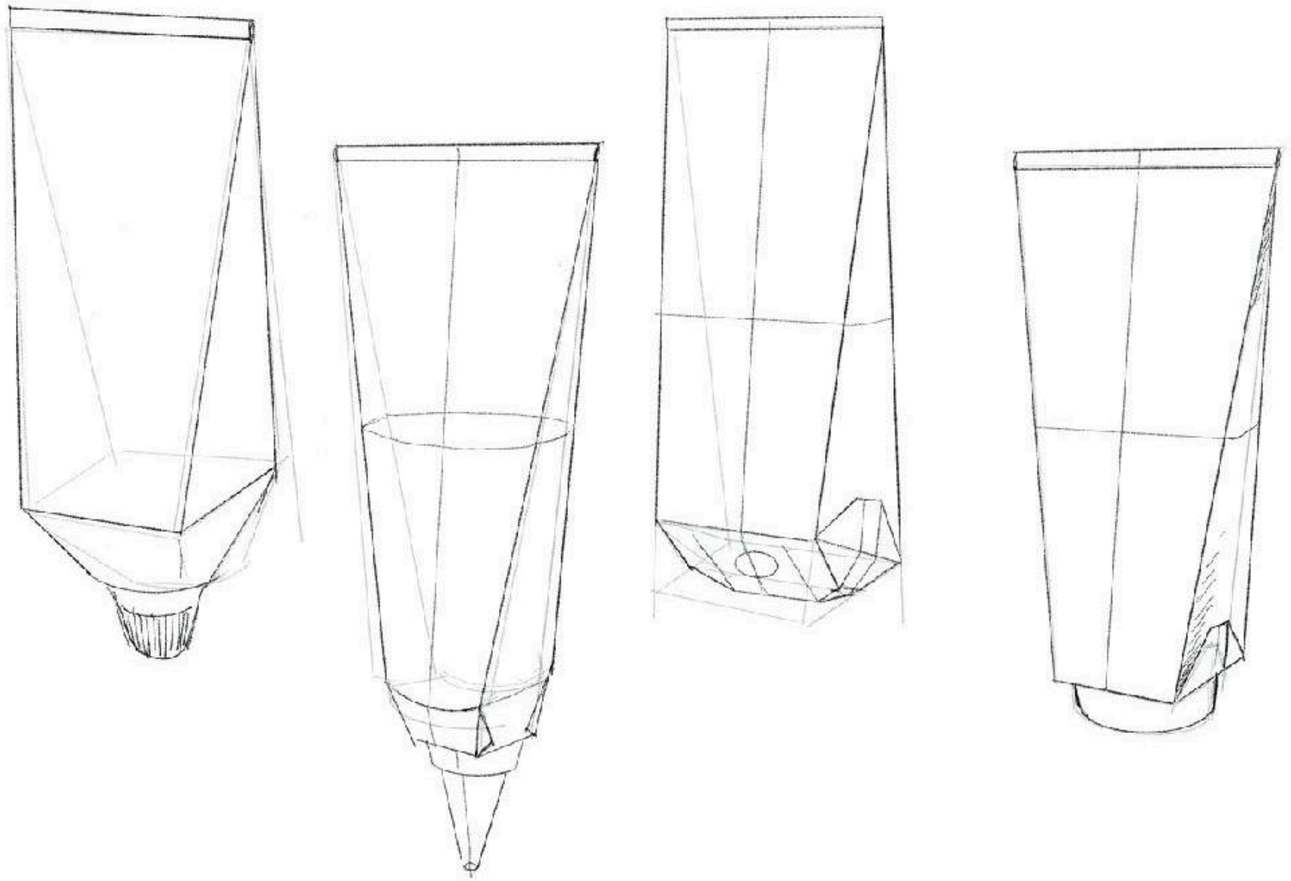


Zambia Relish

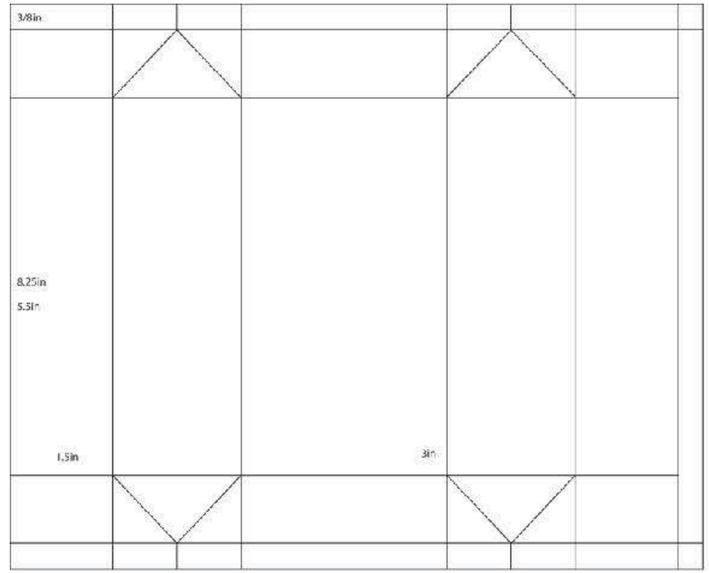


- Larger closure for more efficient use

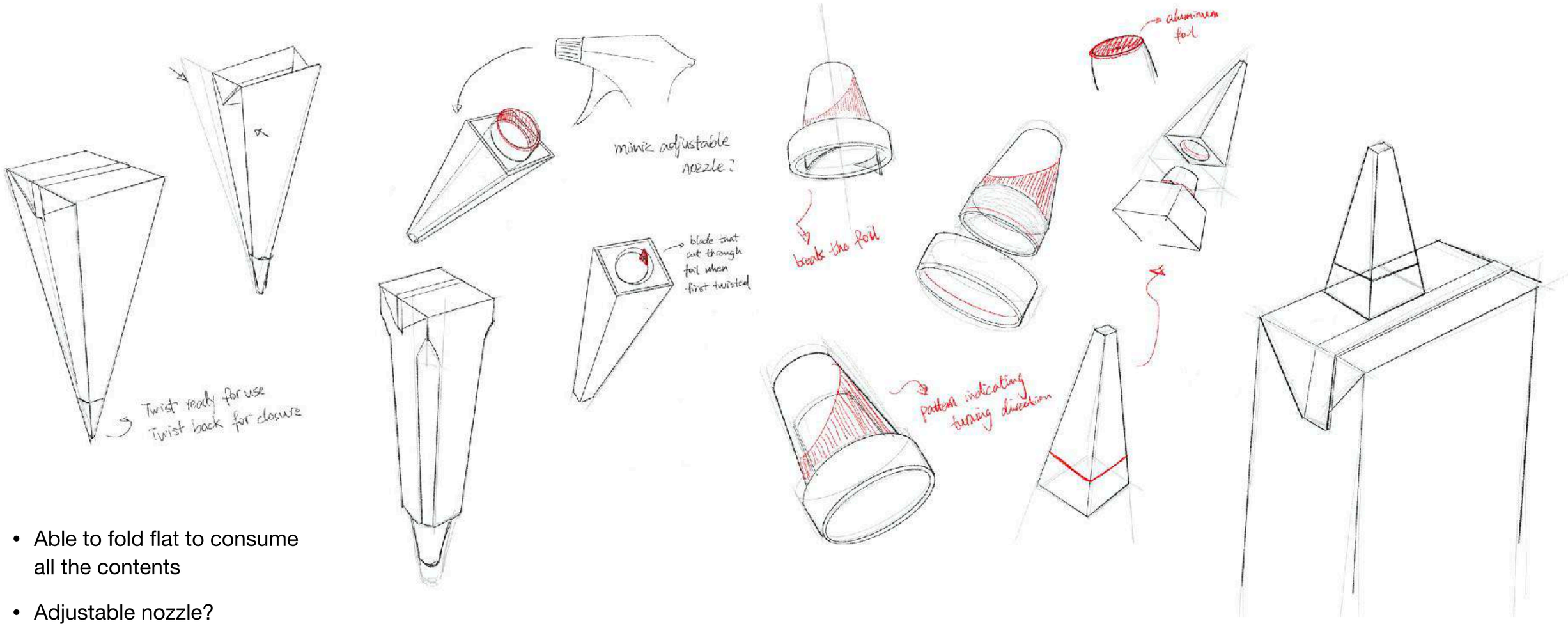
Zambia Relish



Zambia Relish

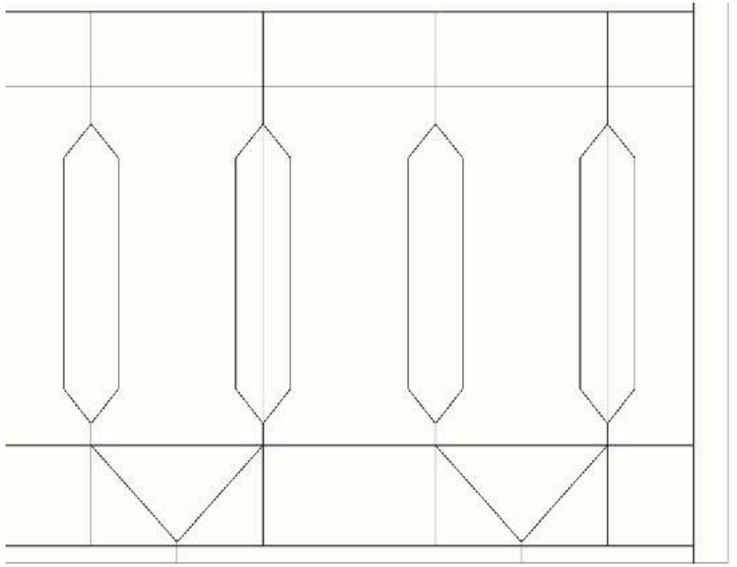


Zambia Relish

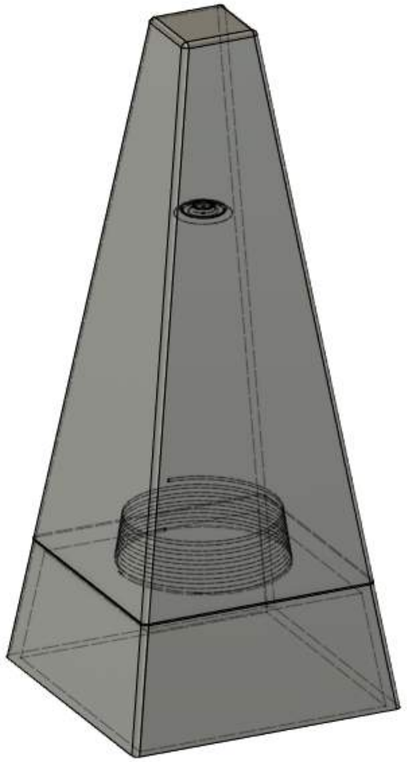


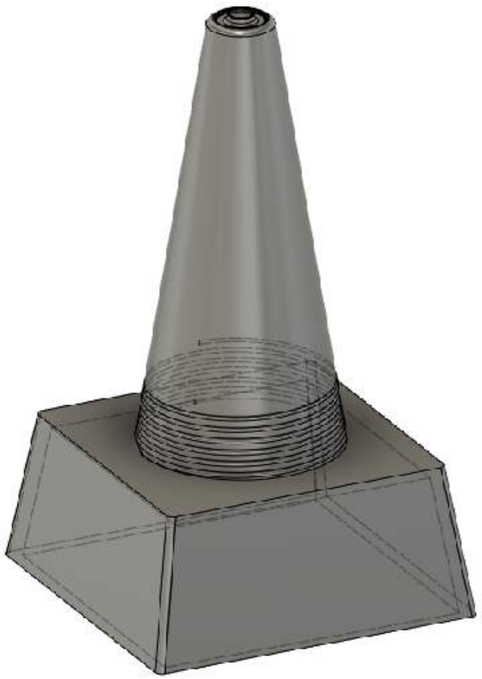
- Able to fold flat to consume all the contents
- Adjustable nozzle?

ZAMBIA

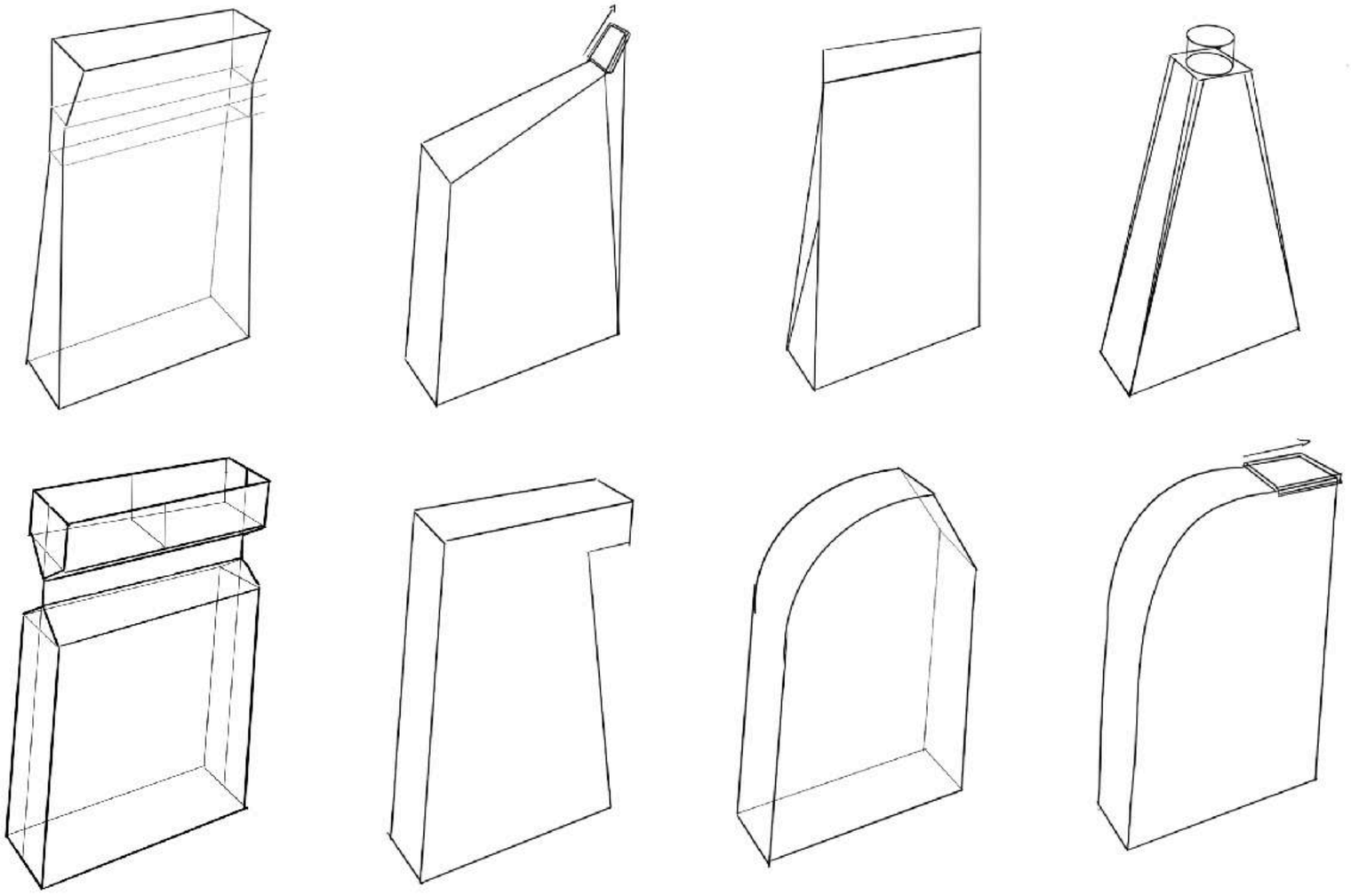


SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

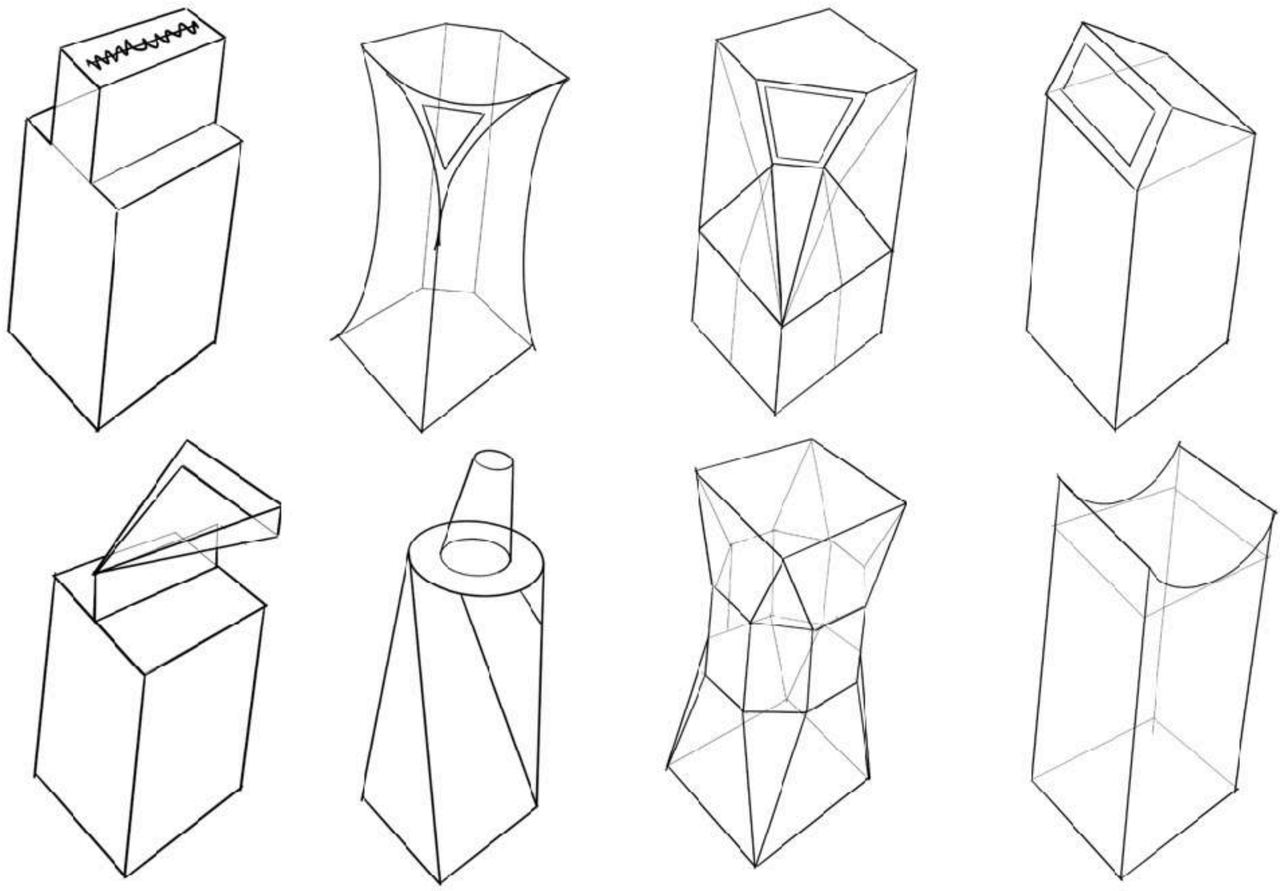


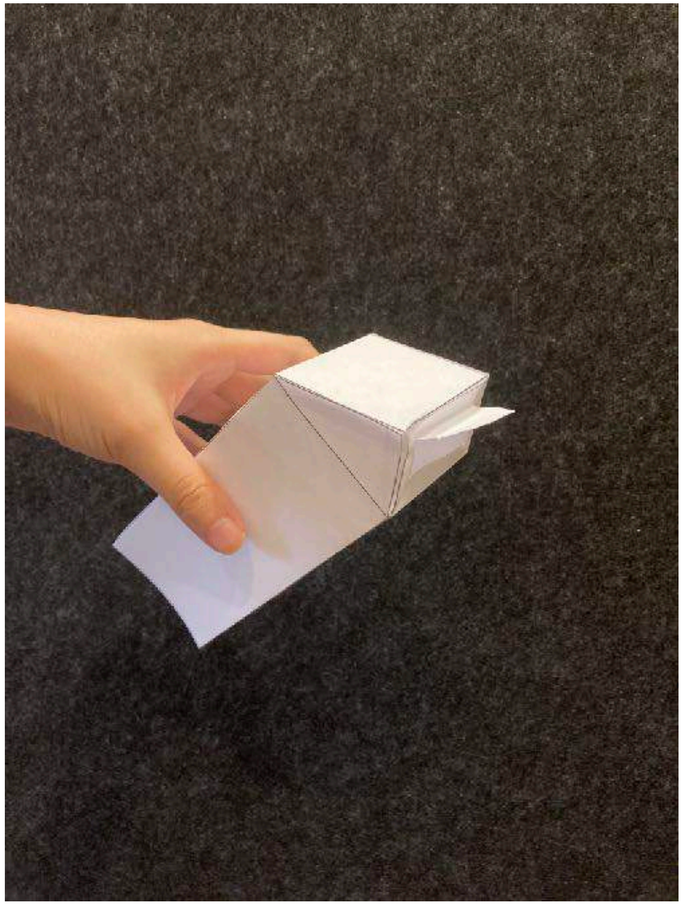


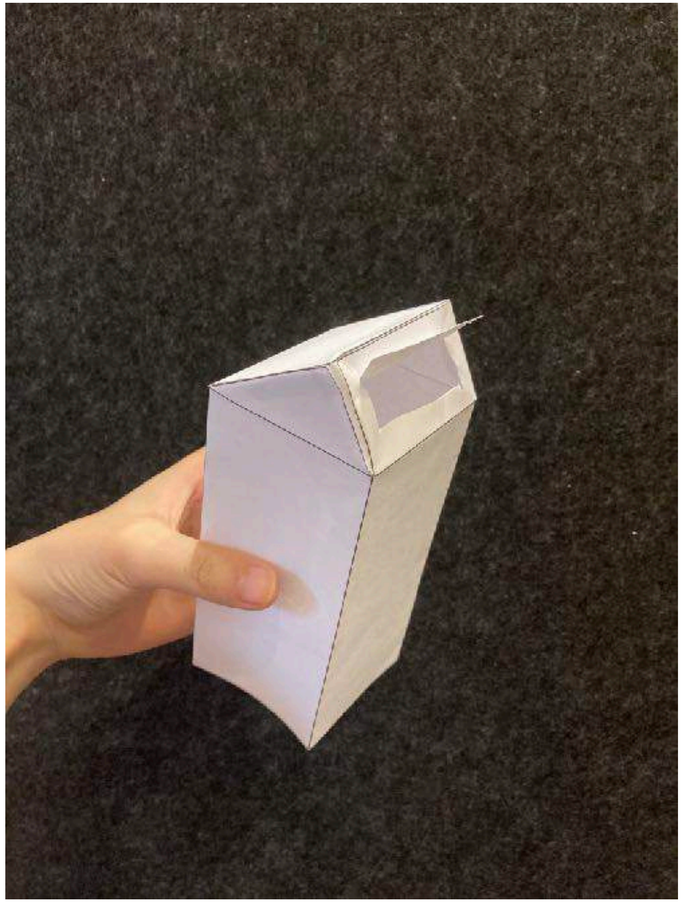
Half-cooked meal

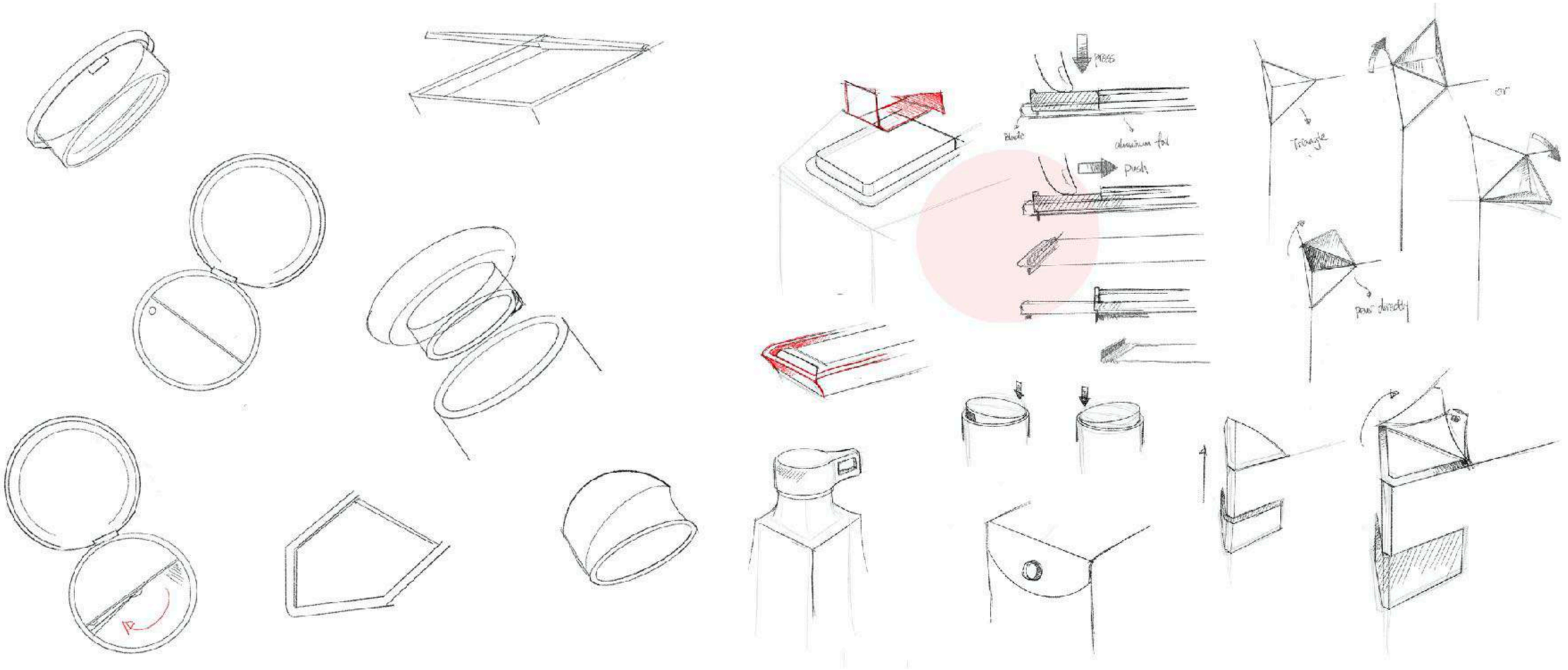


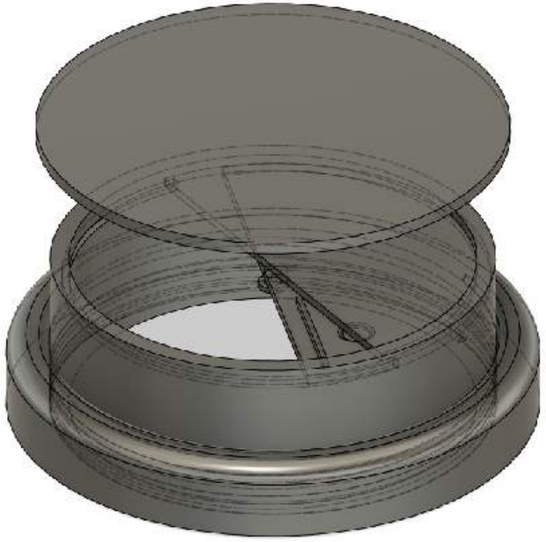
Half-cooked meal








press
Blade
aluminum foil
push
Triangle
or
paw directly



Thank you:)

Let’s help the world together

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

WEEK 8

FEEDING THE WORLD

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

ARTCENTER X SIG

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

FEEDING THE WORLD

We aim to design mid-range, meal-size packages that help people.

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

01

ASEPTIC CARTON WINS

02

EMOTIONAL PACKAGING

03

THE STORY OF ANDREW

04

THE STORY OF CHISONIS

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

01

ASPECTIC CARTON WINS

Aseptic carton’s success will continue
in food industry.

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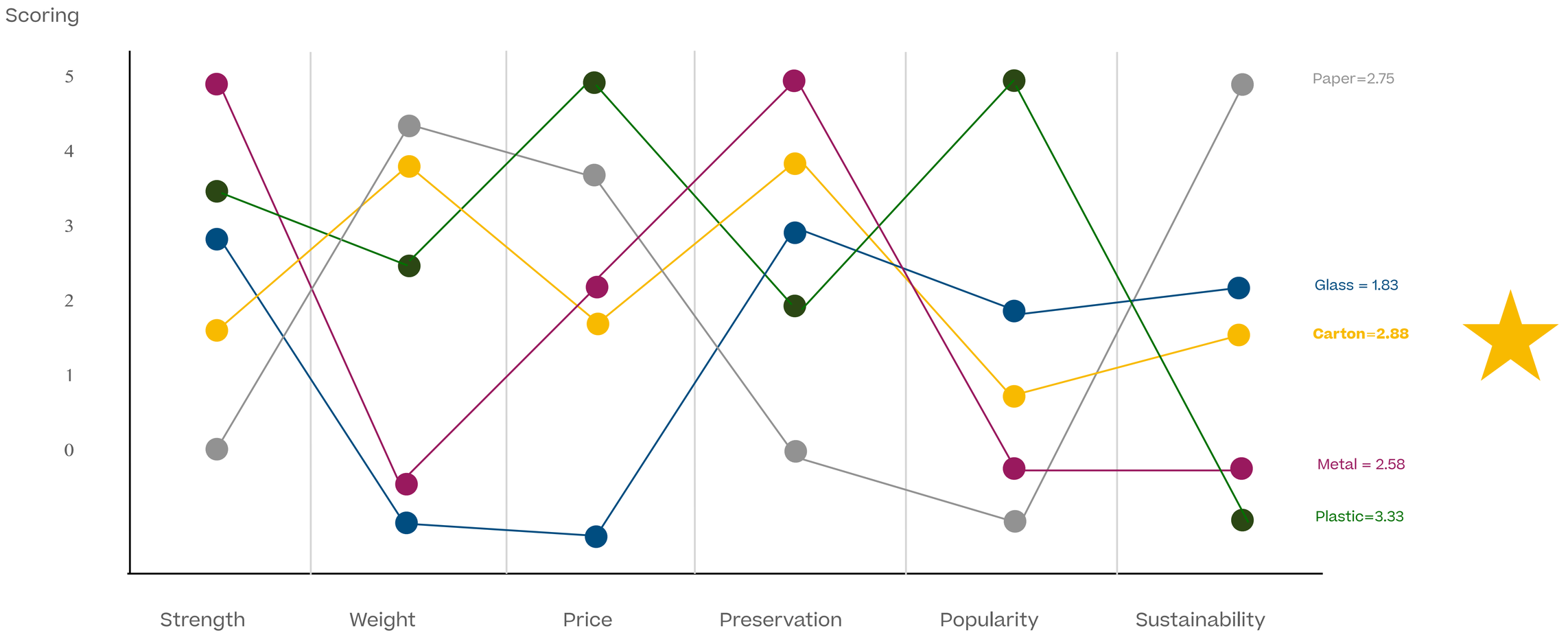
LOVE life
1 of your 5 a day
= per ½ pack
Waitrose
Smooth and fragrant
Italian passata with chopped basil
Per 100g
Energy
113kJ
28kcal
Per ½ pack
Energy
297kJ
70kcal
4%
LOVE life
1 of your 5 a day
= per ½ pack
Waitrose
Rich and savoury
Italian passata with onion & garlic

Outstanding Performance



Combisafe Makes Cartoned Food Possible

- Chunky food can be put in carton
- Ultrasonic sealing and complete sterilization
- New filling system
- Precise 2-stage filling process

https://www.sig.biz/en/packaging/food-packaging/combisafe-details

Outstanding Performance

Combisafe VS Glass

- Light weight, save up to 93% packaging weight
- Fewer emission, sustainable
- Easy and cheap to transport

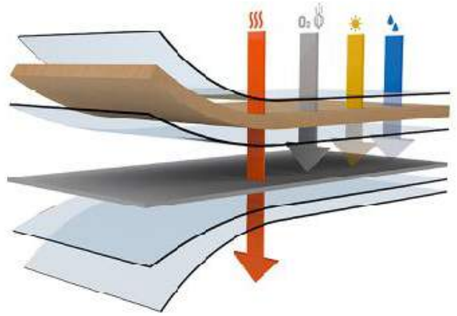
Combisafe VS Metal Can

- Easy to open
- 130% better performance in space utilization
- Precise measurement of ingredients
- Much larger printable surface
- Eye catching display

https://www.sig.biz/en/packaging/food-packaging/combisafe-details

https://foodnewsinternational.com/2014/02/04/europe-sig-combiblocs-carton-pack-combisafe-offers-fresh-look-for-canned-products/

Heat & Go: Microwavable Aseptic Carton



- Increasing worldly demand to hot drinks
- A high-barrier alternative to the aluminum film inside
- Heated up to 60°C

Research Takeaway

- Aseptic carton is capable of replacing metal can and glass in food packaging industry.
- Aseptic cartons can be directly opened and heated.
- SIG’s alternative to aluminum allows a much safer way of eating and drinking.

Our designs are based on SIG’s lastest technologies applied in Combisafe and Heat&Go.

02

EMOTIONAL PACKAGING

We design what evoke emotions which result in positive user experiences.

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Color Psychology

Universal meaning

Chromotherapy

Red and yellow: healing, appetizing, aggressive

Orange: vital, energetic , happy, attention getting

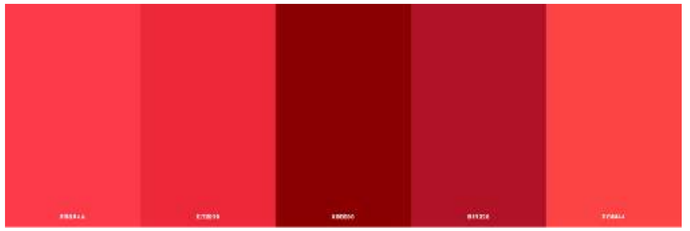
Blue: calm, serene, stabile, least appetizing, sad

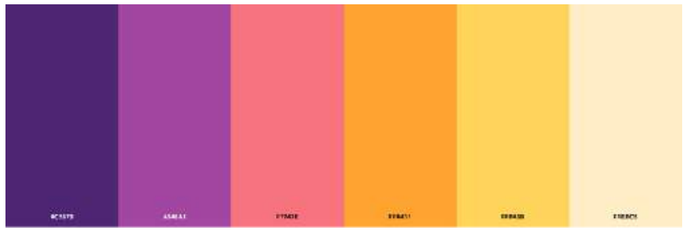
Green: natural, refreshing, tranquil, relieve stress

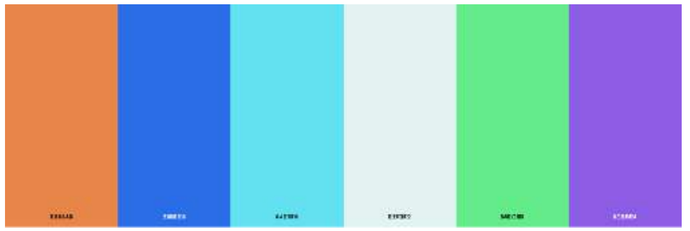
Pink: calming, versatile, joyful, subdue appetite

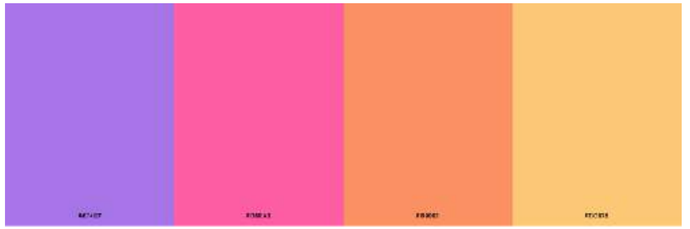
SIG: print cartons in up to six colors with a high-quality gravure printing system

Colors that increase energy level + encourage eating









https://www.verywellmind.com/color-psychology-2795824 https://www.sig.biz/en/packaging/overview

Gravure Printing

Offset printing, flexographic printing, gravure printing

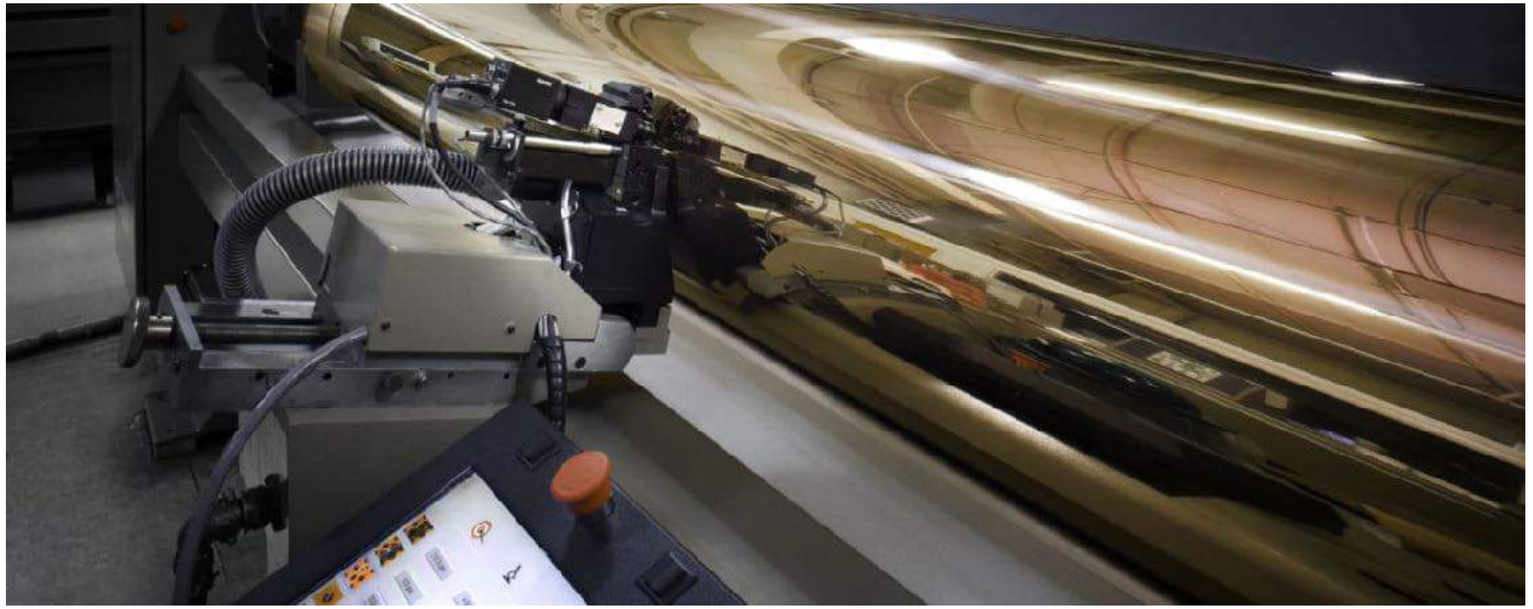
Advantages:

most stable and optimal

Suited for large batch

Full, 3 dimensional ink

strong texture, rich layers, ink dries faster



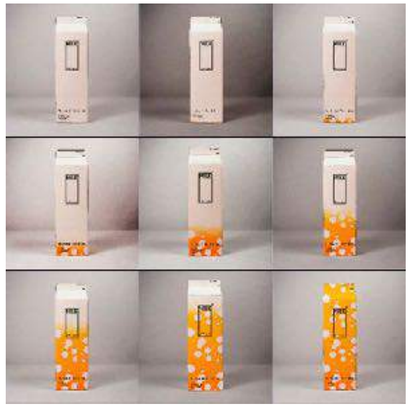
https://www.offsetprintingtechnology.com/2019/3-commonly-used-printing-technology-for-carton-packaging

Material and Textures

Paper

Cloth

Sustainable options



Intelligent packaging

Local materials

https://thedieline.com/blog/2011/9/22/hemp-4-haiti.html?

Sustainable Print Finishing

Foiling: eco-friendly, premium

Spot UV varnishes and coatings: no poisonous emission

Lamination: less than 5% of the total weight

Soy and vegetable-based inks

https://www.brightsea.co.uk/what-vegetable-based-inks-blog/ https://www.webfx.com/blog/web-design/print-finishes/

Unique Visual Communications

Combination of vibrant colors, typography and fun illustrations

03

THE STORY OF ANDREW

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Hi, I’m Andrew!
I have been volunteered in American National Red Cross for 5 years.

RED CROSS AND ME

The American Red Cross is a humanitarian organization that provides emergency assistance, disaster relief, and disaster preparedness education,

We helped a lot of people during hurricane, winter storm, earthquake, home fire and wild fire. I'm very proud of Red Cross.

FOOD DISTRIBUTION IN DISASTER RELIEF

Red Cross gather supplies in the warehouse.

Food truck transport fresh food to local shelters.

Red Cross airdrops food kit, including dried food, beans, oil, flours, etc. to war areas.

Red Cross works quickly with local communities to cook hot meals for thousands of people.

Red Cross distributes food in lunchboxes in its vehicles.

People cook at home.

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Thousands of people gather in the shelter.

Preparing food and cooking in huge pots for thousands of people can be very time-consuming.

Volunteers then distribute mushy food evenly in polystyrene lunch boxes.

Besides hot meals, people also need emotional care.

Disaster victims are physically and mentally weak.
They need to eat hot nutritious food immediately.
They also need emotional care.

Volunteers should cook
much more efficiently.

OUR SOLUTION

Ready to eat

- Carton works as container
- Microwavable
- Save huge time of food preparation
- Very Convenient to distribute and eat

Airdrop

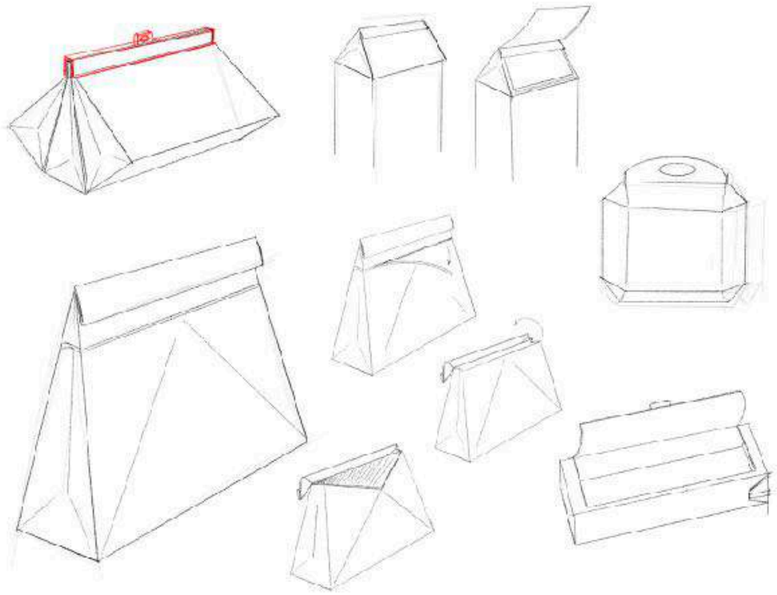
- Multipack/ code for tracking
- Nutrition
- Long preservation

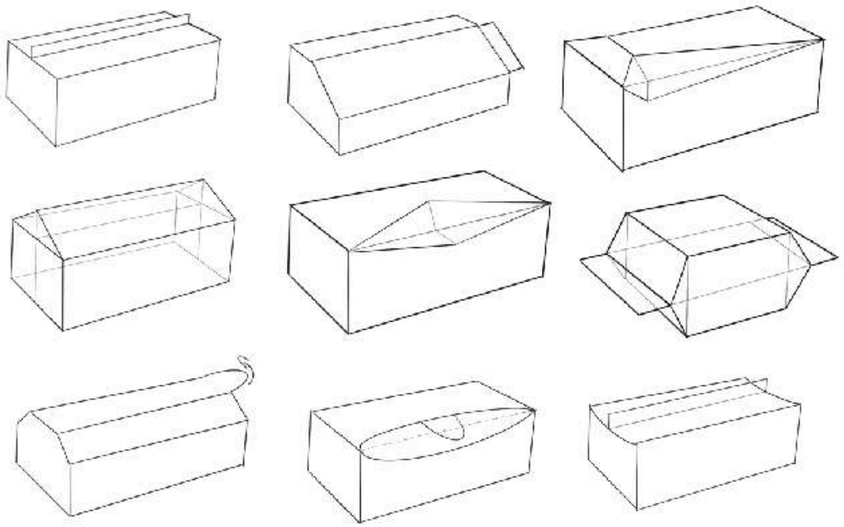
What goes inside

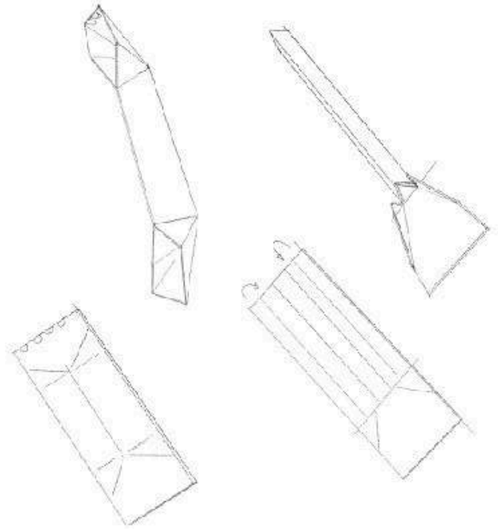
Emergency Meal

- beans
- mash potatoes (creamy food)
- soups

Ideations of Ready to Eat







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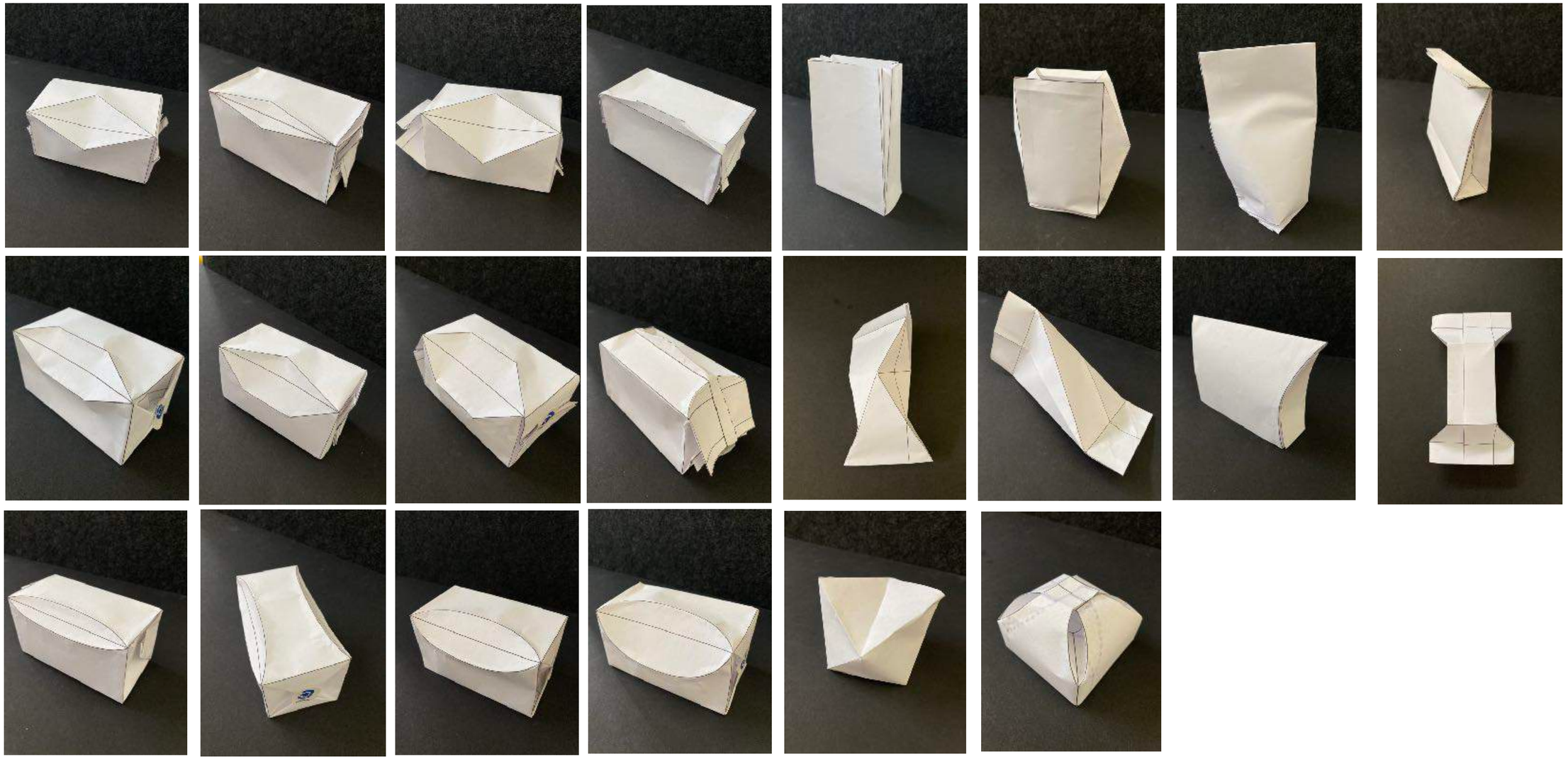
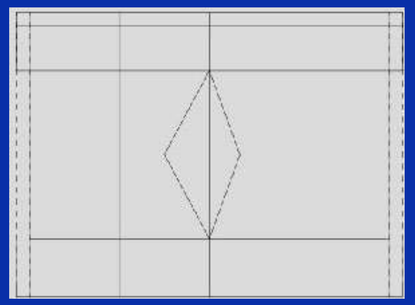
Prototypes of Ready to Eat

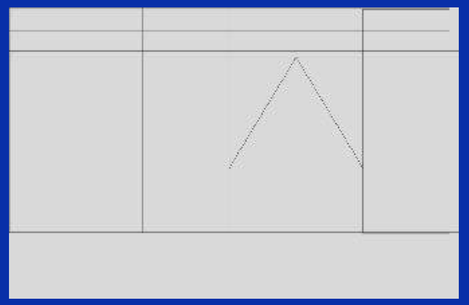


Models of Ready to Eat

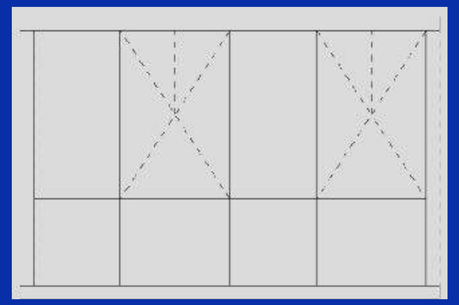
“DUCK”



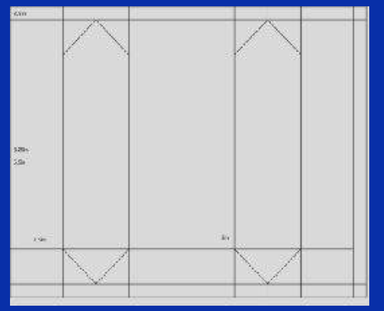
“DROPLET”



“WING”



“TISSUE BOX”



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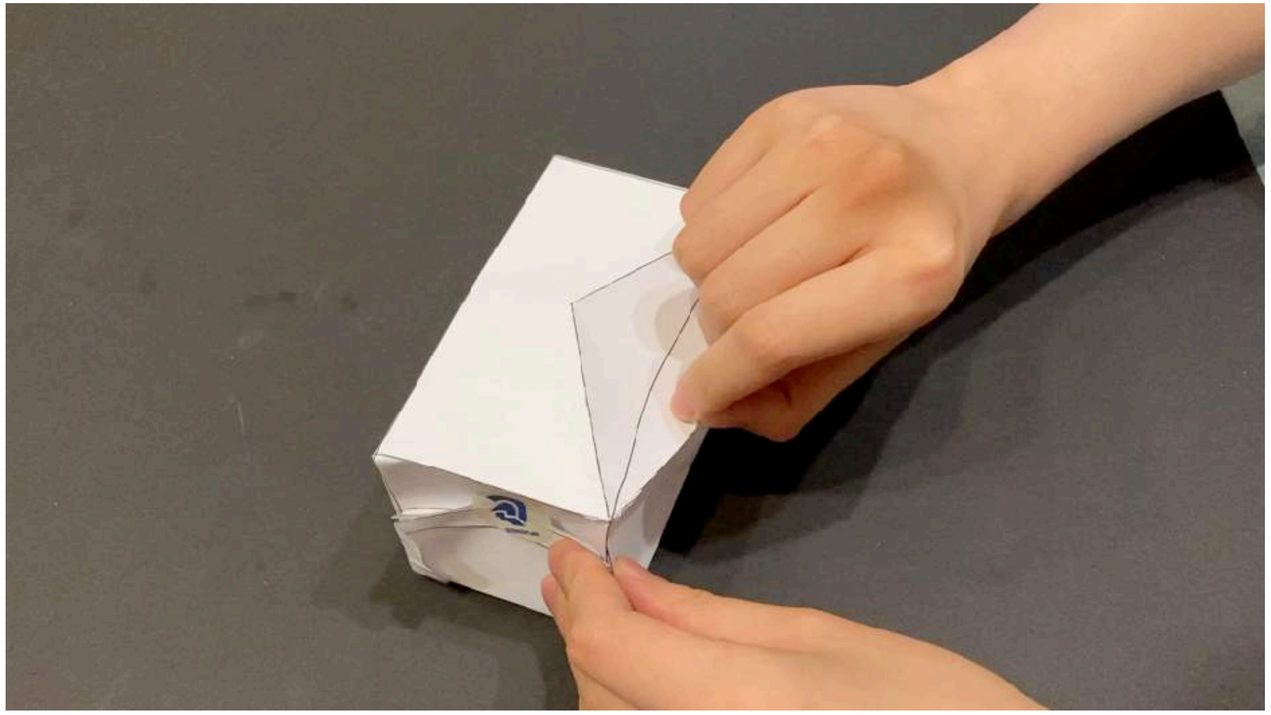
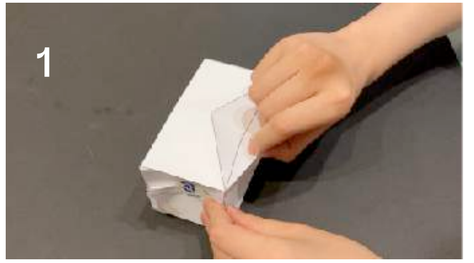
“DUCK”





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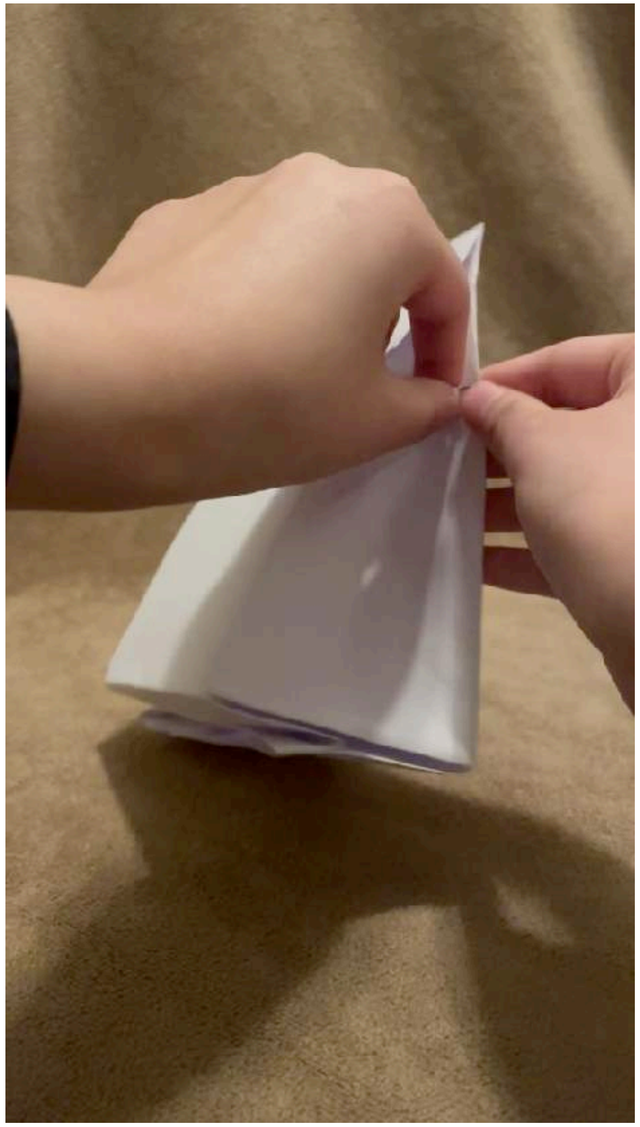
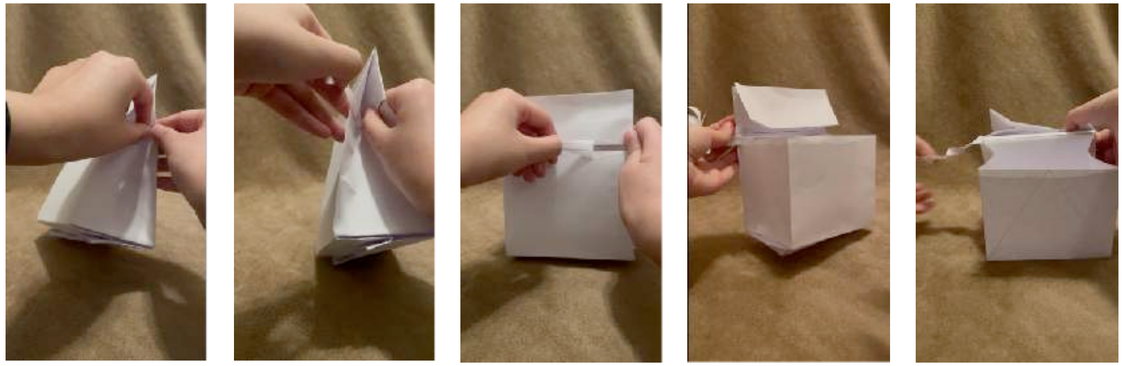
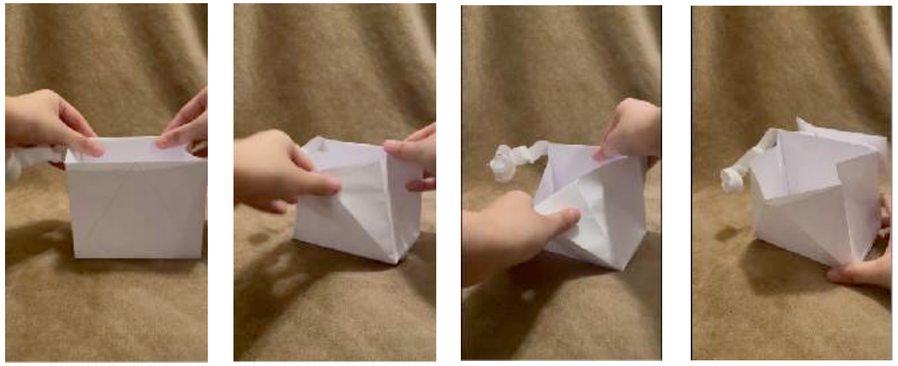
“DROPLET”

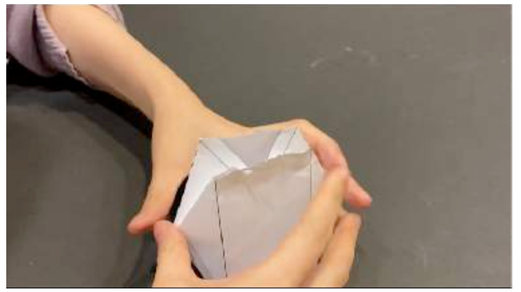




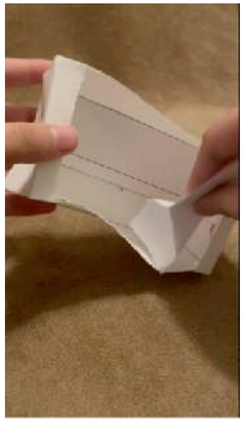


SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

“WING”

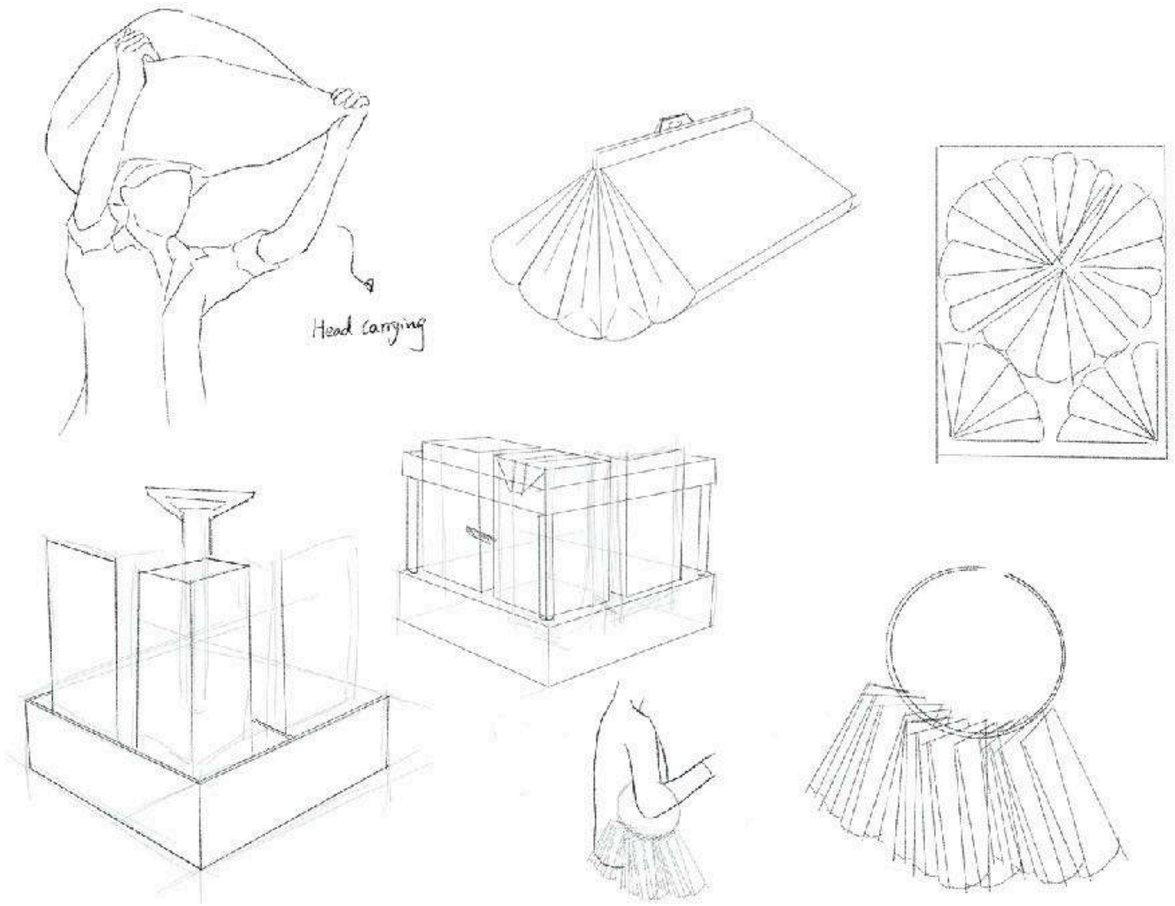


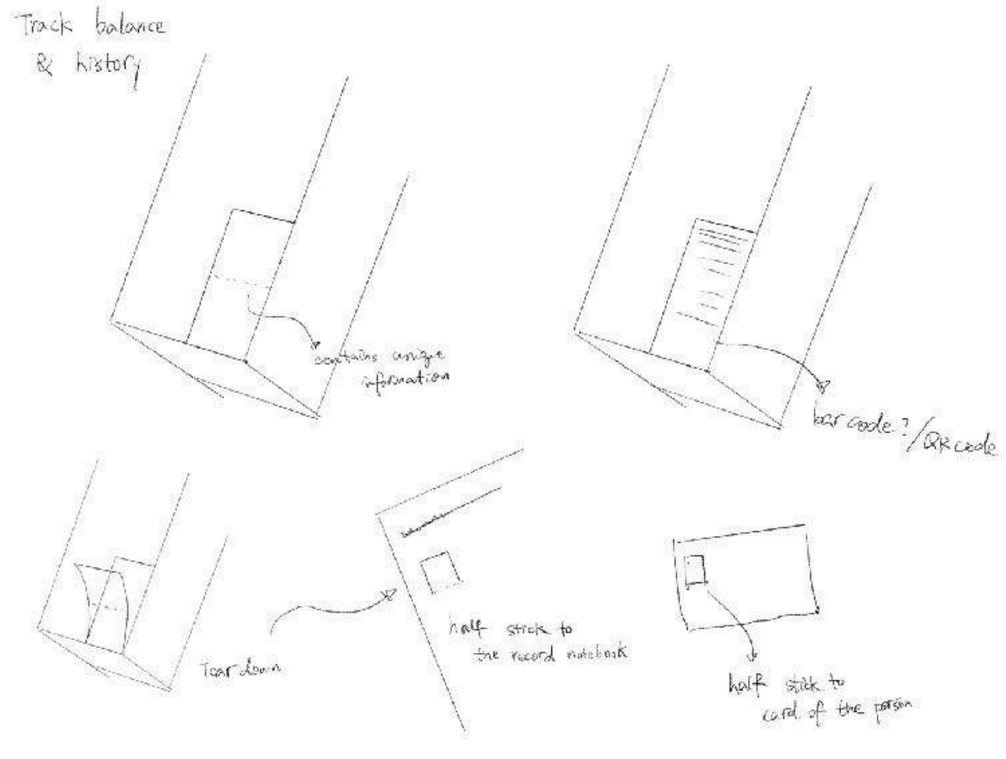
“TISSUE BOX”



GENEVE
ICRC
RICE
25KG
NOT FOR SALE
NIGERIAN
RED CROSS

Ideations of transporting and tracking





04

THE STORY OF CHISONIS

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Hi, I’m Chisonis.
My name stands for “sadness.”

ABOUT ME

- born in Zambia
- one of the Least developed countries
- live with two kids
- husband works in a copper mine
- plant corn (70% of women work in agriculture)

- My family lives on agriculture
- Agriculture contributes about 19% to GDP
- Employ 70% of the population
- Small farms produce 80% of the country’s need

https://diggers.news/lifestyle/2018/08/05/zambians-waste-more-food-than-other-sub-saharan-countries-hivos/

EXTREME POVERTY AND FOOD LOSS

- Inefficient manual harvest, 1/4 lost
- inappropriate storage
- Food loss
- Seasonal hunger and poverty

- No refrigerating equipment
- prepare meals in bulk before things getting bad
- Food deterioration and waste

EXHAUSTING FOOD PREPARATION

1. rinse the vegetables for three times (get water from back of the house each time)

2. cut vegetables into small pieces

3. boil on charcoal

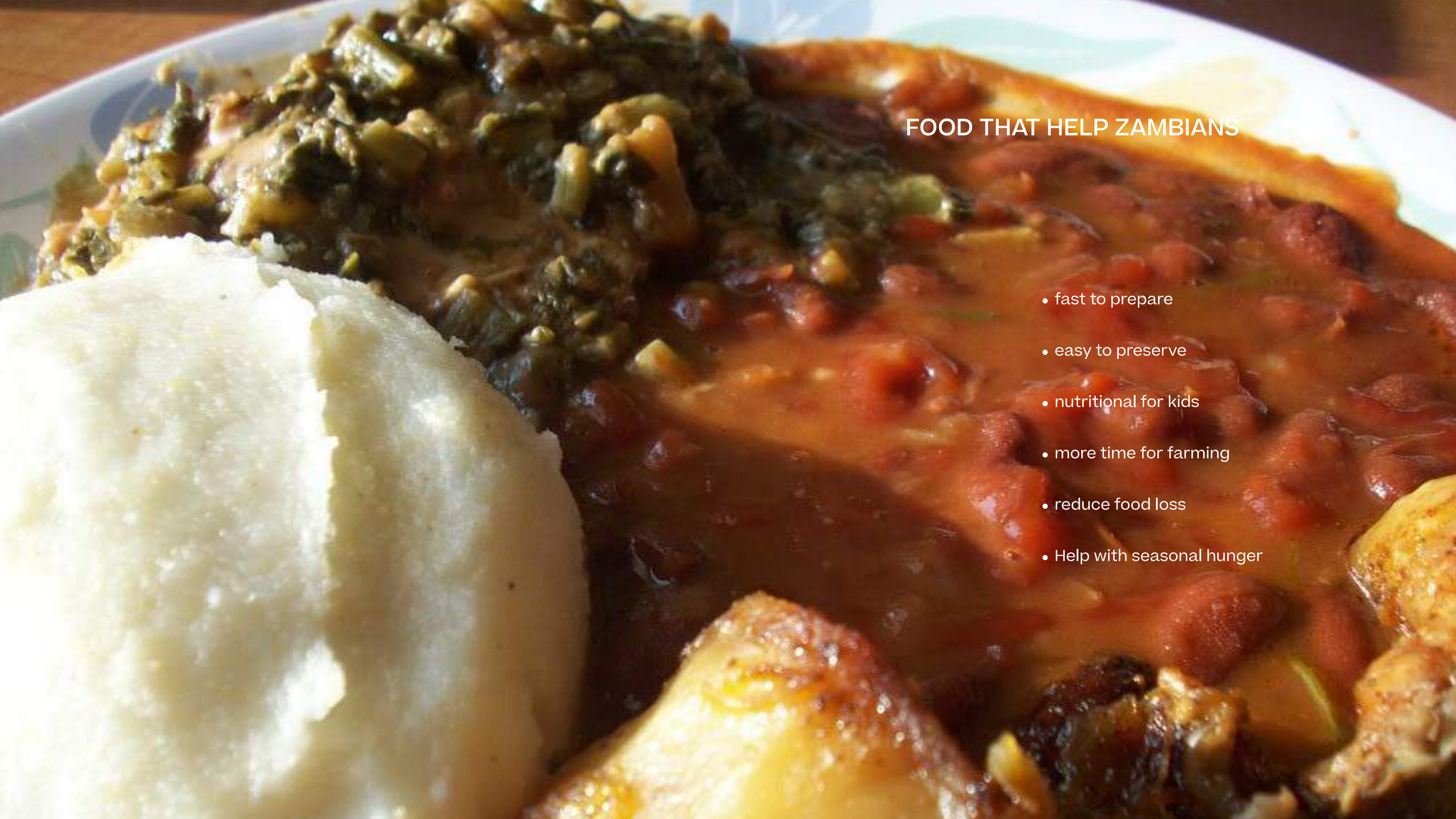
4. Eat

return home at noon

cook Nshima and relish

time-consuming preparation

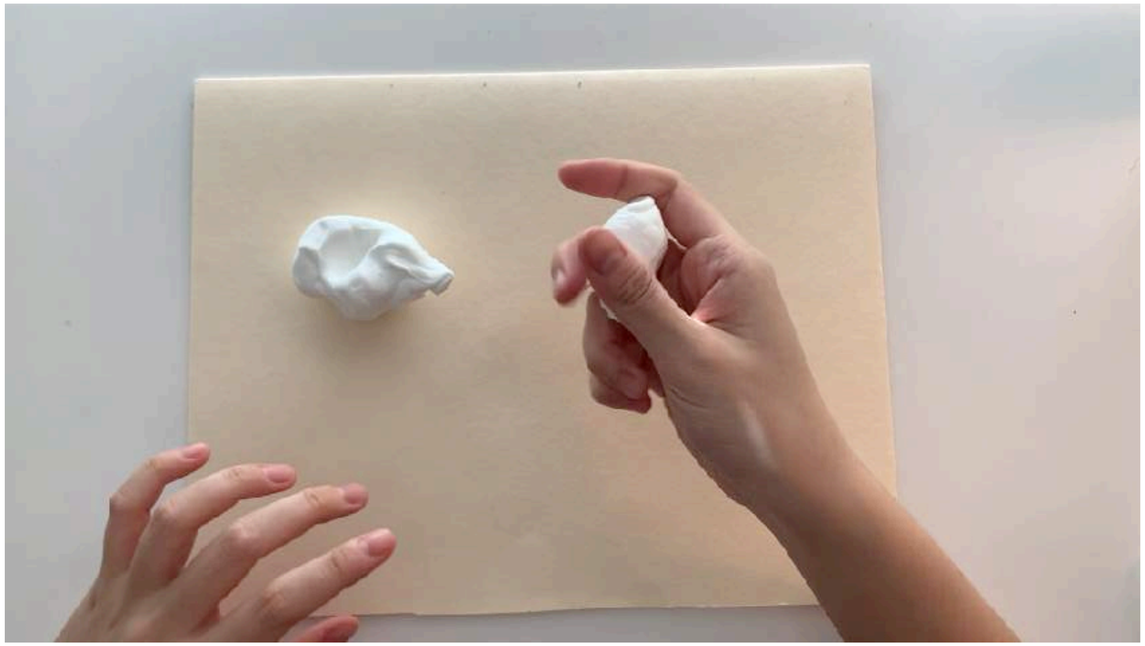
couldn’t take care of the corns



FOOD THAT HELP ZAMBIANS

- fast to prepare
- easy to preserve
- nutritional for kids
- more time for farming
- reduce food loss
- Help with seasonal hunger

Eating Nshima



LOVE AND HOPE

http://www.bbc.com/news/magazine-

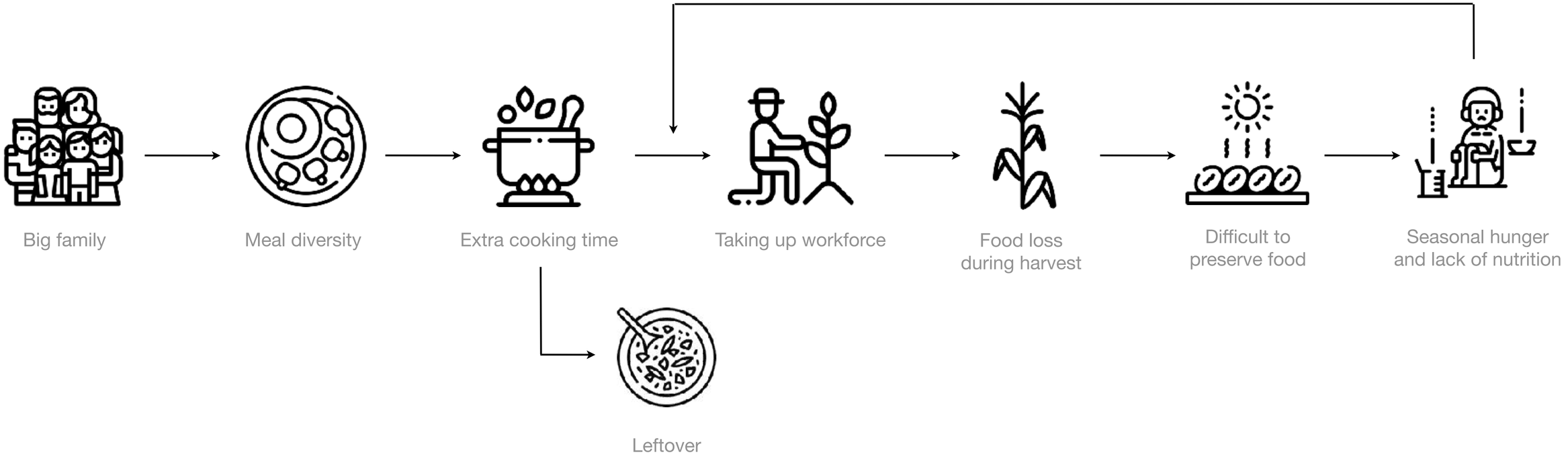
OUR SOLUTION

Think Universal: system and multiple products

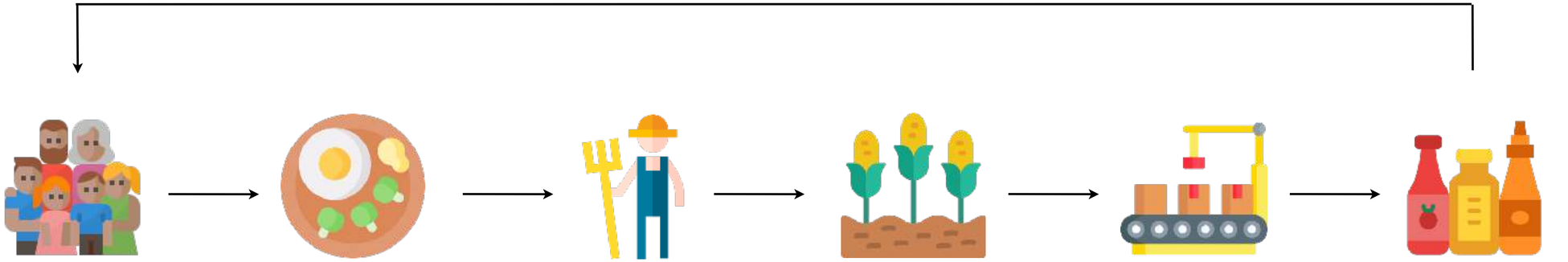
- Reduce food loss
- Designed for relish
- Creamy food / Chunky food

https://www.hrw.org/report/2017/10/25/forced-leave/commercial-farming-and-displacement-zambia

System


Big family
Meal diversity
Extra cooking time
Taking up workforce
Food loss during harvest
Difficult to preserve food
Seasonal hunger and lack of nutrition
Leftover

System



Stable food source

Fresh made nutritious food

Free the labor

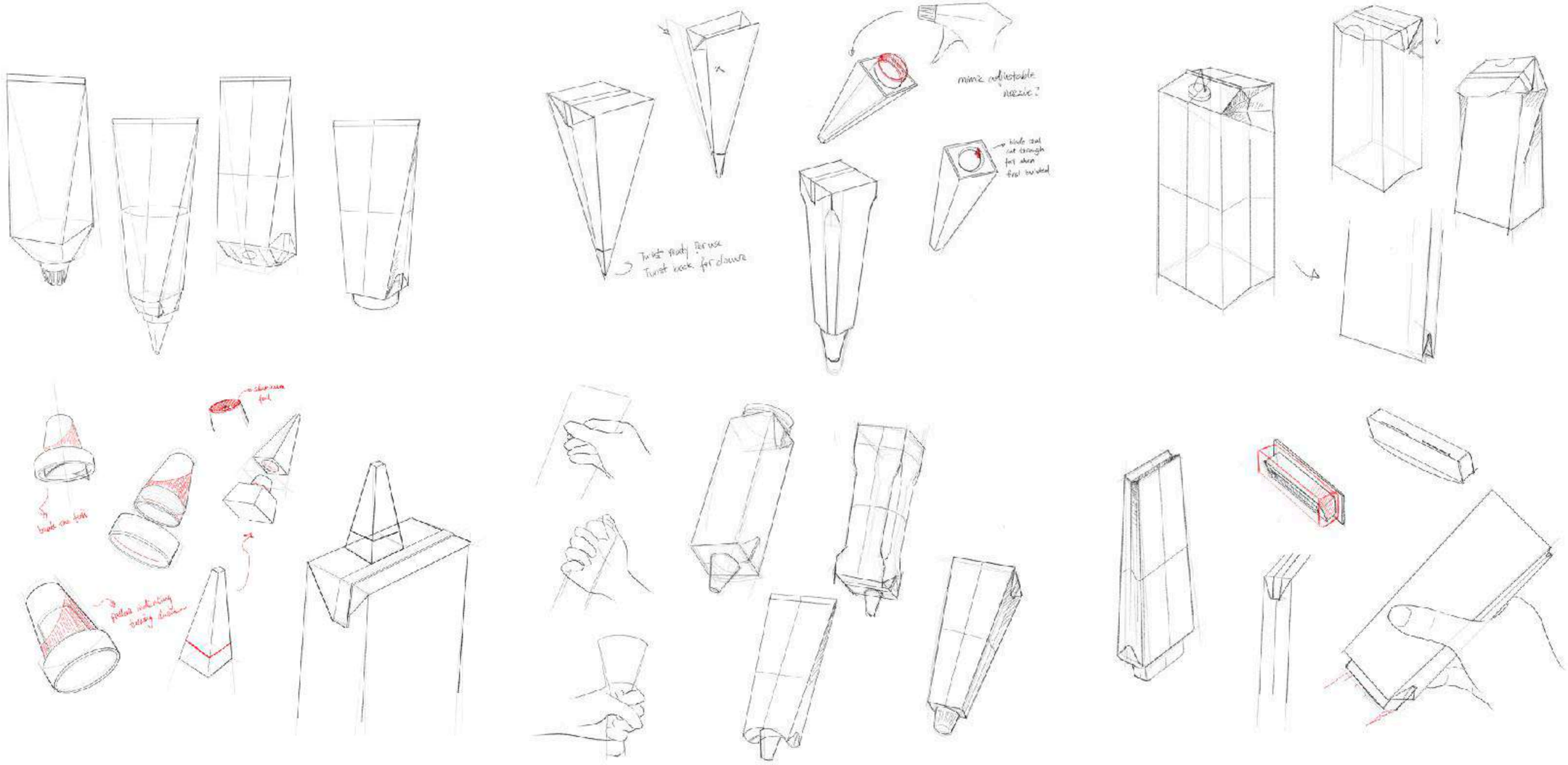
Reduce leftover

What goes inside

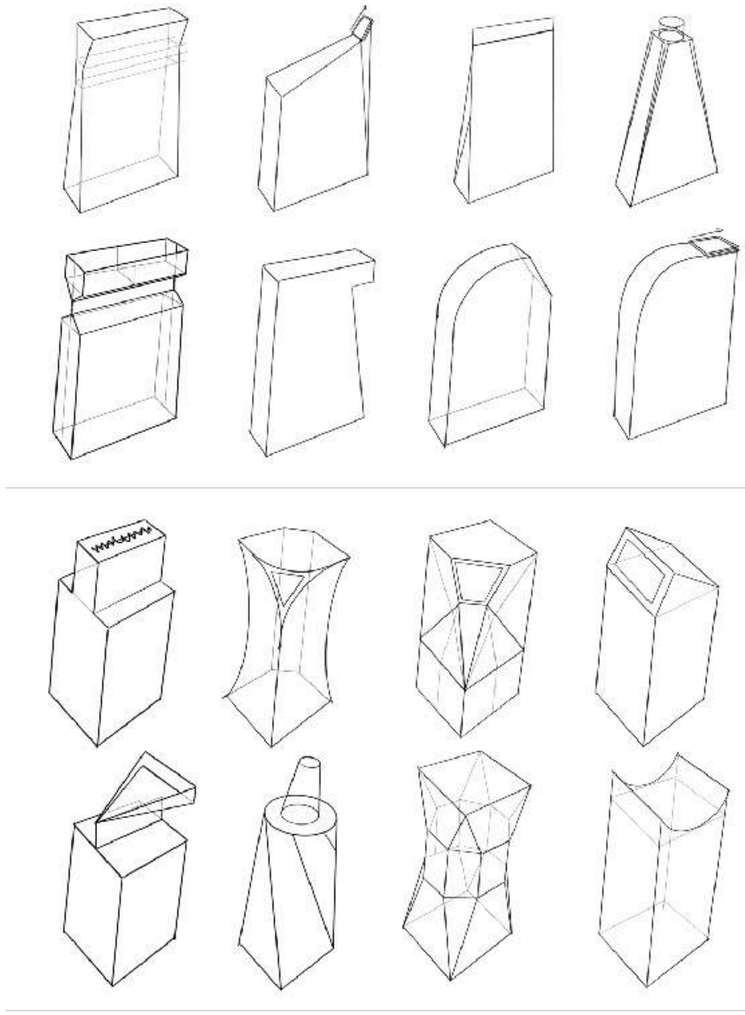
Relish (creamy / chunky)

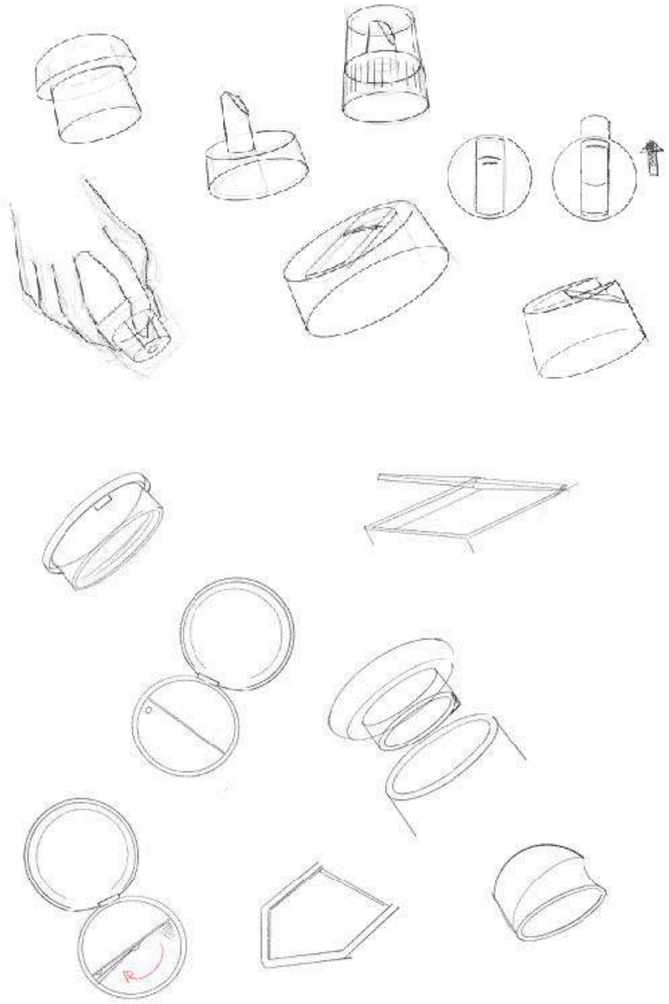
- beans
- vegetables
- Kyopolou (Кьопоолу), made from red bell peppers, eggplant and garlic

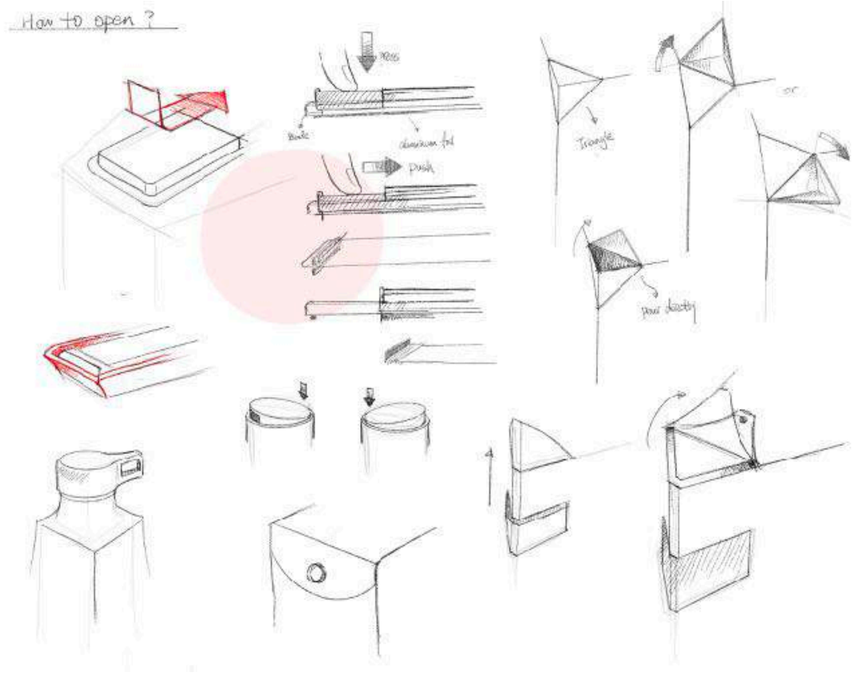
Ideations of creamy food packaging



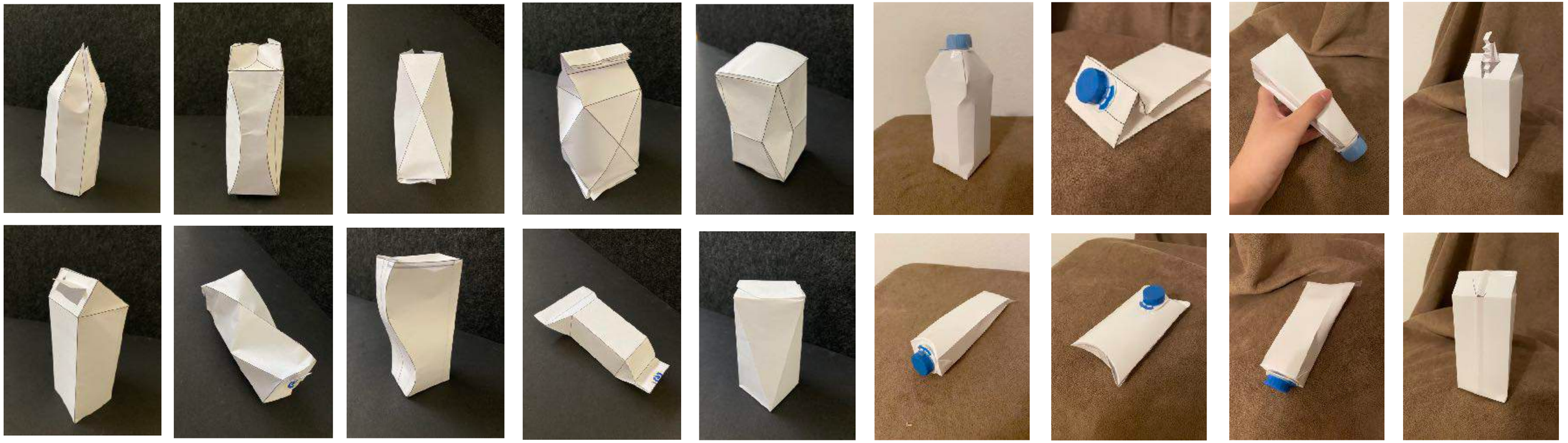
Ideations of chunky food packaging







Prototypes of Creamy and Chunky Food



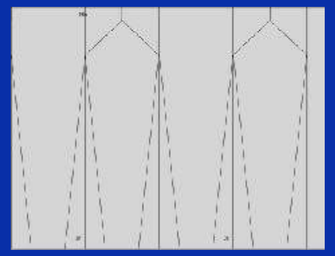
Models of Creamy and Chunky Food

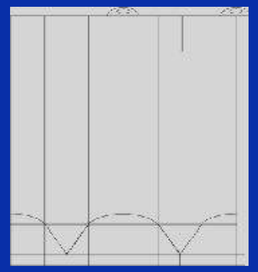
“PYRAMID”

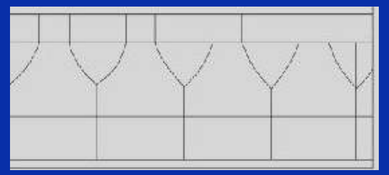
“DANGLE”

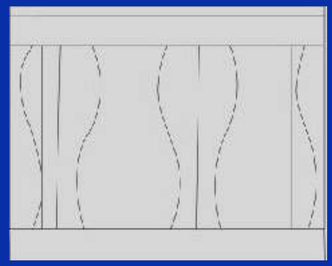
“BLOOM”

“WAVE”









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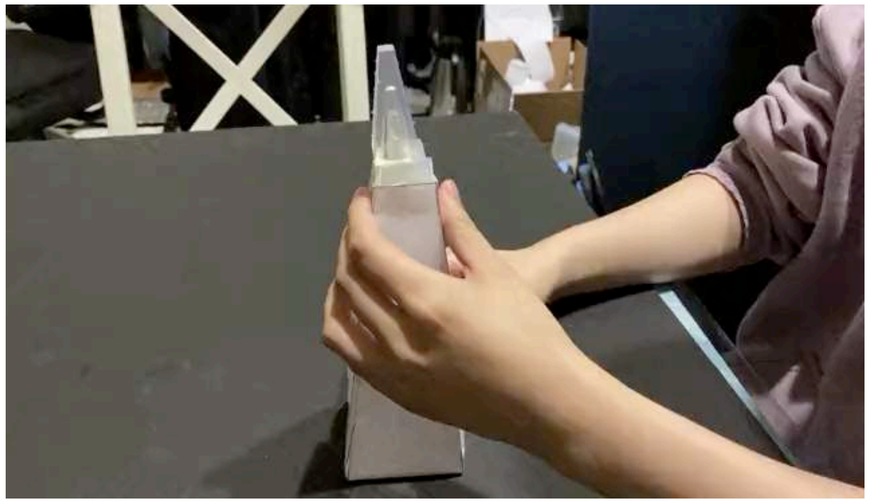
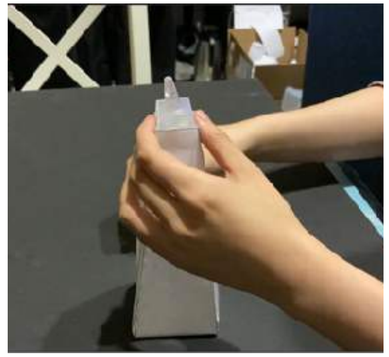
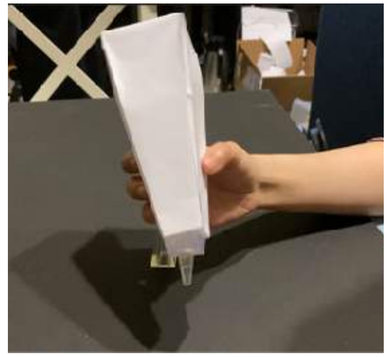
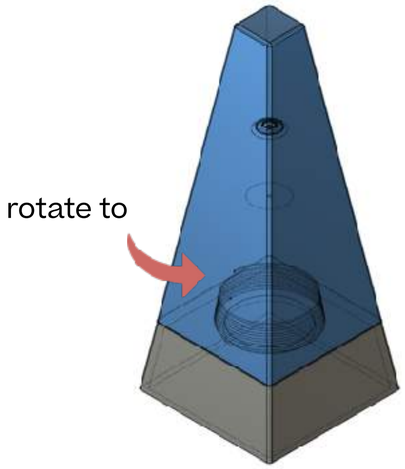
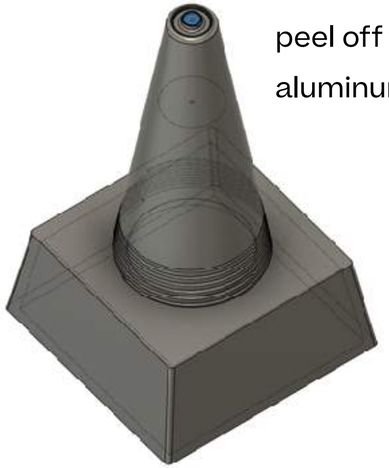
“PYRAMID” – creamy

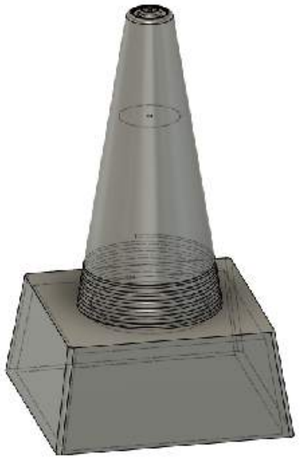




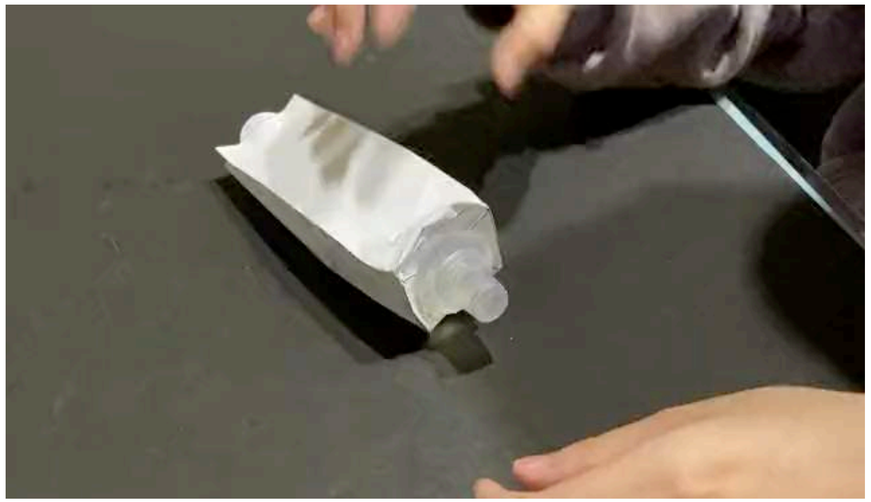


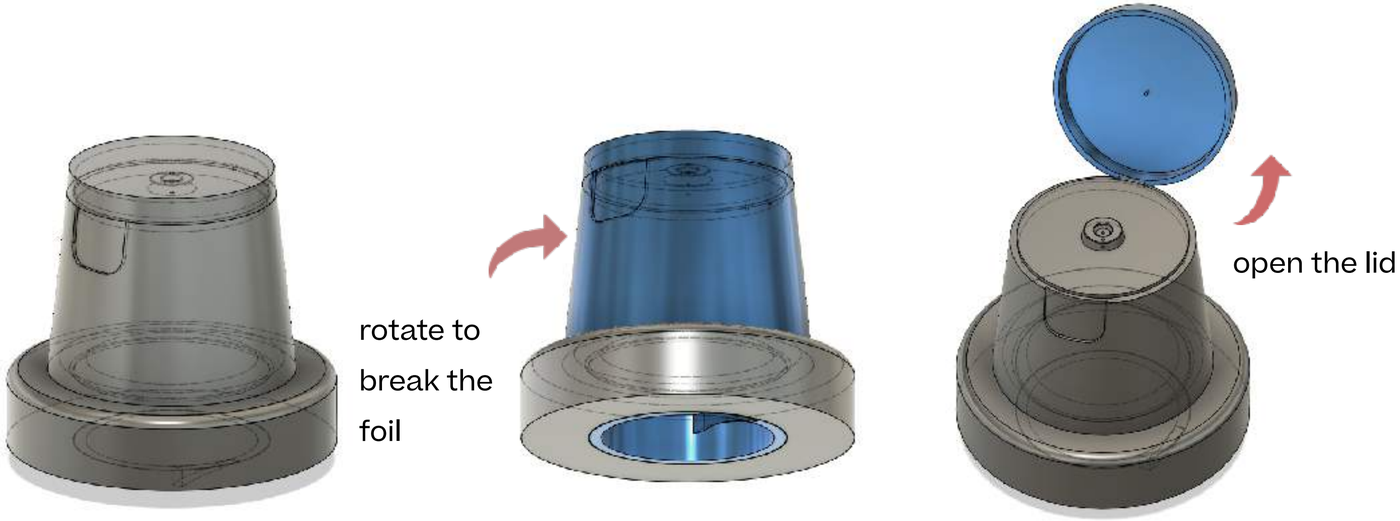




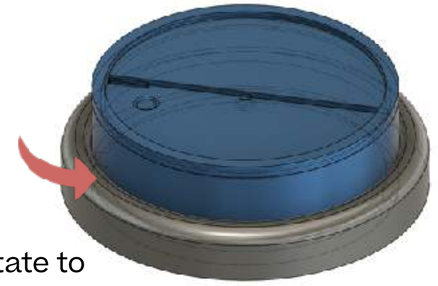


“DANGLE” – creamy

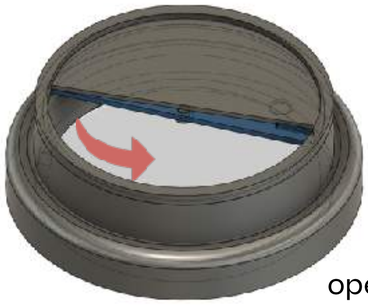




“BLOOM” – chunky

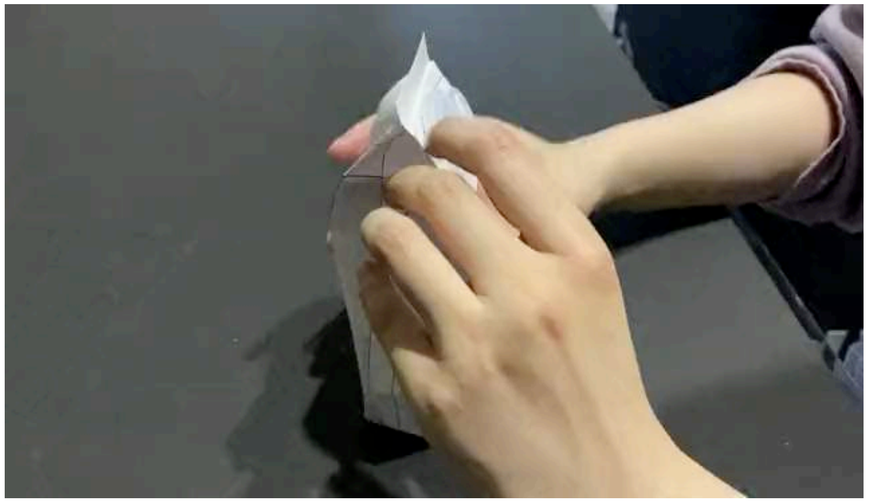


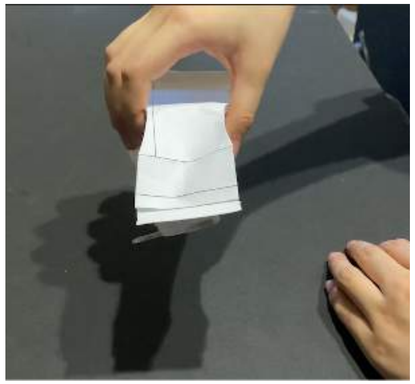
rotate to break the foil

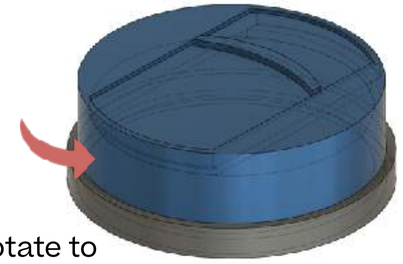


open the lid

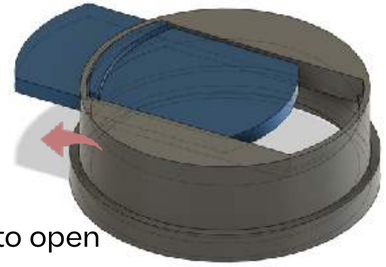
“WAVE” – chunky







rotate to break the foil



pull to open

FEEDING THE WORLD

THANK YOU!

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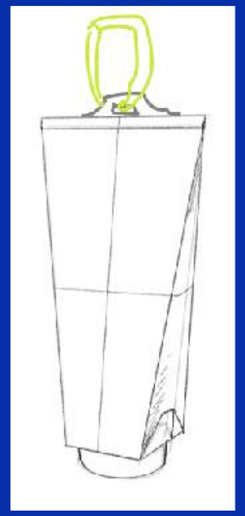
COMMENTS AND QUESTIONS

Does the tearing of this ready to eat package function?

What're SIG's past explorations of reusing the package as utensil?

Is it possible to add a tab in opening?



Is the shelf-stand way a crucial point for retailers?

If our design has a unconventional way, e.g. hanging, will the retailers be able to change their shelf-standing tradition?

Is it ok to put the aluminum foil on the top of the spout?

WEEK 9

FEEDING THE WORLD

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FEEDING THE WORLD

WEEK 9

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PERSONA

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READY TO EAT

ANDREW

Volunteer of American National Red Cross

“Volunteers should cook much more efficiently. Disaster victims need hot nutritious food and emotional care immediately. ”

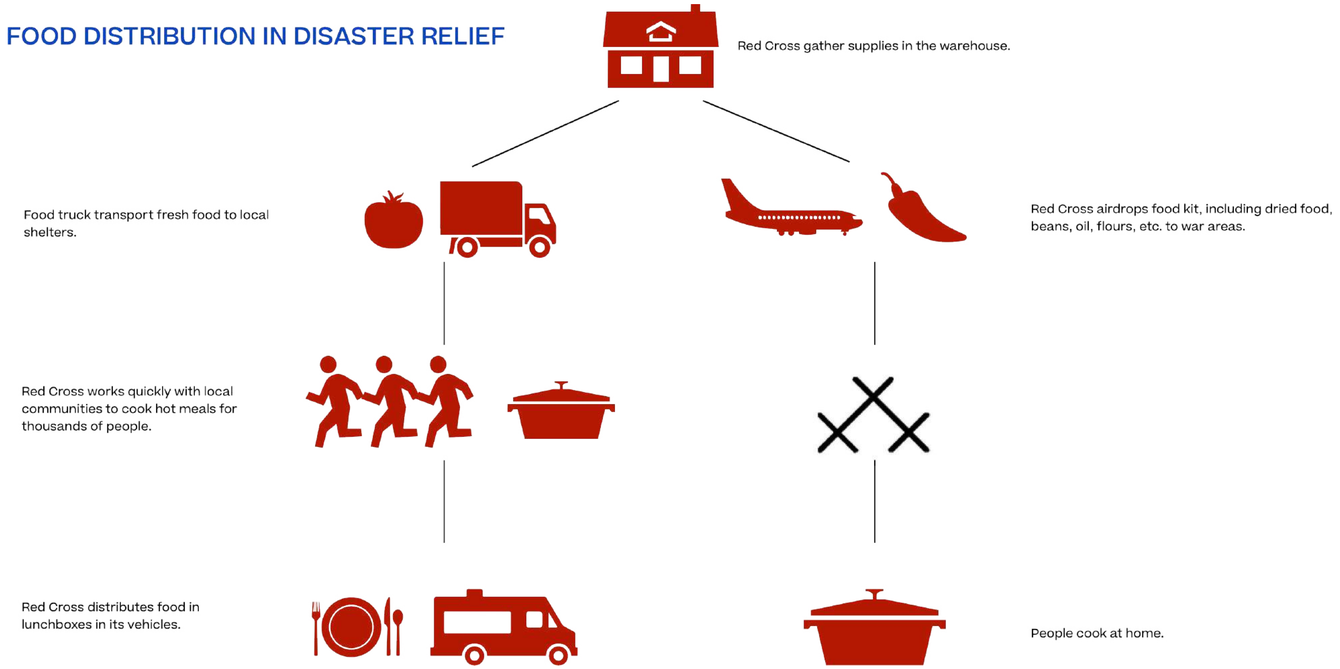
READY TO EAT

ABOUT RED CROSS

The American Red Cross is a humanitarian organization that provides emergency assistance, disaster relief during hurricane, winter storm, earthquake, home fire and wild fire.

FOOD DURING DISASTER RELIEF

In extreme situations, thousands of people gather together in the shelter at once. They are cold, terrified, hungry, and urgently need hot meal to survive. Food bank transports fresh food to us, so the preparation takes much longer than expected.



CREAMY/CHUNKY FOOD

CHISONIS

Farmer who plants corn on a small land

“We need nutritional food that is fast to pre-pare and easy to preserve. We’ll have more time for farming and survive seasonal hunger. ”

CREAMY/CHUNKY FOOD

ABOUT ME

I was born in Zambia. It's one of the Least developed countries. My husband works in a copper mine. I plant Maize like 70% of Zambian women who work in agriculture.

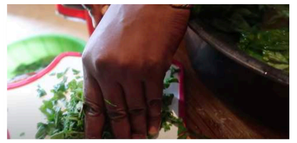
My family lives on agriculture, which contributes about 19% to GDP and employs three quarters of the population. Small farms like ours produce 80% percent of the country's need.

HUNGER AND POVERTY

People experience extreme rural poverty. Food loss is serious due to inefficient manual harvest and inappropriate storage.

FOOD PREPARATION

1. Rinse the vegetables for three times (get water from back of the house each time)



2. Cut vegetables into small pieces

3. Boil on charcoal

4. Eat with Nshima.

NSHIMA PREPARATION

Nshima is made from corn flour. Firstly, we roll the mushy mixture in our hands, until it becomes a little sphere. Secondly, we squeeze it, make it a bowl-shape, or a huge spoon. Thirdly, we put hot vegetables or meat on top of Nshima and eat.

SYMBOLS

WARM, HAPPY, EMBRACING, COMFORTING

UNIVERSAL, CONVENIENT, FAMILY, COMMUNITY

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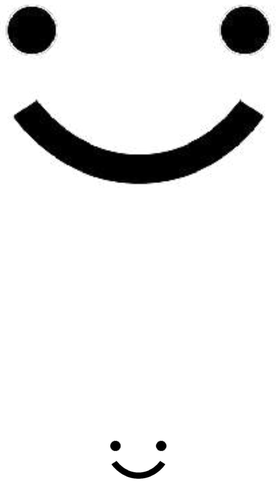
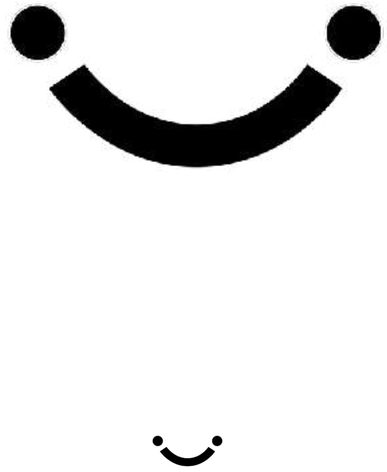
WARM SMILE





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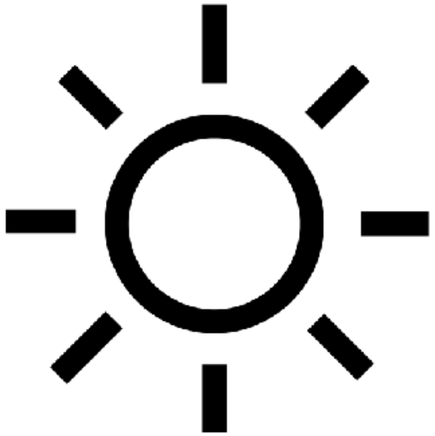
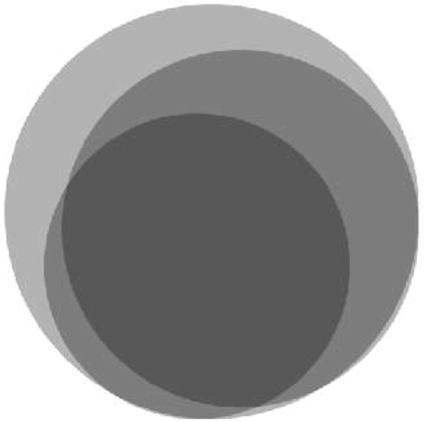
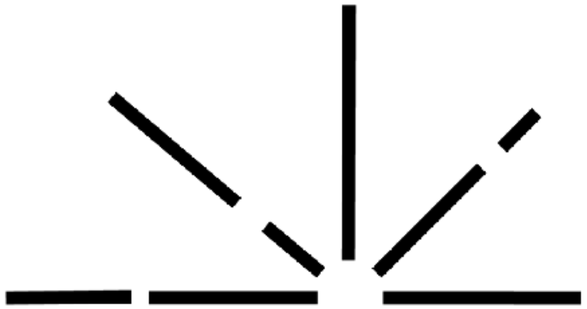
SUN







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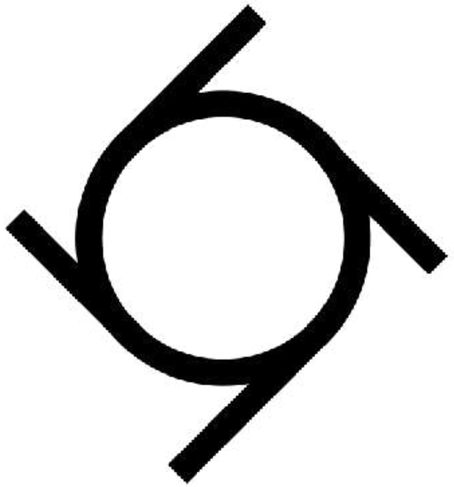
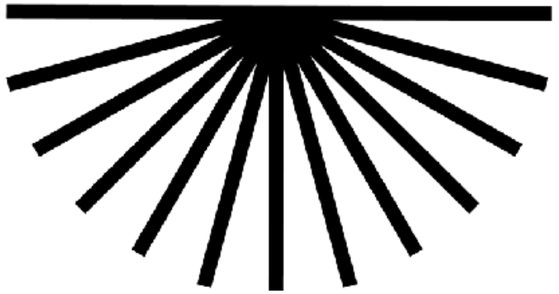
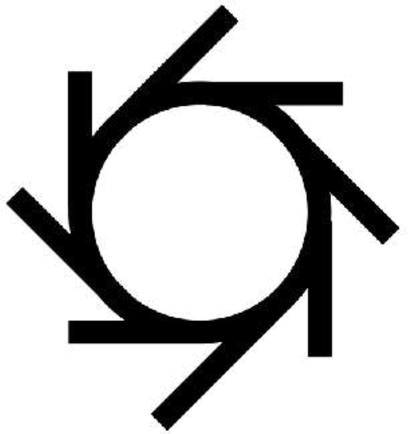
SUN







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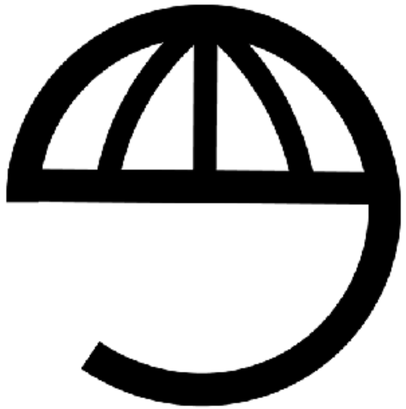
UNIVERSAL



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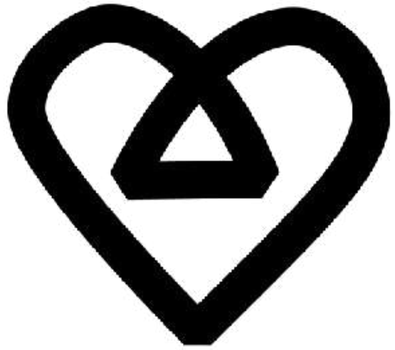

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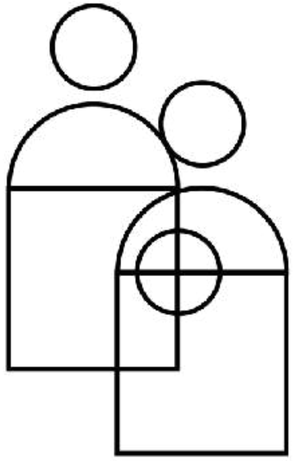
HEART

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

COMMUNITY



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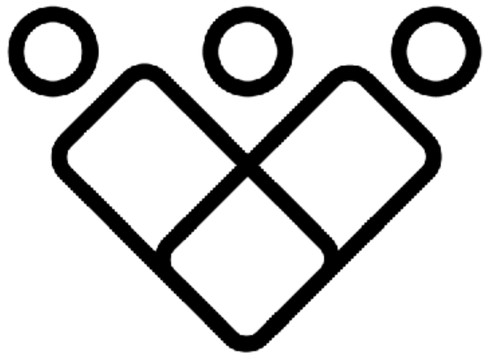
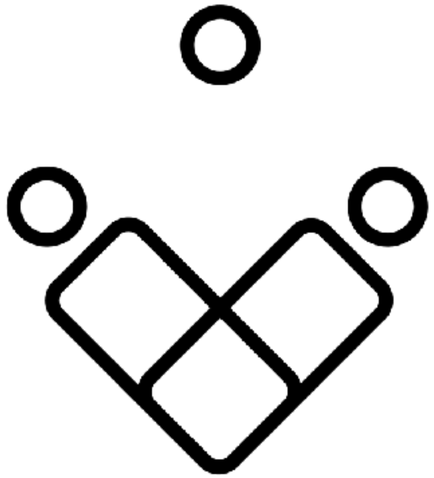
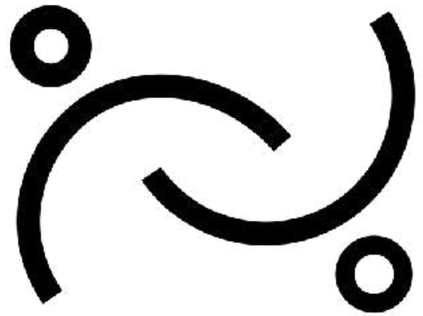
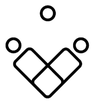
COMMUNITY









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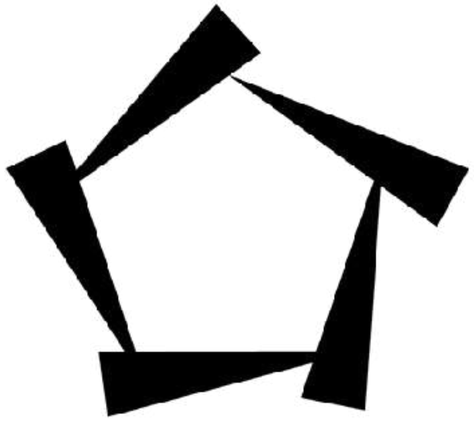

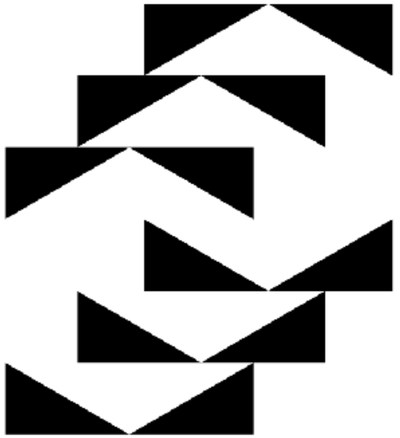

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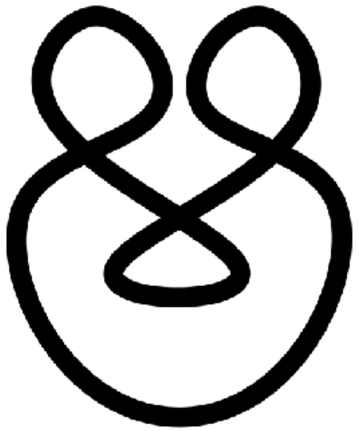

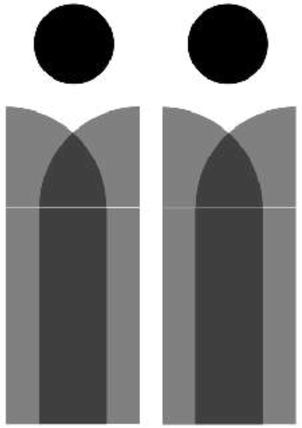

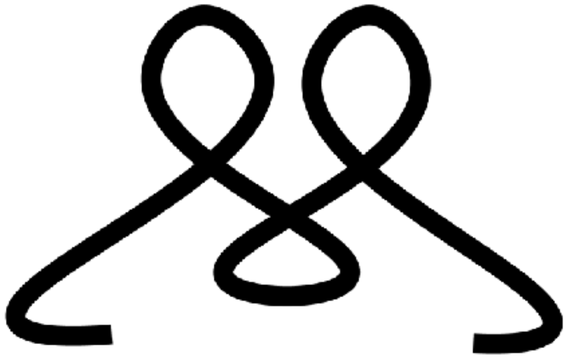

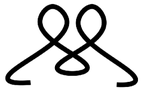

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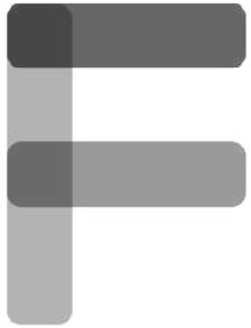

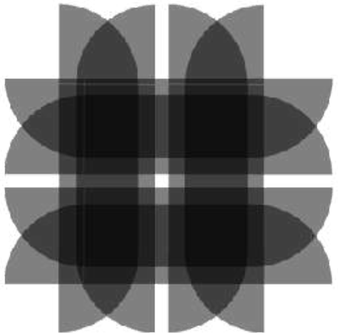

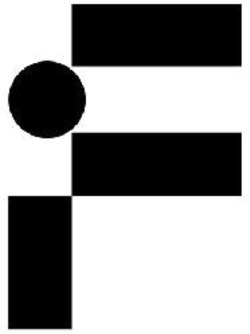

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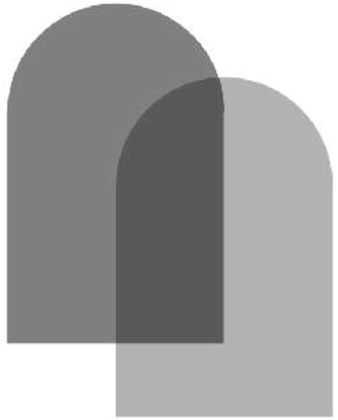

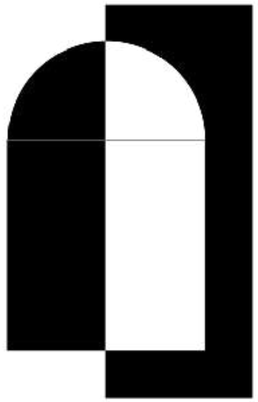

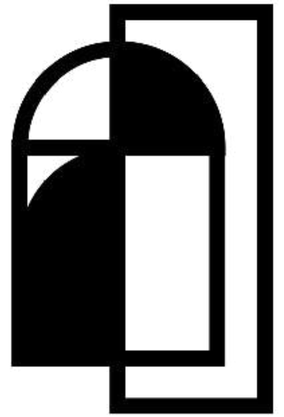

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DESIGN DEVELOPMENT

Ready to eat

Creamy food

Chunky food

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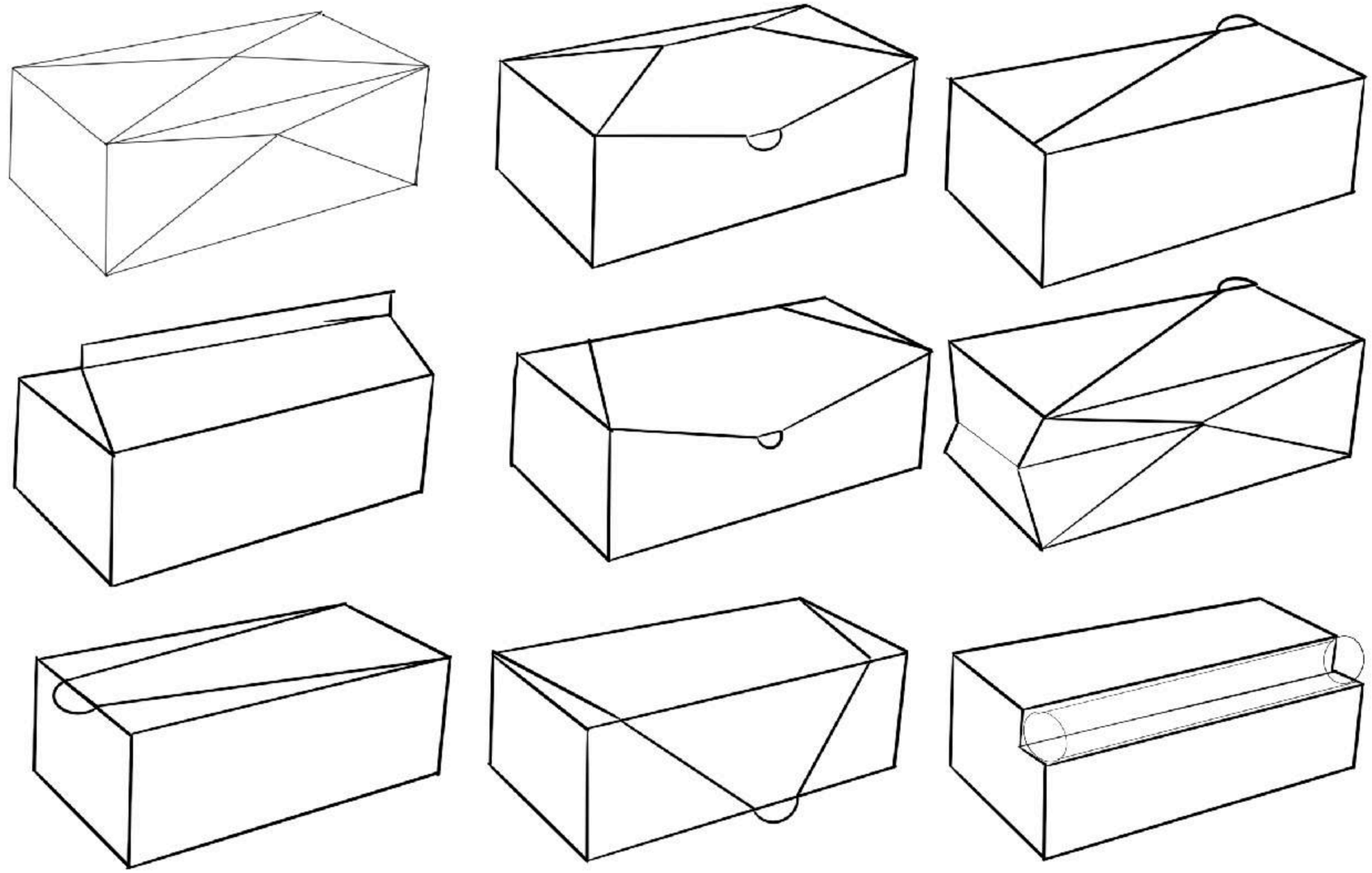
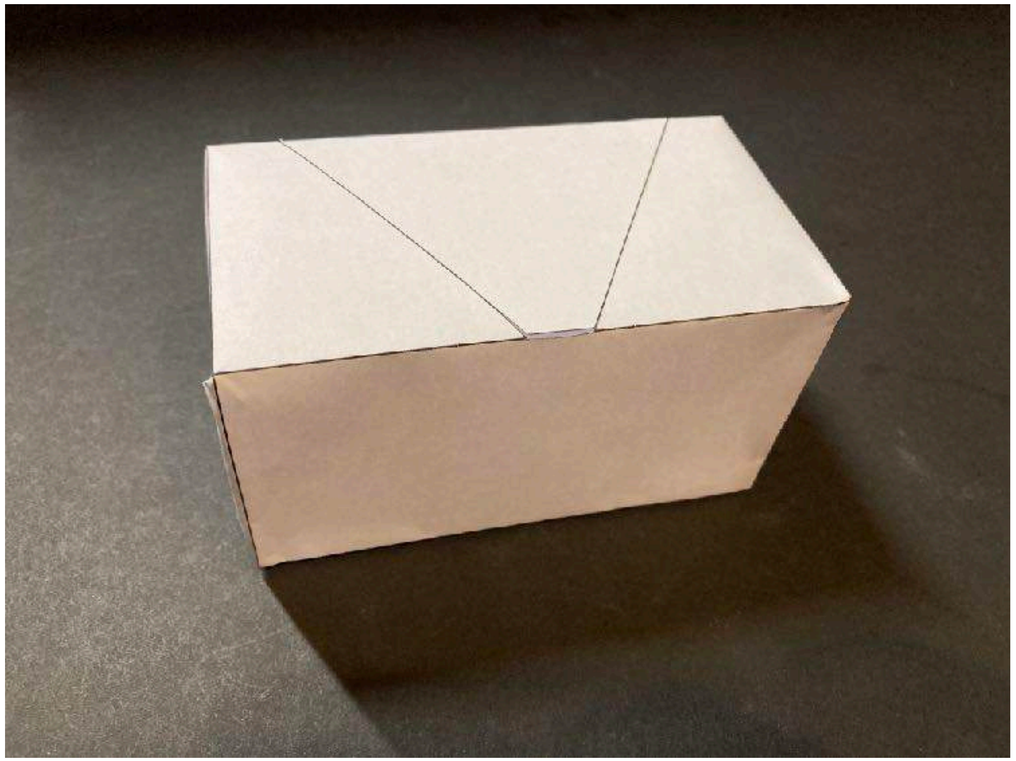
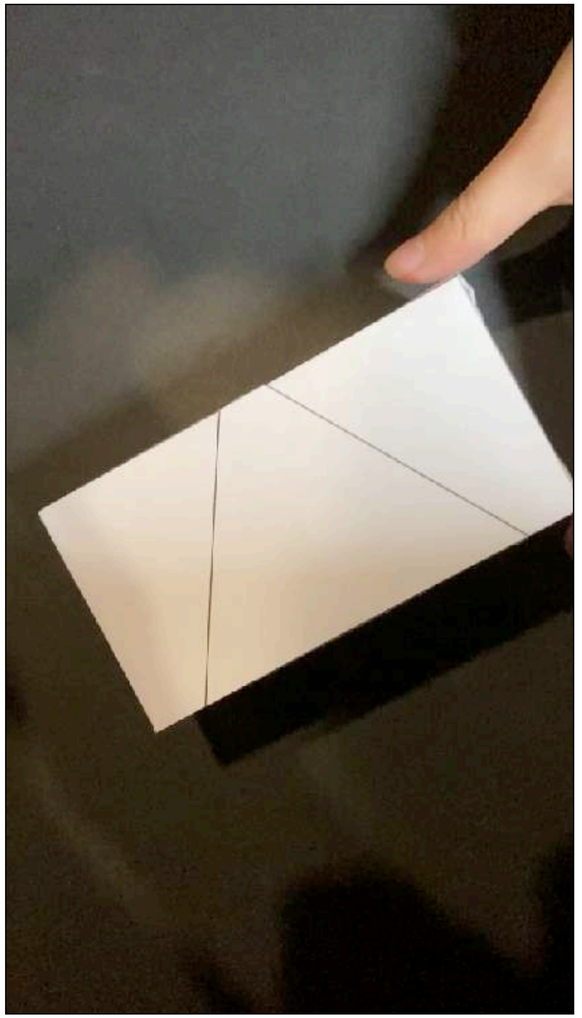
IDEATION (bento box)

- experiment more openings & how they open up

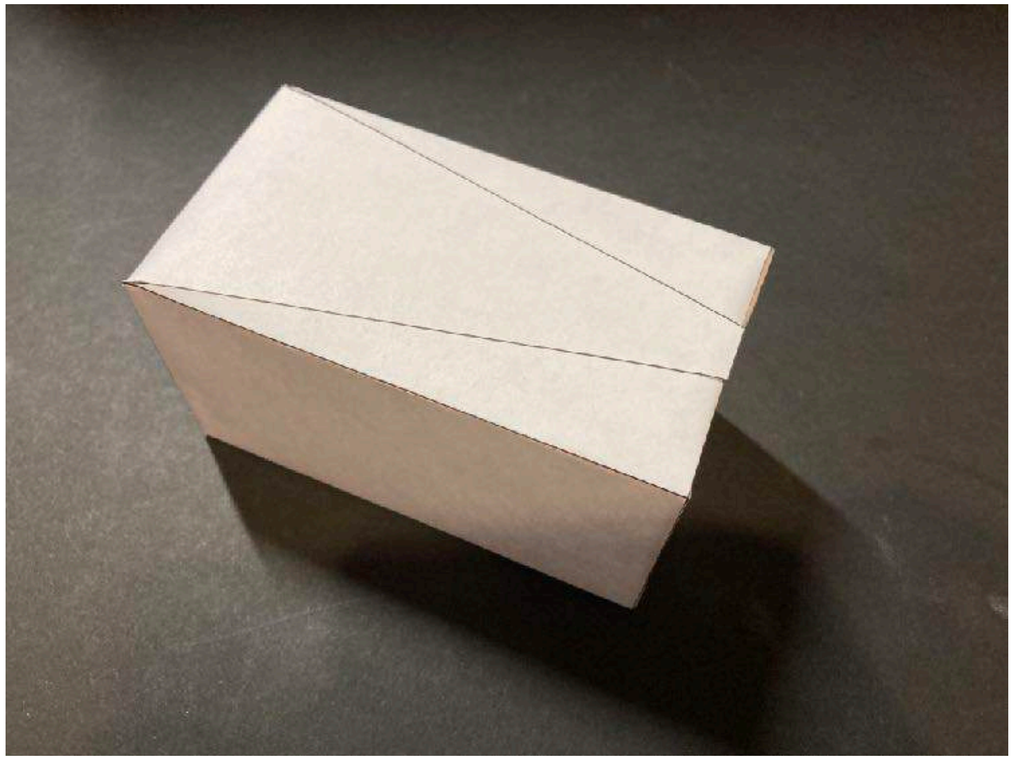


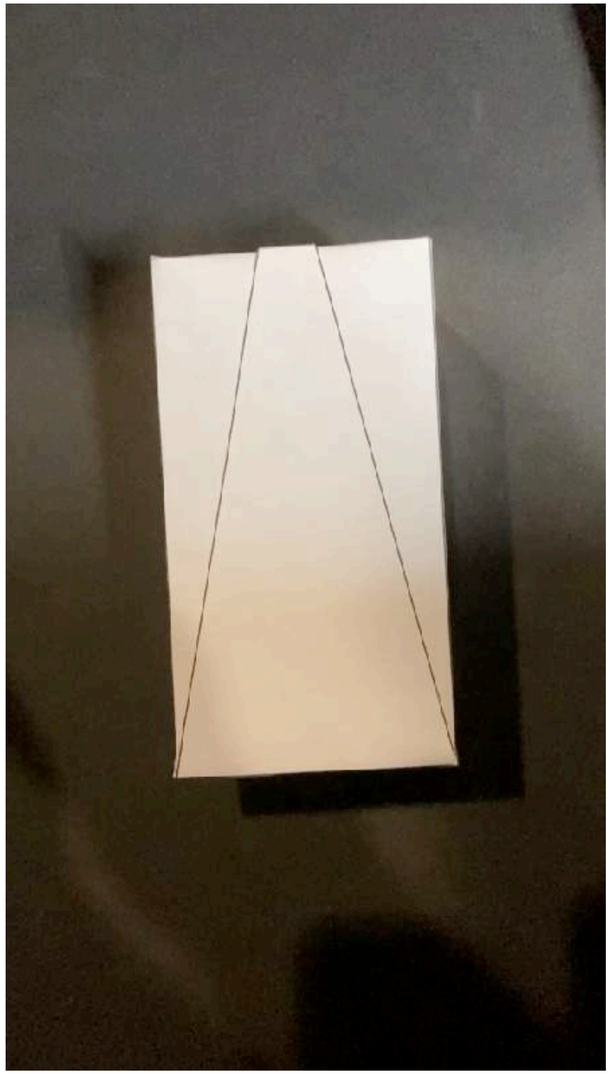
PROTOTYPE (bento box)





PROTOTYPE (bento box)





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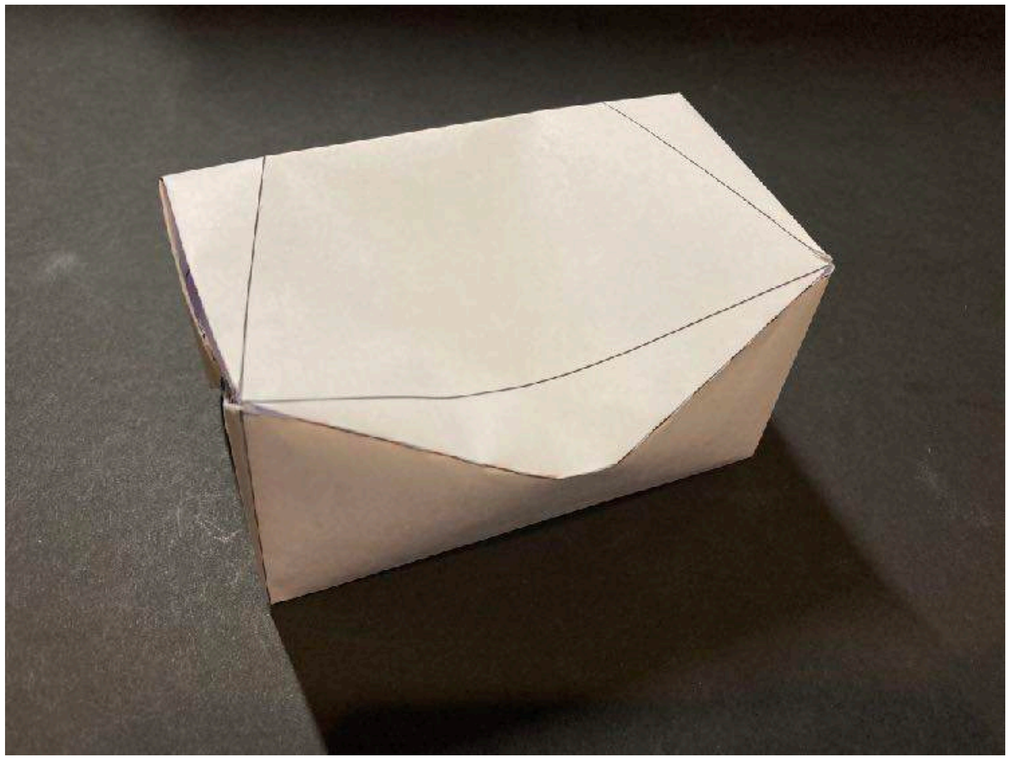
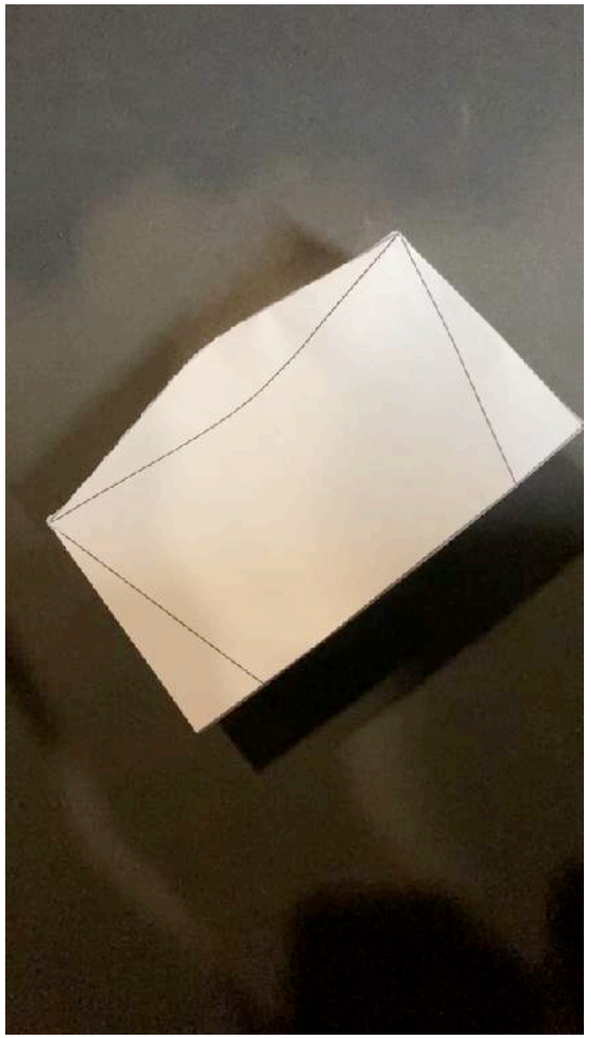
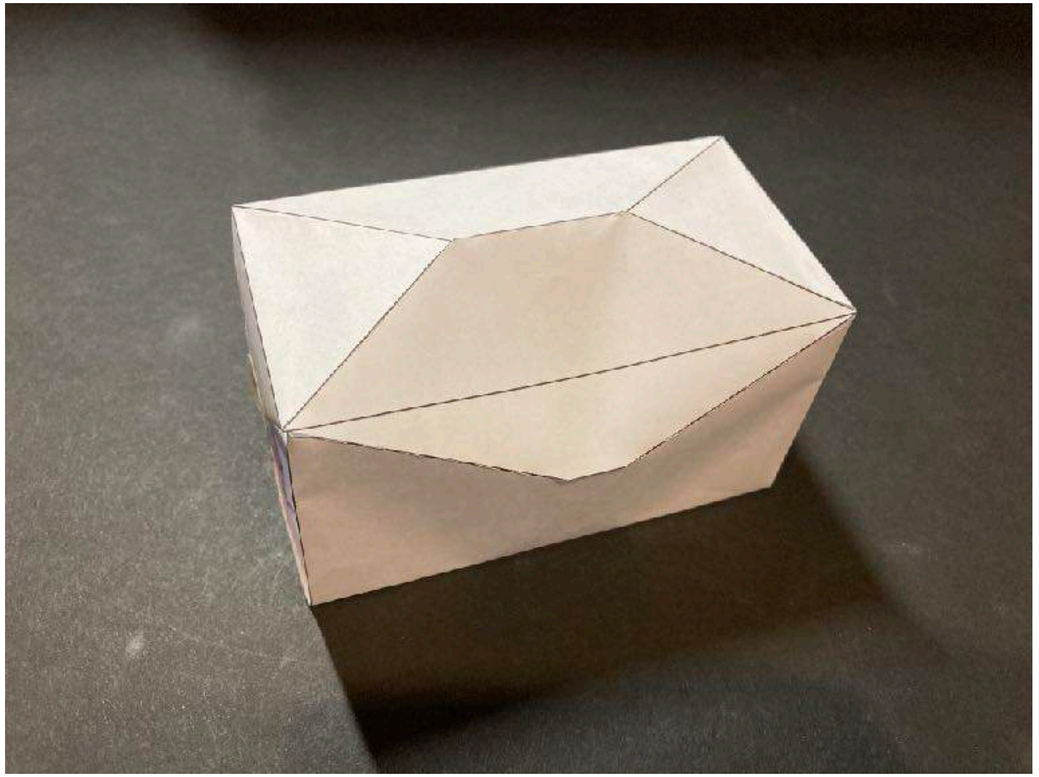
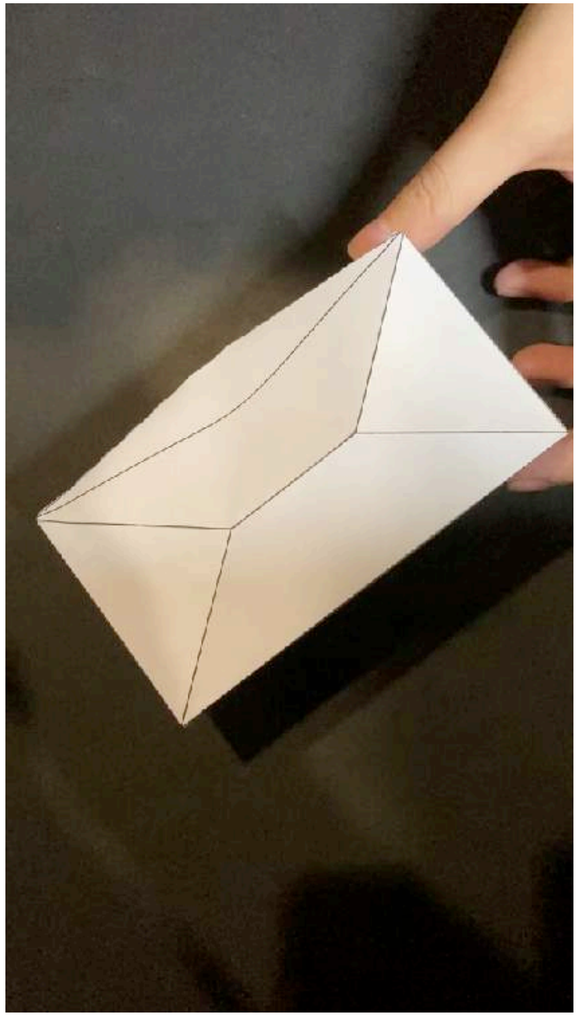
PROTOTYPE (bento box)





PROTOTYPE (bento box)





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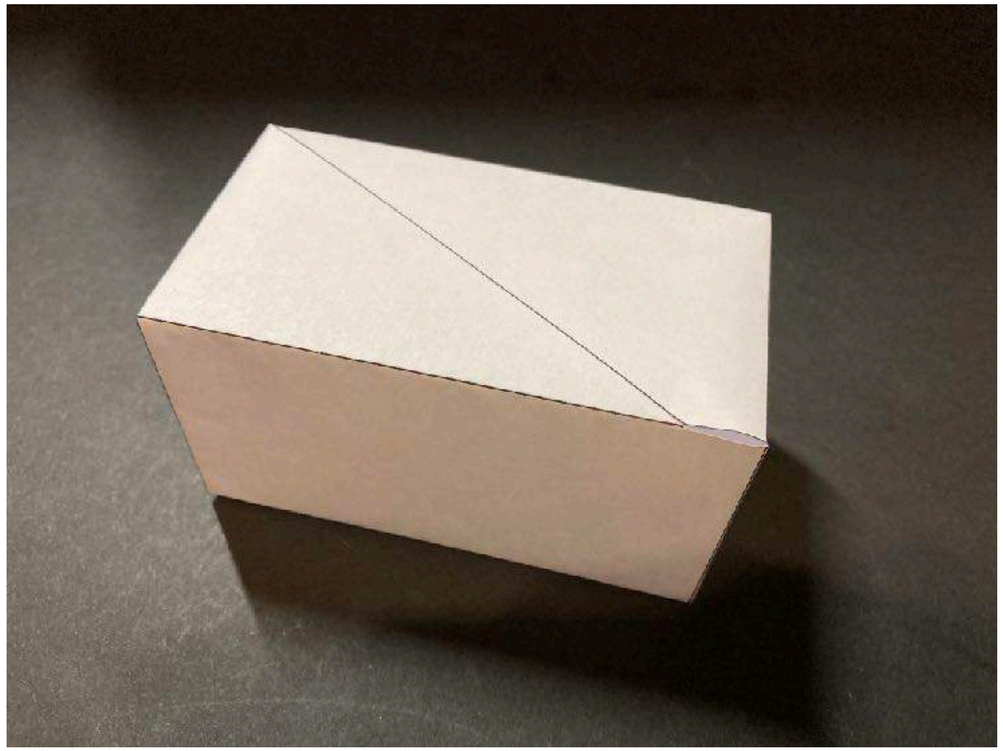
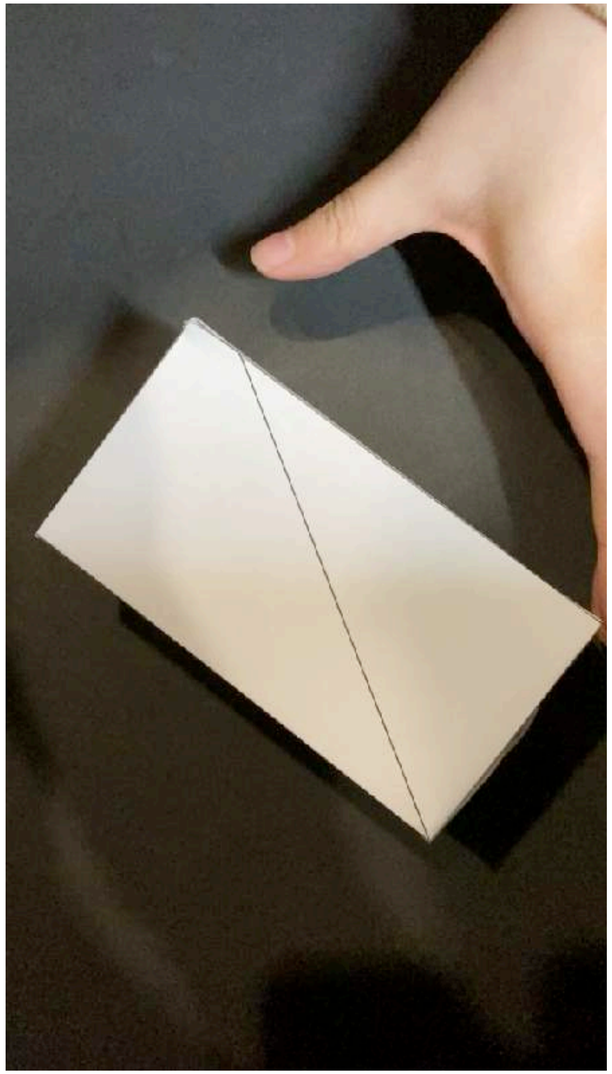
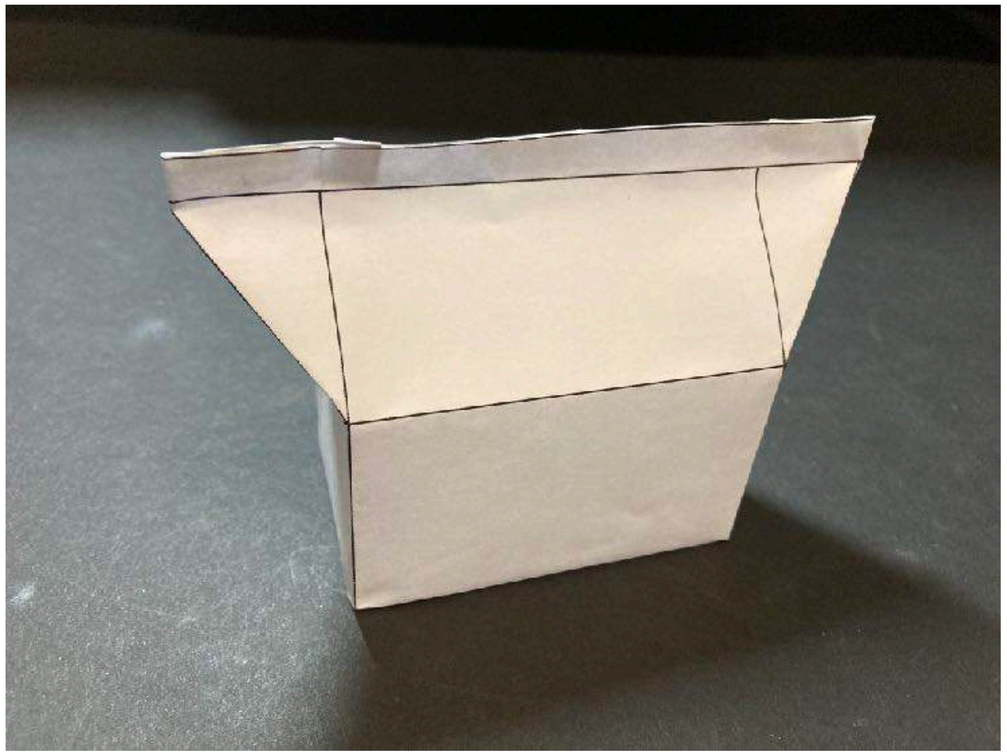




PROTOTYPE (bento box)



PROBLEMS

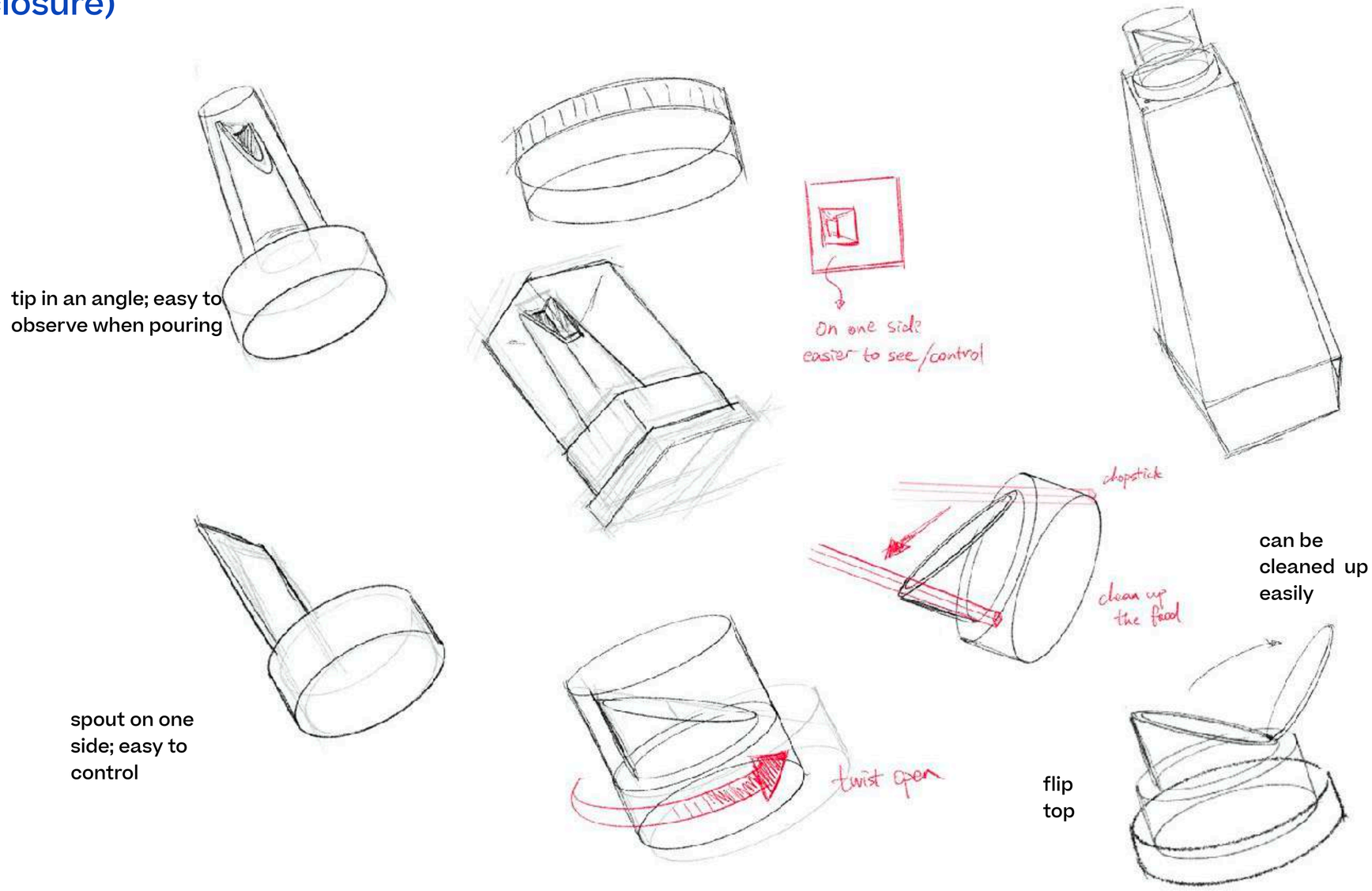
- it's hard to tear out the part smoothly

NEXT WEEK

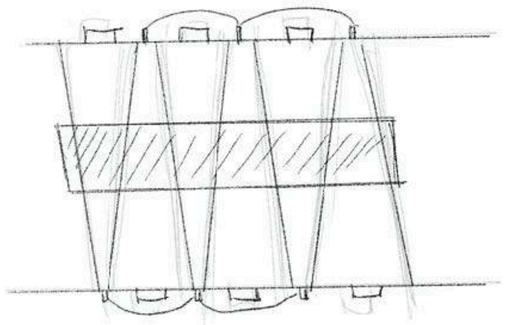
- figure out how the spoon folds

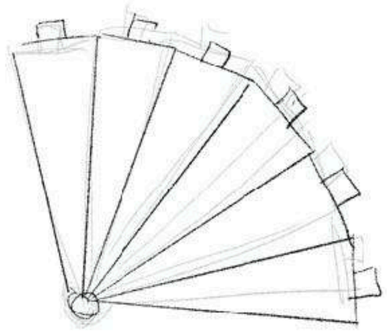
-figure out the tearing (might be the space between precuts, thickness of paper, shape of the perforation pattern)

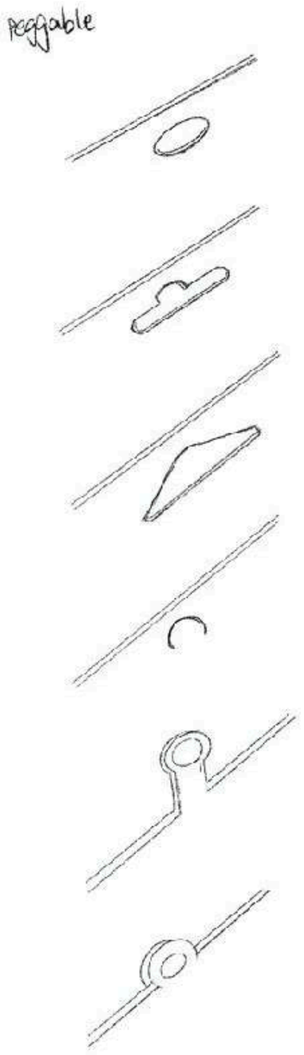
IDEATION (creamy food closure)

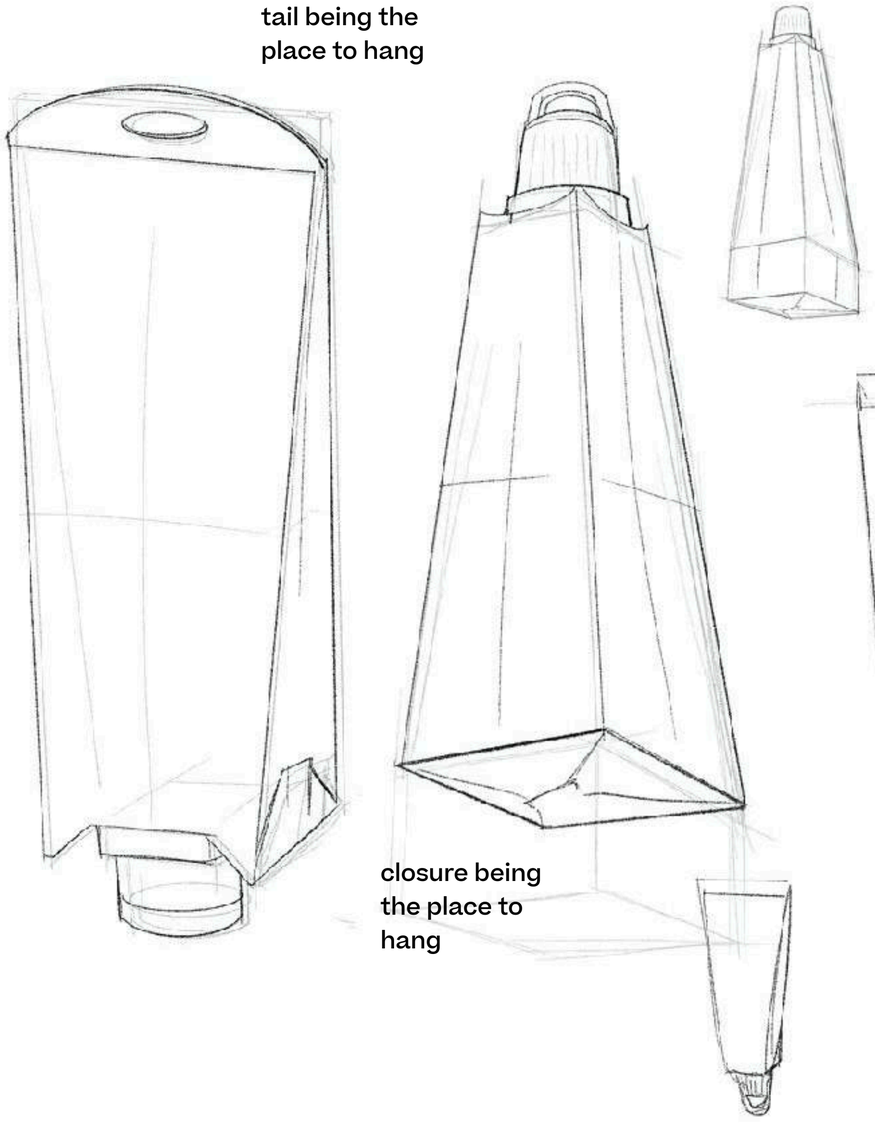


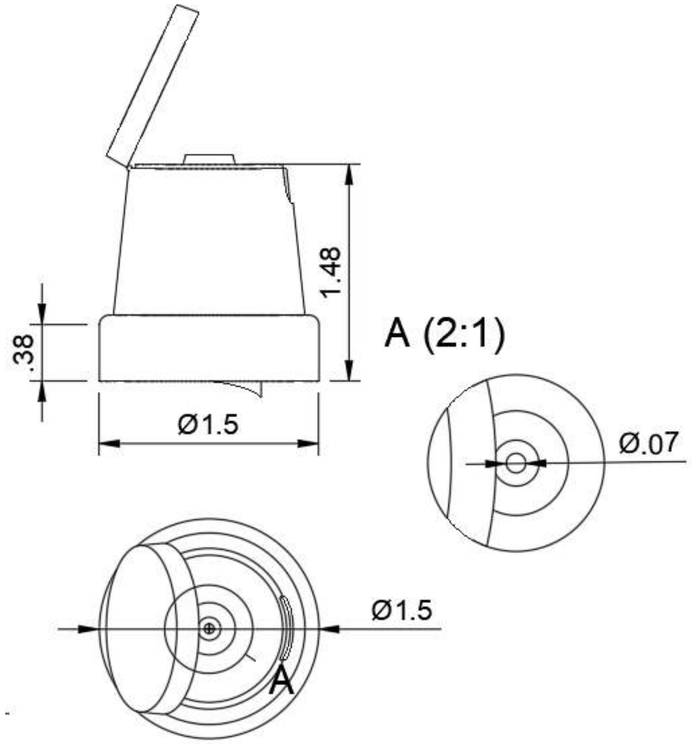
IDEATION (creamy food)







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A (2:1)
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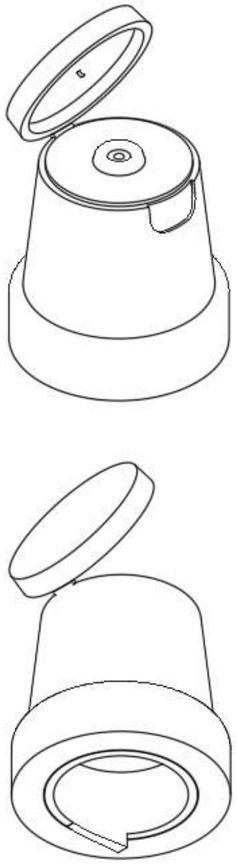

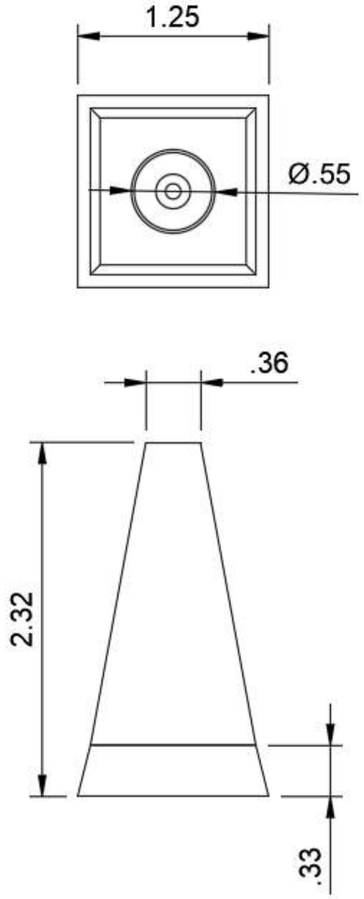

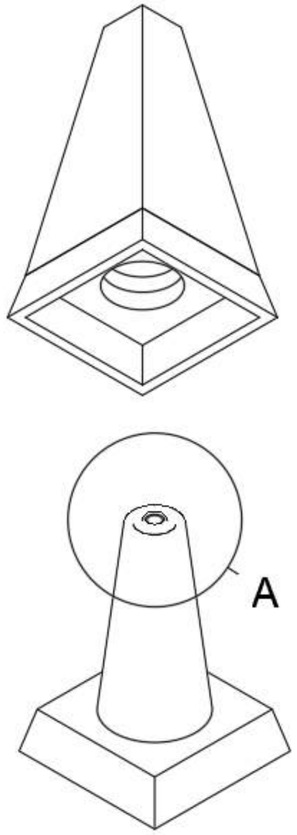

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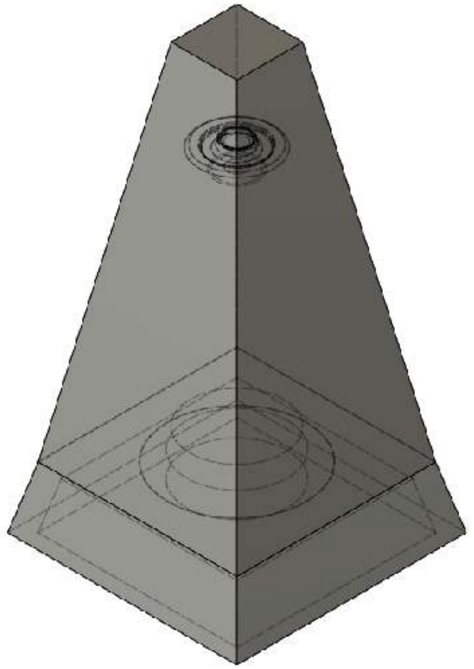

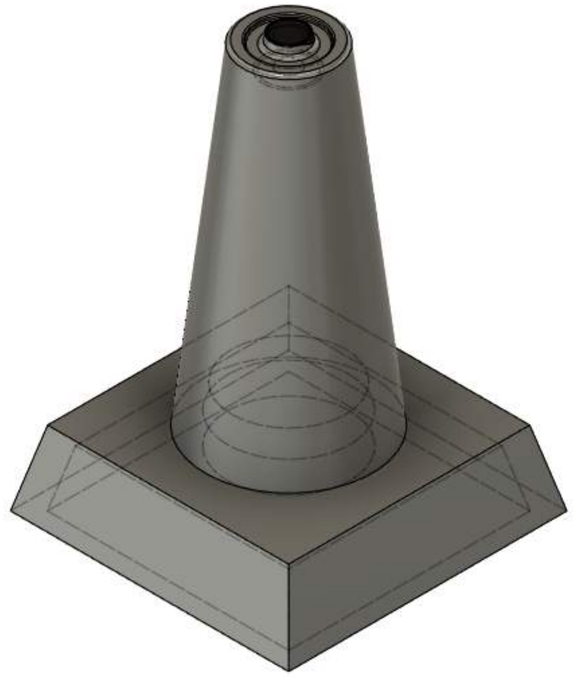

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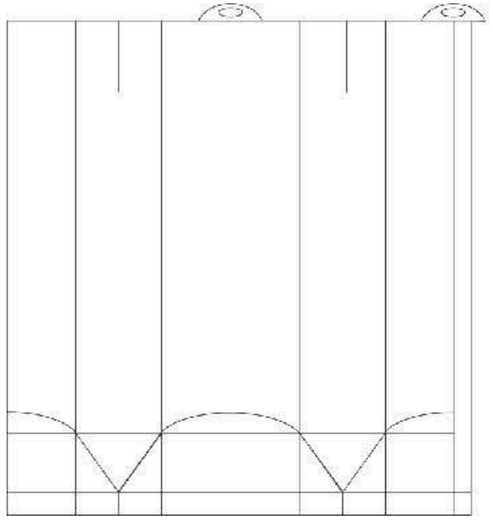

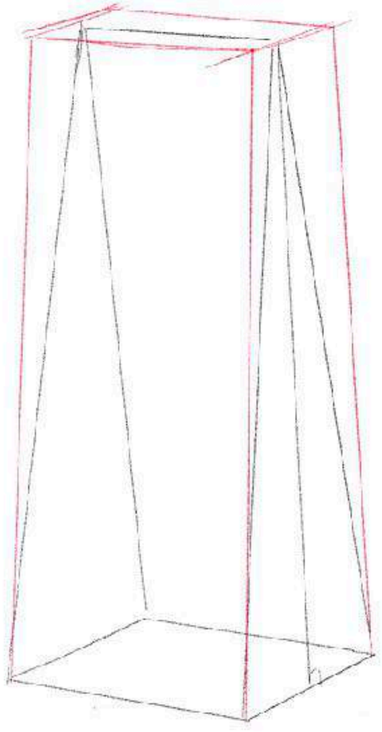

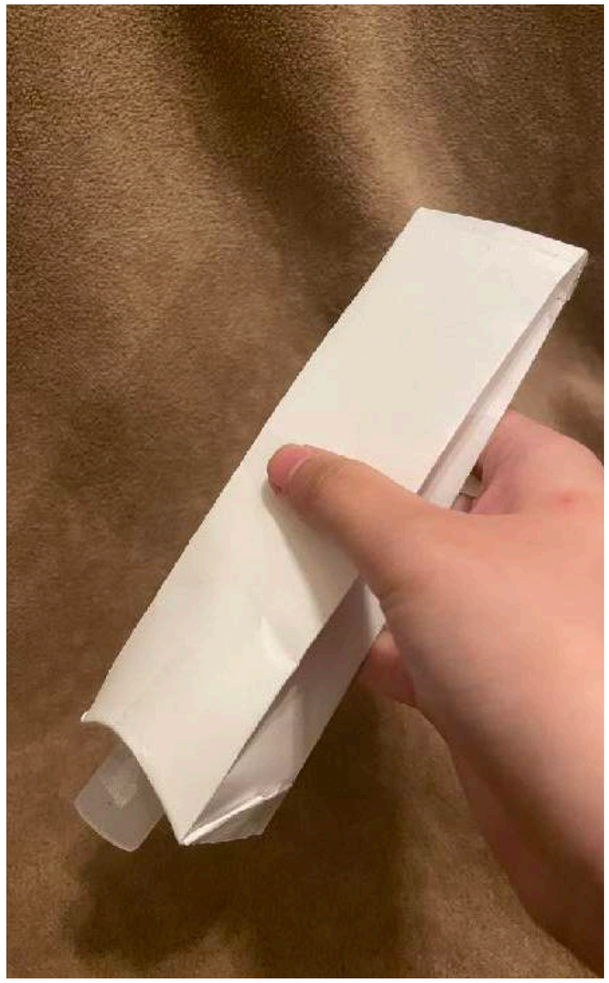

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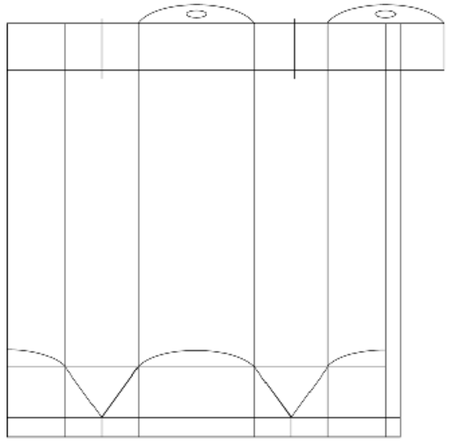
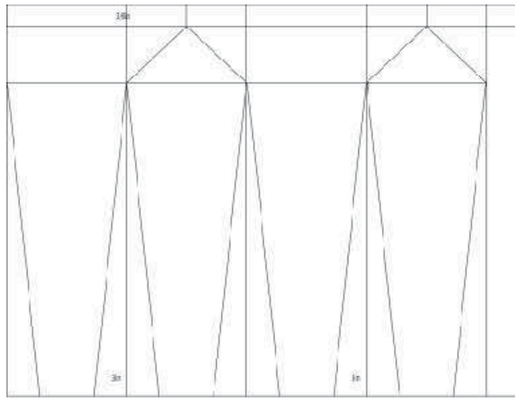


490ml



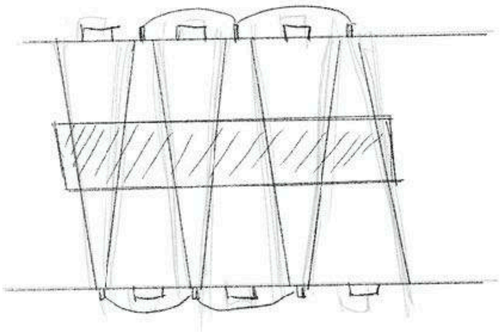
PROBLEMS

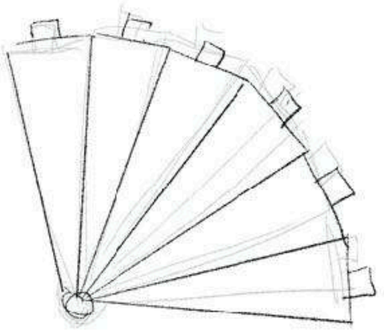
- Refine according to the volume requirement. Is it necessary to have all three sizes?

NEXT WEEK

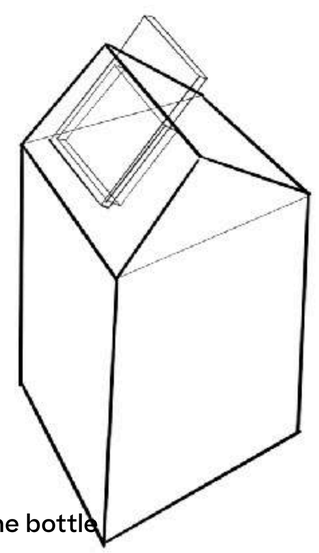
- Refine the dimensions

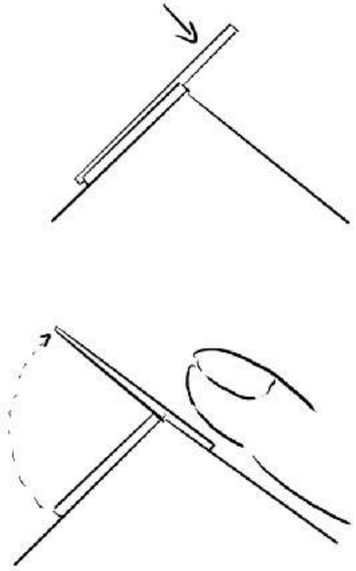
- Think more about how it's transported without plastic



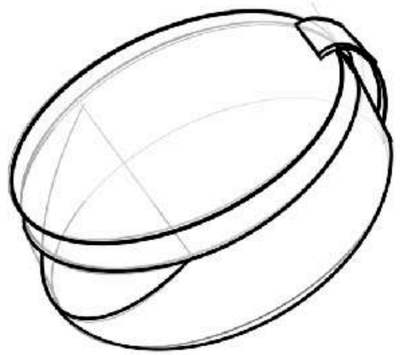


IDEATION (chunky food closure)

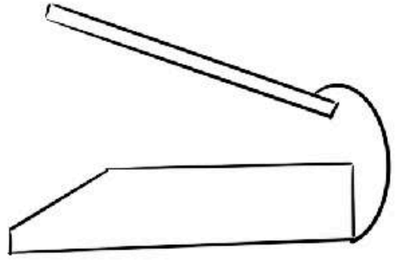


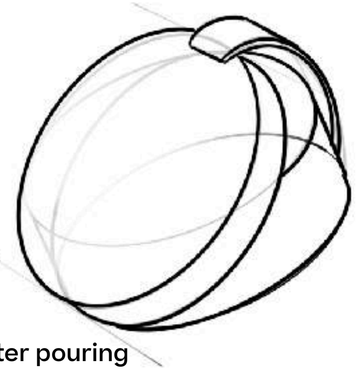


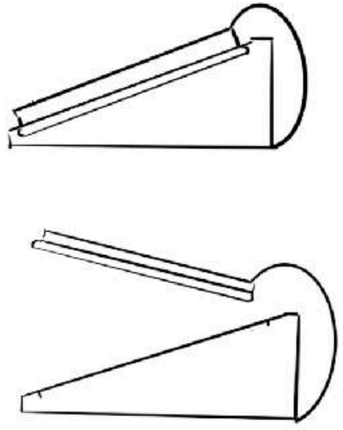
- push on the end to open the bottle



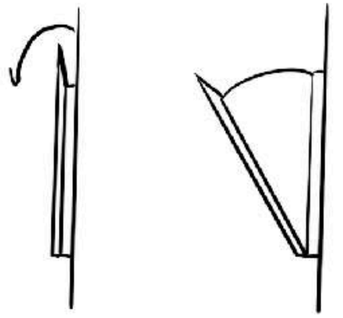
- chamfer for easy open with finger





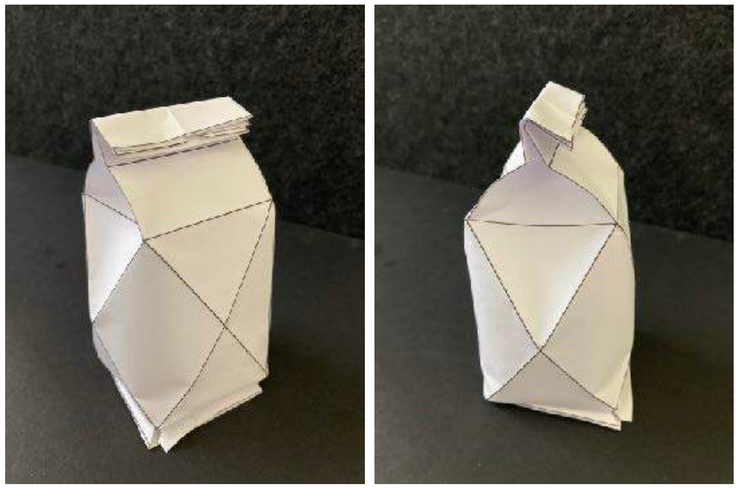


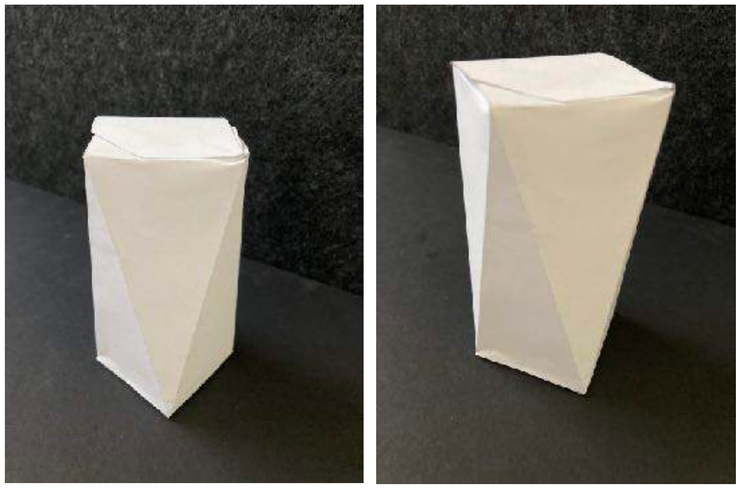
- angled closure for better pouring



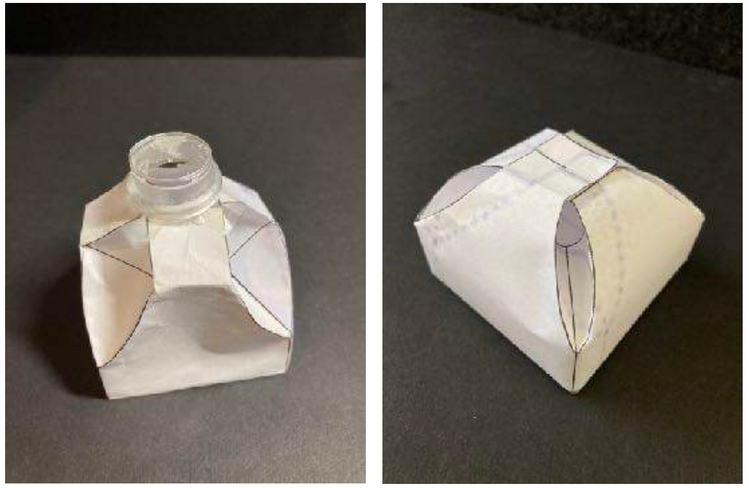
- pull on the tab to open

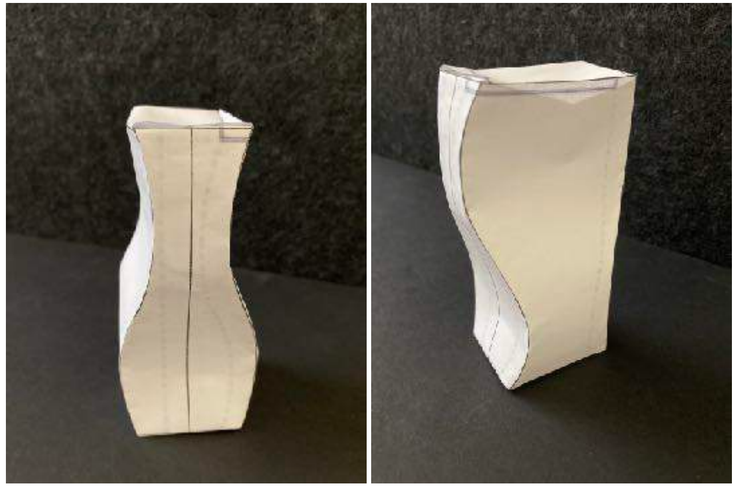
PROTOTYPE (chunky food)

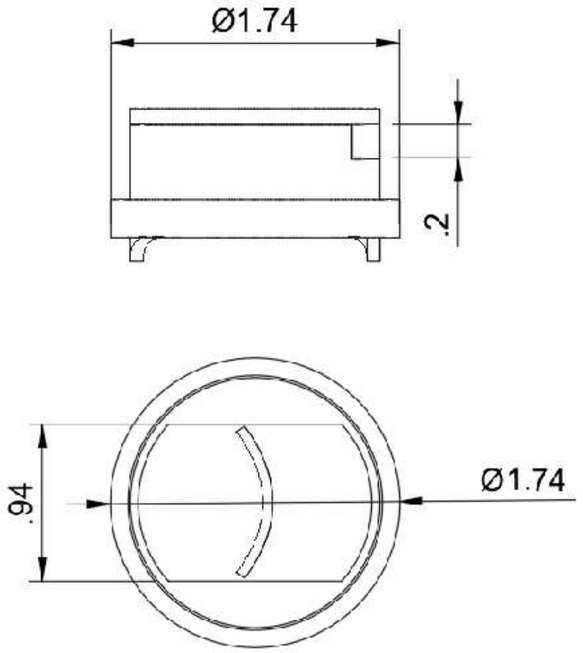




- those are the models that we found the most promising and will continue to explore



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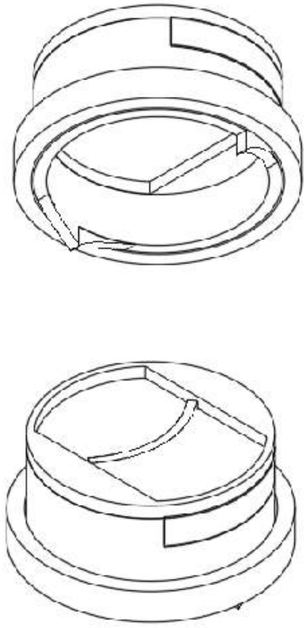
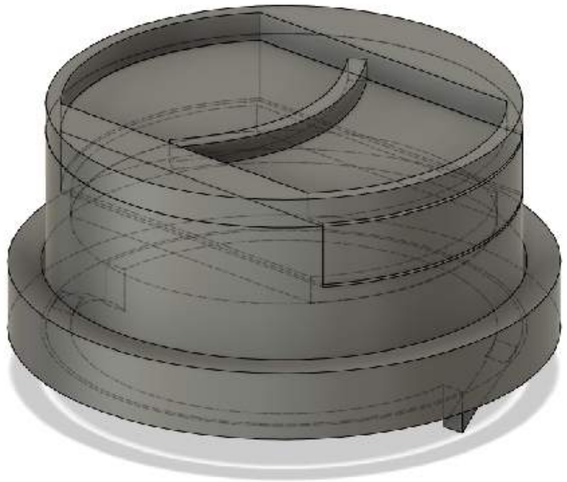
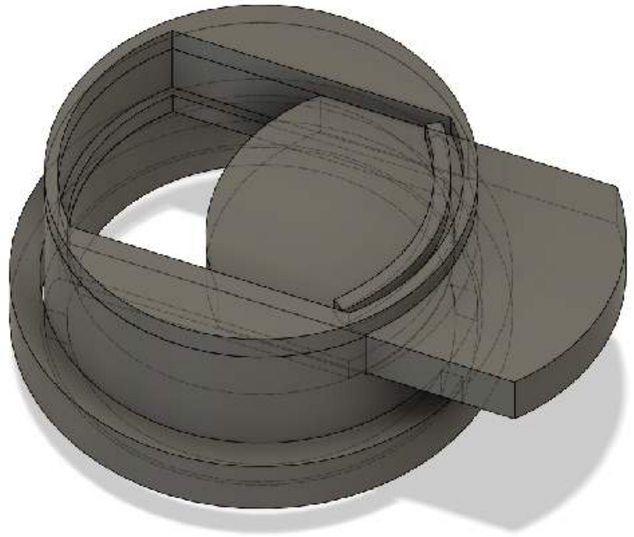
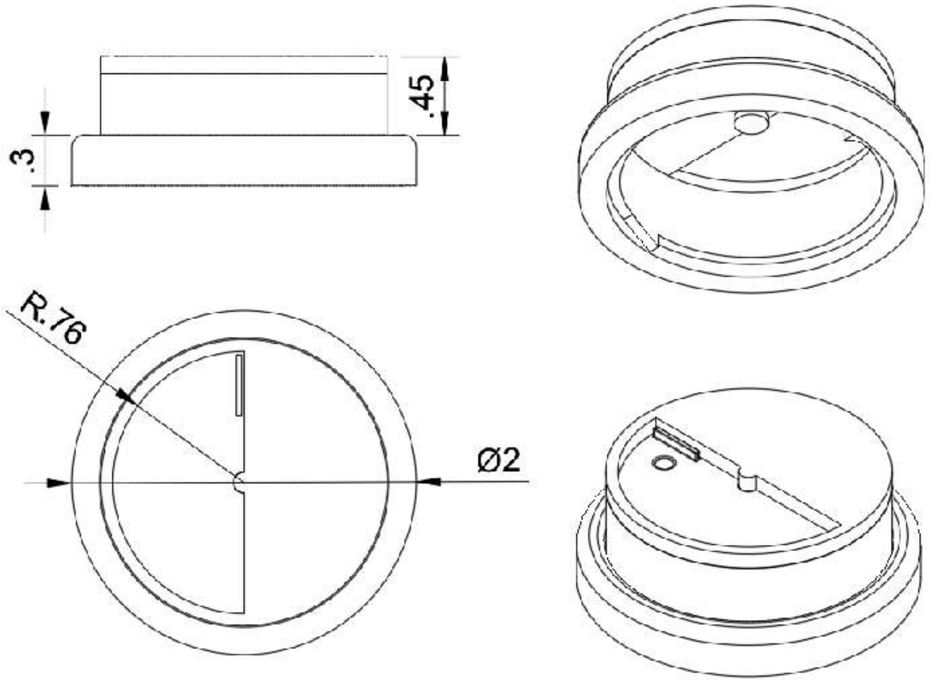
Ø1.74





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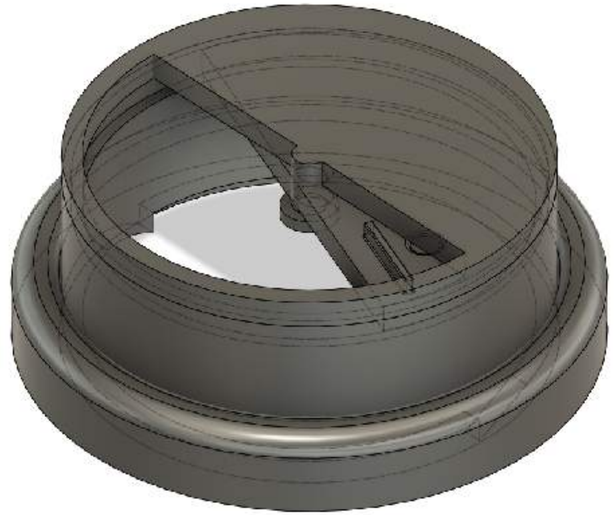

PROBLEMS

- don't know if the closures and cartons can work together

NEXT WEEK

- match closures with carton designs and test them out

-develop carton designs

-develop closures (dimensions)

WEEK 10

FEEDING THE WORLD

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BRAND ANALYSIS

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Statement

We design revolutionary aseptic cartons with distinctive functions and forms. These designs aim to help people **eat better** in both short way and long way.

Our “ready to eat” microwavable, utensil embedded carton plays a significant role in emergent disaster relief. We also design cartons based on different food textures to provide fresh, nutritional food for worldwide eaters.

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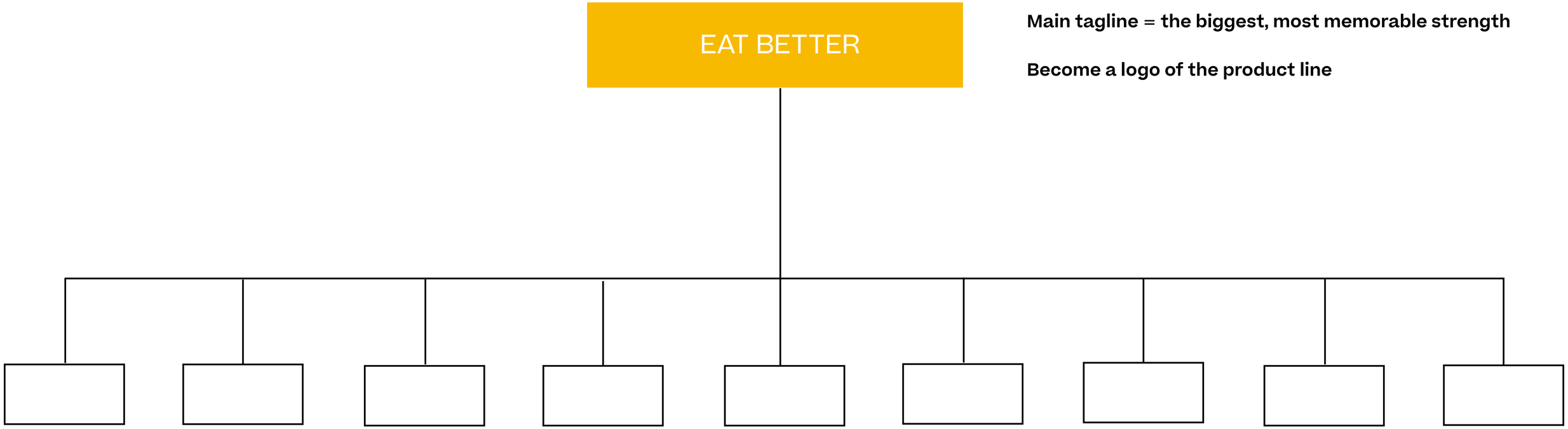
Product line

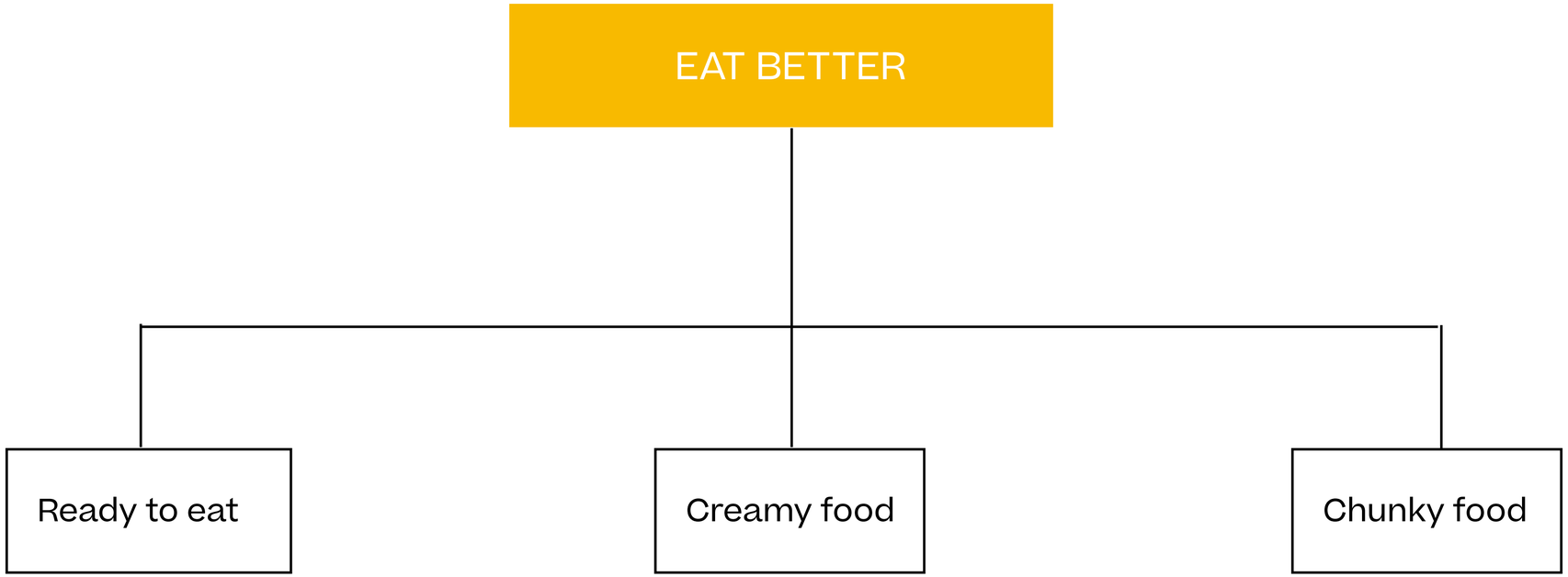


Main tagline = the biggest, most memorable strength

Become a logo of the product line

The name must show the key feature of each design.

Main direction



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GRAPHIC DESIGN SYSTEM

What information will appear on the cartons we present to SIG?

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Visual hierarchy

1. Product line name = overall biggest **strength**/ distinctiveness → EAT BETTER

2. Individual Product name = **key feature** → **Eg. “Combifast”**

3. Information design:
   - Benefit of the design to SIG
   - User manual (how to use)
   - User scenario (where, who, what, when) → **Tell the background story**
   - What’s the food inside

4. Food texture: indicate with pattern

Keywords

Appetizing

Fresh & healthy

Energetic

Warm-hearted

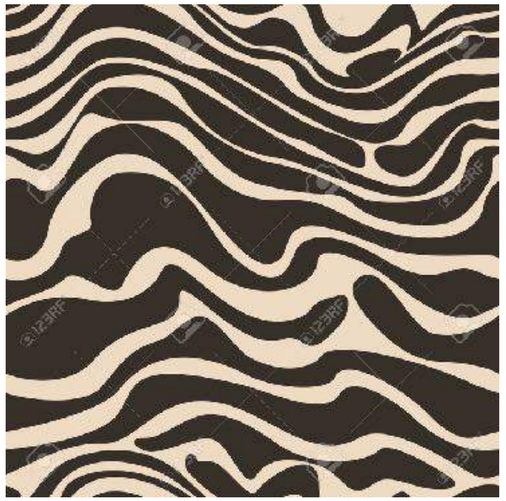
Vibrant

Various food texture

Illustrative

Food texture as pattern

Creamy: lines, smooth, flowing



Chunky: dots, solid

Ready to eat: instant, hot, dynamic, busy

Typography

Tagline

Eat Better.

Product name

Combifast

Infographic

Open the perforation along the dashed line.

VISUAL REFERENCE

Visual reference: minimal san serif + adorable illustration **pattern**

Front and back:

Packaging series name + individual design name + illustration/graphical pattern

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milky mood
high protein
3,2%
ultra-filtered milk
1000 ml
milky mood
high protein
2,5%
ultra-filtered milk
1000 ml
milky mood
high protein
1,8%
ultra-filtered milk
1000 ml
milky mood
high protein
0,5%
ultra-filtered milk
1000 ml

HAZELNUT
HANDMADE ICE CREAM
THE NICE COMPANY
SALTED PEANUT BUTTER
500 ml
BUTTERSCOTCH
STRAWBERRY

nourish&care
This product has been created by an Australian Pharmacist & Naturopath so you already know it's going to be good for you.
MILKY ALMONDS CHOCOLATE
Contains naturally derived Calcium and Vitamin D
8L
Pharmacist & Naturopath created and recommended
8 x 40g parcels (320 g)
Good for the gut!
Made in Australia
nourish&care
This product has been created by an Australian Pharmacist & Naturopath so you already know it's going to be good for you.
MILKY ALMONDS ORIGINAL
Contains naturally derived Calcium and Vitamin D
8L
Pharmacist & Naturopath created and recommended
8 x 40g parcels (320 g)
Good for the gut!
Made in Australia
nourish&care
This product has been created by an Australian Pharmacist & Naturopath so you already know it's going to be good for you.
MILKY ALMONDS STRAWBERRY
Contains naturally derived Calcium and Vitamin D
8L
Pharmacist & Naturopath created and recommended
8 x 40g parcels (320 g)
Good for the gut!
Made in Australia

BLUE/POINT
BREWING
CO.
ESTABLISHED 1995
SPECTRAL HAZE
IMPERIAL SUNSHINE
TOASTED LAGER
HOPTICAL ILLUSION
MOSAIC IPA
RASTAFARYE ALE

SMALL GIANTS
CRACKER BITES
MADE WITH CRICKET FLOUR, ROSEMARY & THYME
MADE WITH CRICKET FLOUR, TOMATO & OREGANO
MADE WITH CRICKET FLOUR, TURMERIC & SMOKED PAPRIKA
PLANET-POSITIVE
9g
PROTEIN

PACKAGING DEVELOPMENT

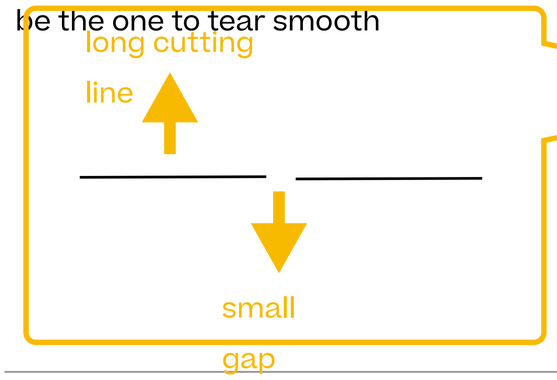
Perforation Test

– this pattern is to test out how long the cutting line (dash) and gap should be in order to make the tearing smooth

– we tested 3 different length of the cutting lines with 3 different length of gaps (the differences are significant)

– the result is that 24 pt dash with 5 pt gap is the perfect one.

– from this test we learned that longer cutting line paired with small gap would be the one to tear smooth



36 pt dash, 15 pt gap

24 pt dash, 15 pt gap

36 pt dash, 10 pt gap

24 pt dash, 10 pt gap

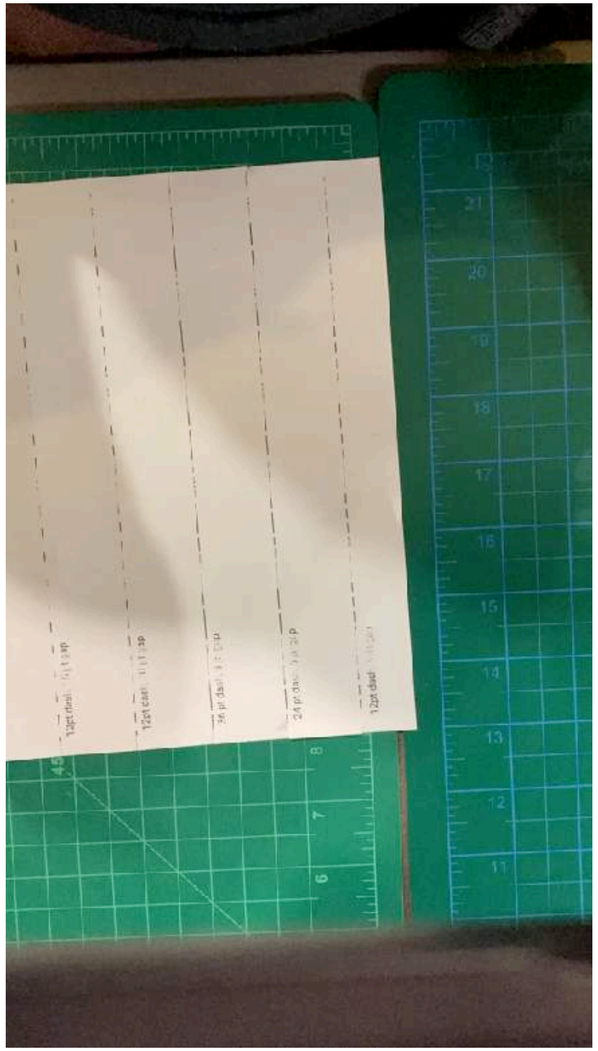
12pt dash, 15 pt gap

12pt dash, 10 pt gap

36 pt dash, 5 pt gap

24 pt dash, 5 pt gap

12pt dash, 5 pt gap



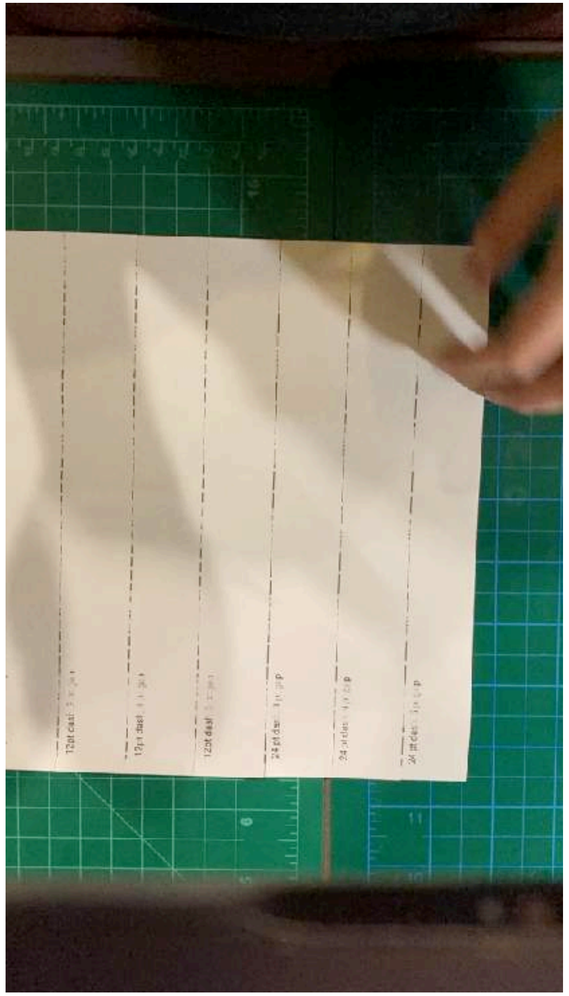
Perforation Test

- based on the last test we continued to do a more detailed and a controlled test

- this time we tested 3 different length of the cutting lines with only one point difference between gaps

- they all tear easily and smoothly

-there is not a lot difference between the length of gaps when the difference is really small



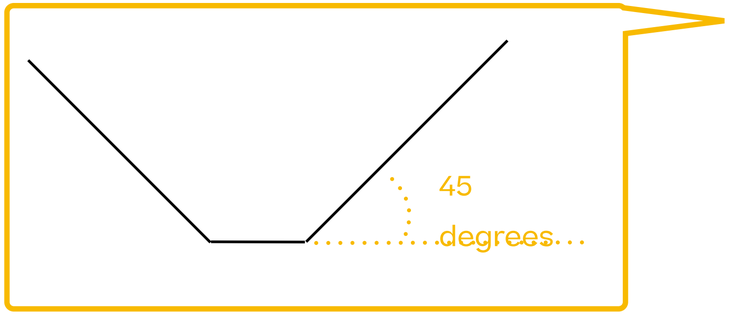
Tearing Angel Test

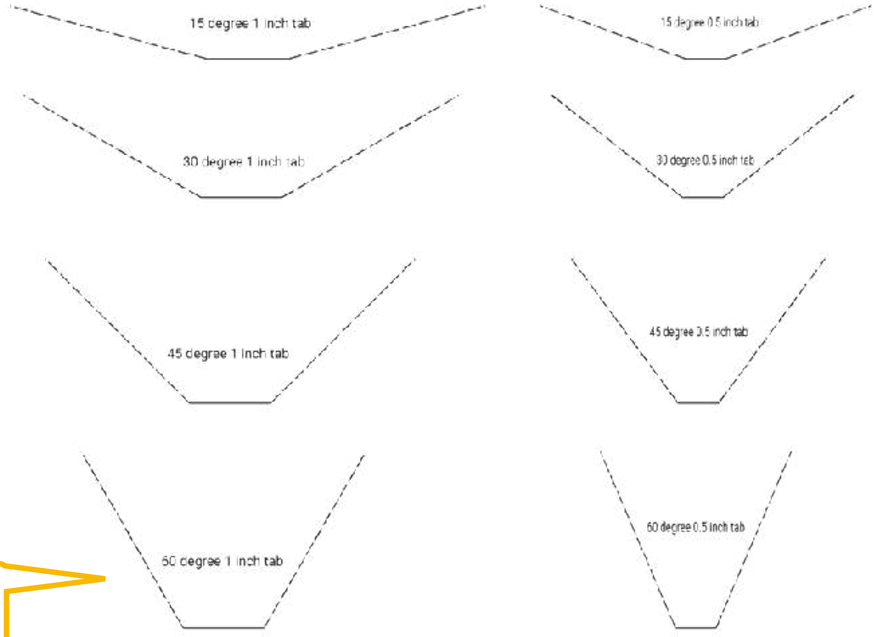
- after figuring out the perforation pattern we start to test the tearing angle for smooth opening

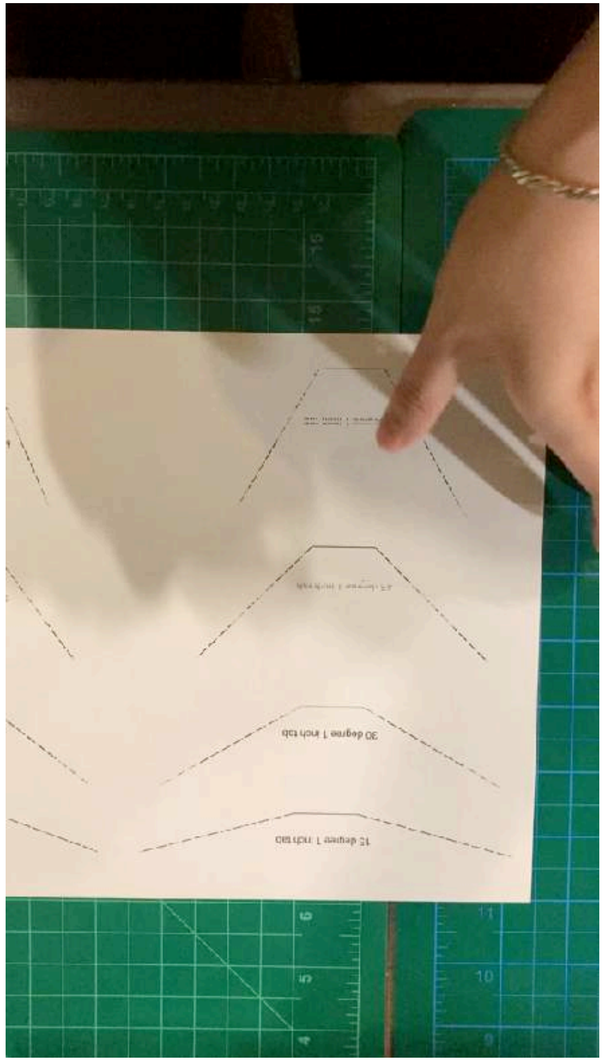
- we tested 2 different size tabs with 4 different angles

- the result is that 60 and 45 degree angles tear more smooth than others

- the size of the tab (length) does not matter so much





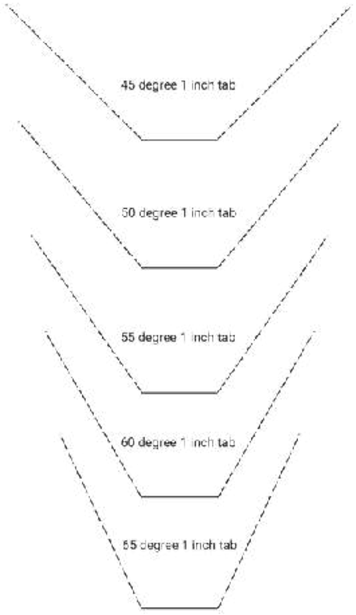


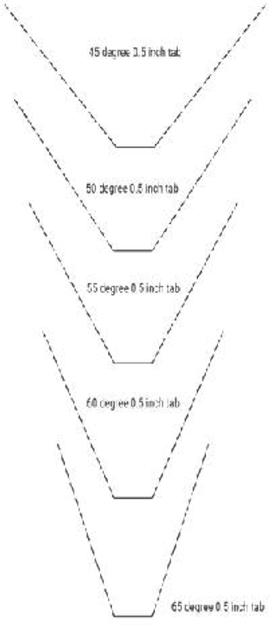
Tearing Angel Test

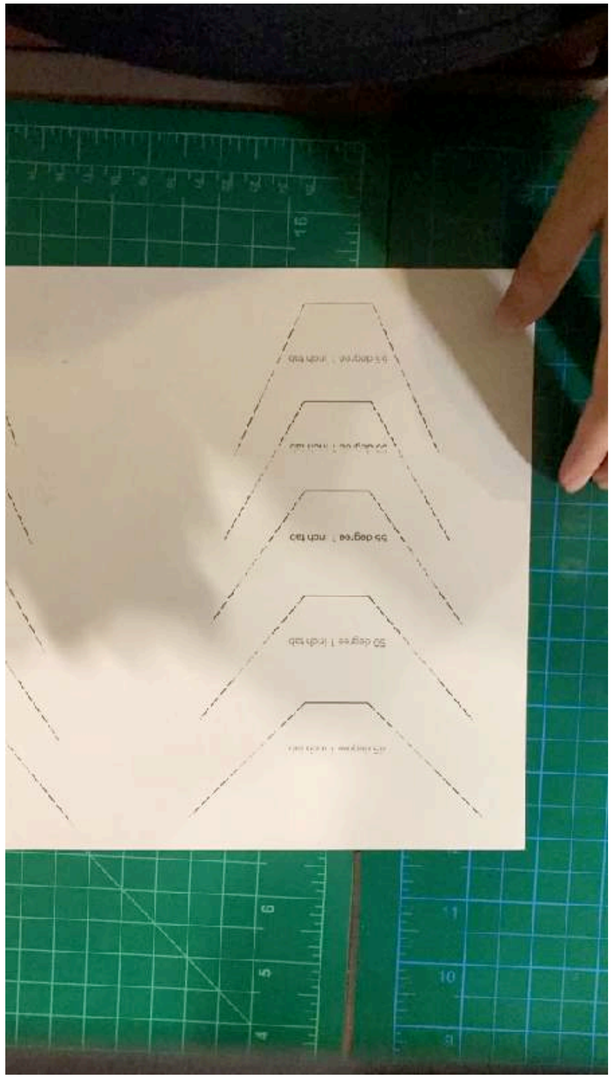
- after knowing that the angle between 45-60 degrees are more promising we did another more detailed test

- we tested two different length tab with 5 different angles between 45-65 degrees. Each angle has a 5 degrees difference

- result: between 45-60 degrees it is not guaranteed that the tearing will be smooth, paper has a tendency to tear inward and not following the pattern



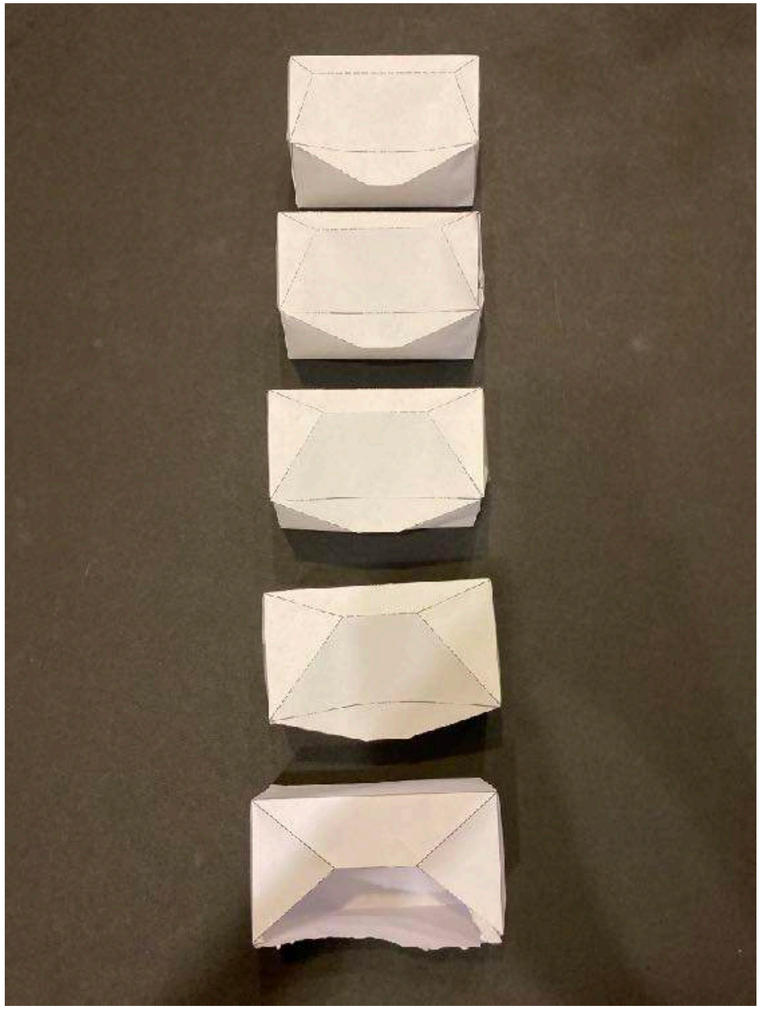




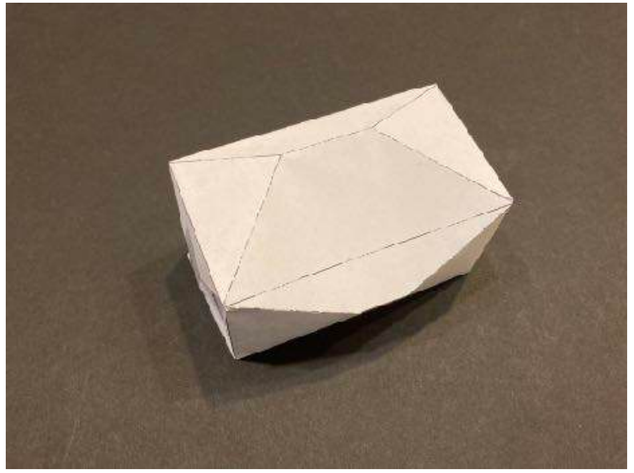
Packaging Development

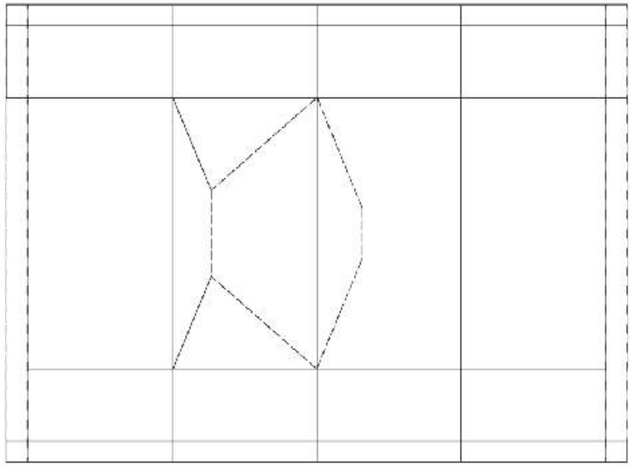
- after deciding the main form of the packaging we continue to develop the shape

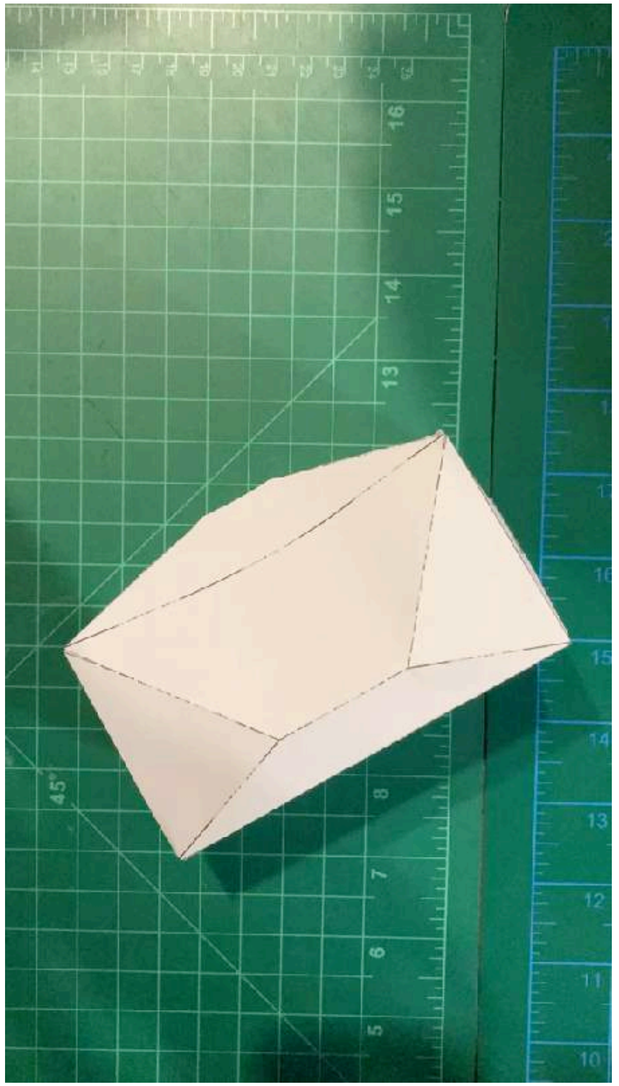
- this one is to test out how large the openings should be for people to eat without bothering by the top part



Bento Box 1







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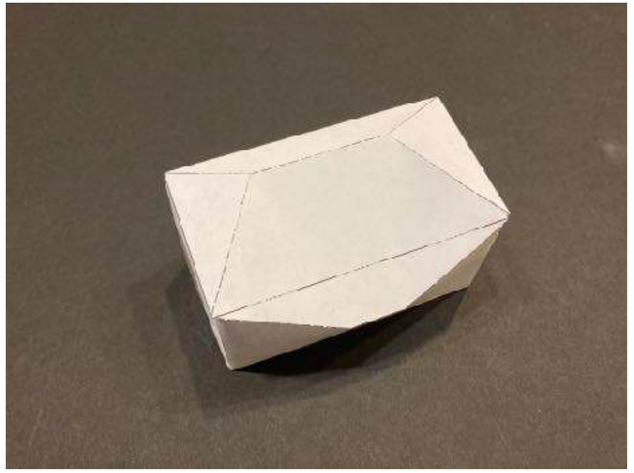
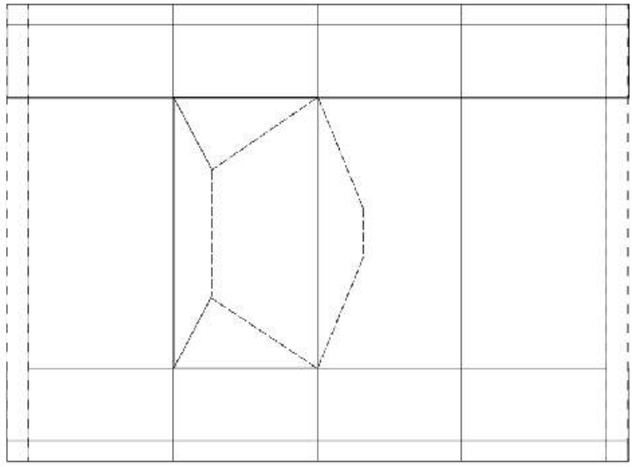
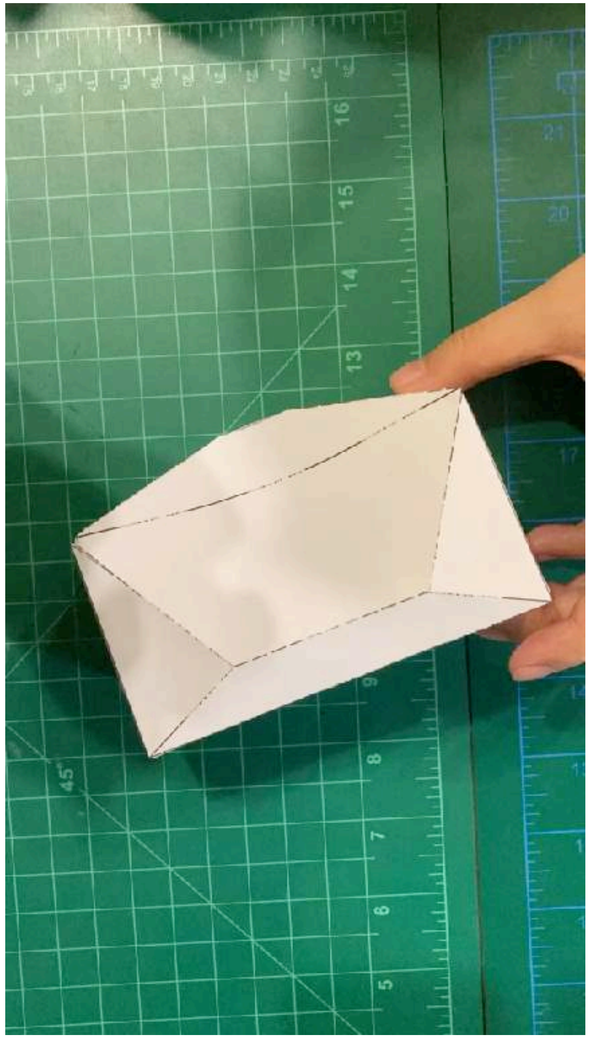
Bento Box 2







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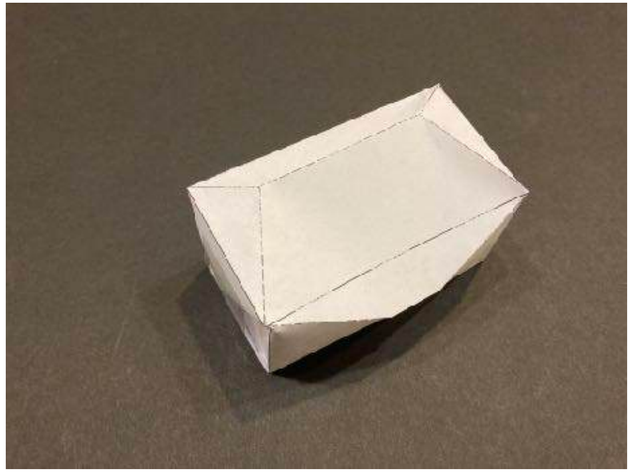
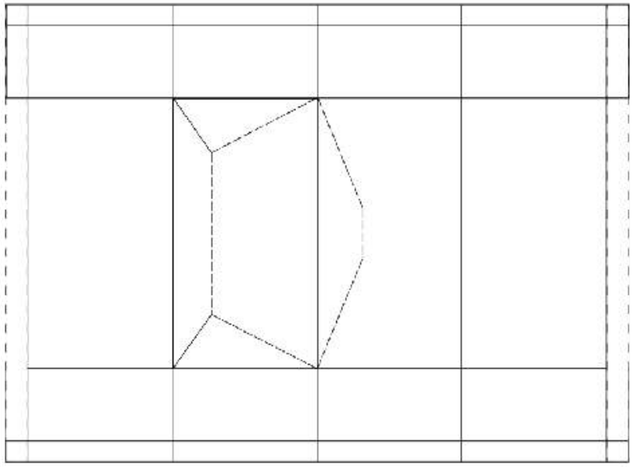
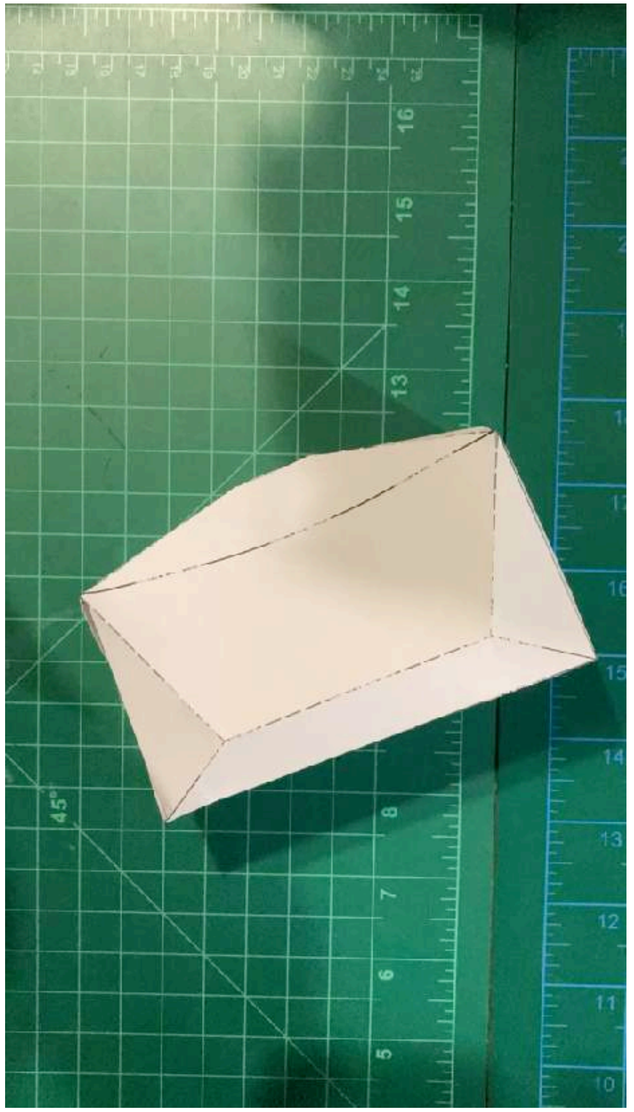
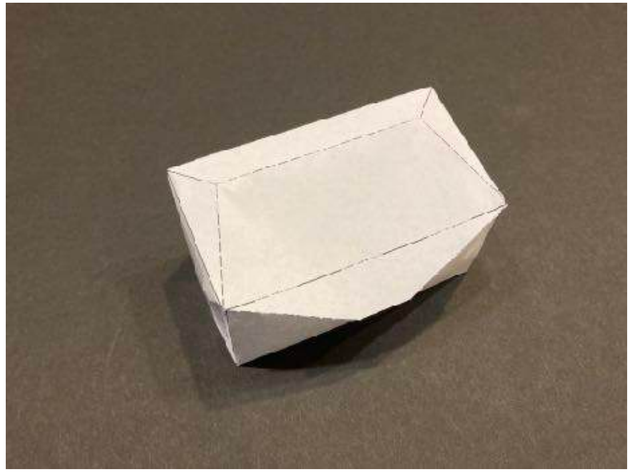
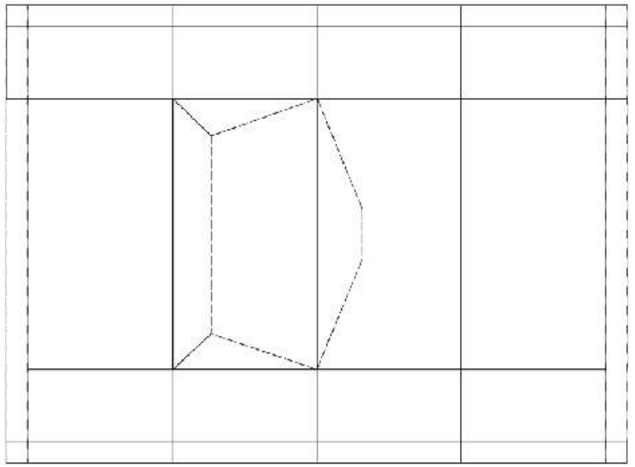


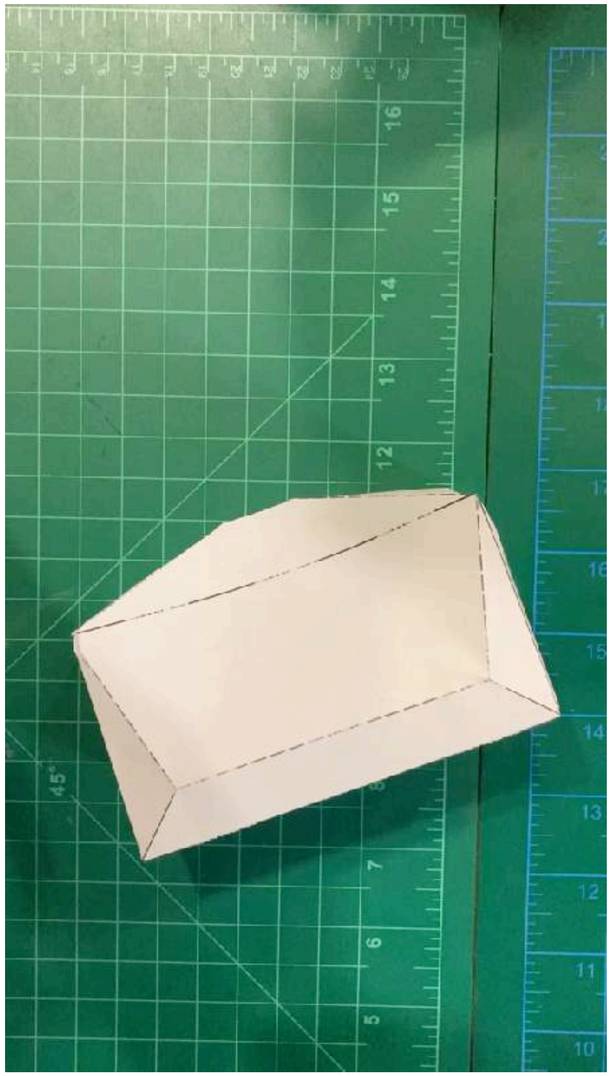




Bento Box 4







Chunky food

Food that can be poured out such as beans, corns and fruits that are cut in small pieces

Design requirements:
taller design
closure closer to edge for easier pouring
easy to control
resealable

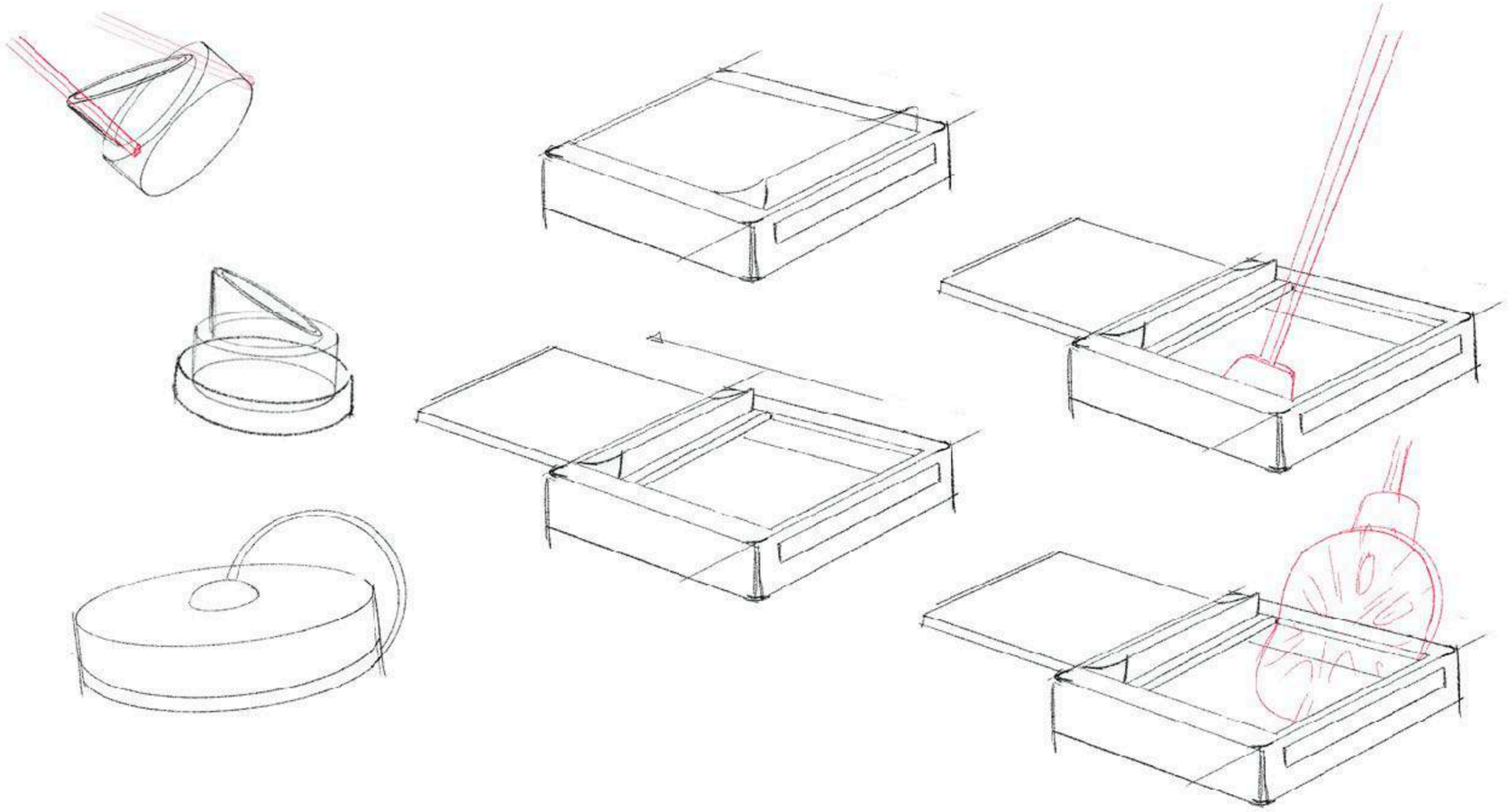
Chunky food

Food that need to be taken out with utensils such as canned carrot, pineapple and peach

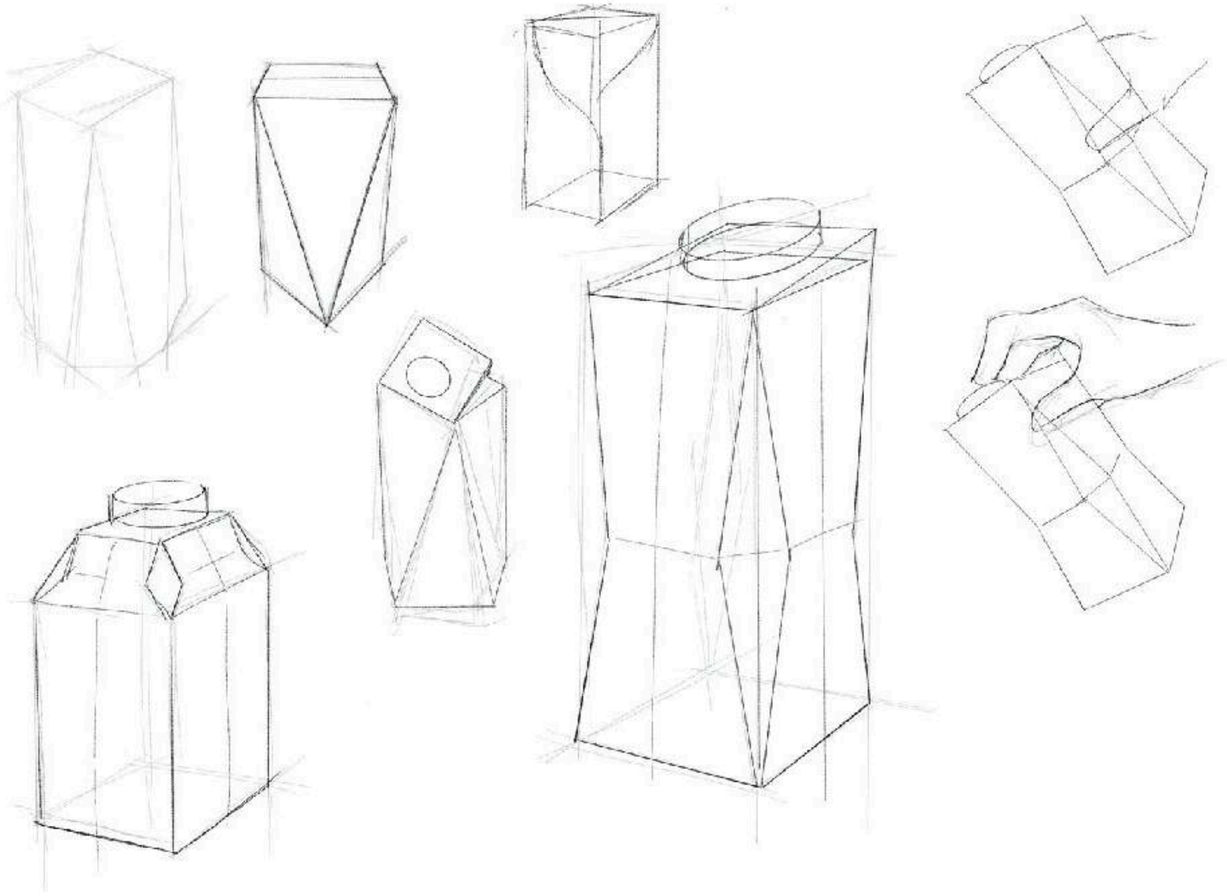
Design requirements:

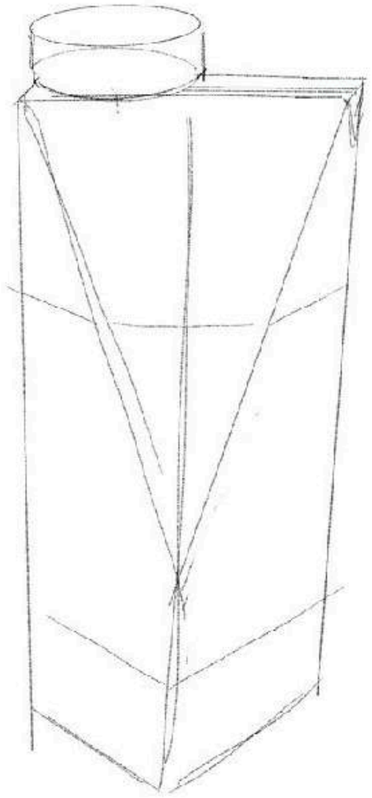
shorter design
big opening enough for utensils to get in
get rid of the extra liquid
resealable

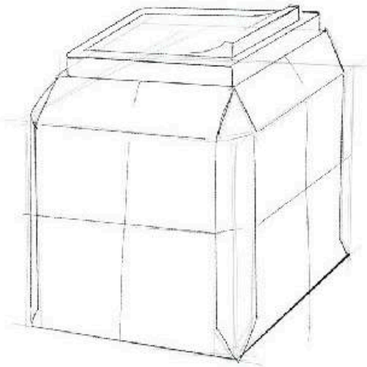
Chunky food

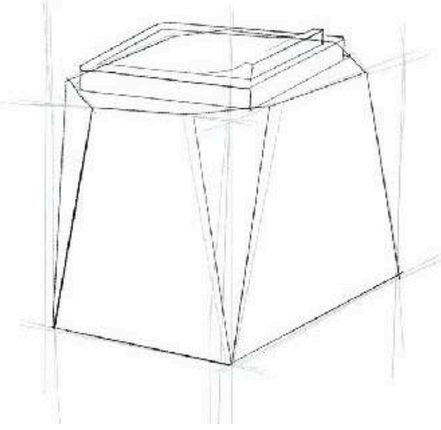


Chunky food

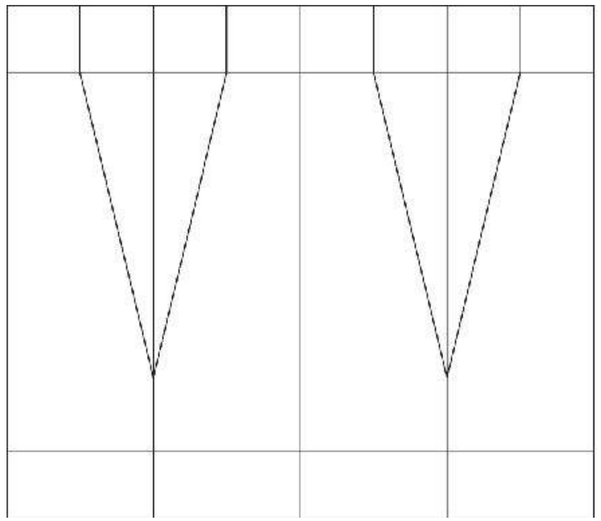








Chunky food



Closure

Food that need to be taken out with utensils such as canned carrot, pineapple and peach

Design requirements:

WEEK 11

FEEDING THE WORLD

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

01 INTERNAL GRAPHIC DESIGN

Statement

We design revolutionary aseptic cartons with distinctive functions and forms. These designs aim to help people **EAT BETTER** in both short way and long way.

Our “ready to eat” microwavable, utensil embedded carton plays a significant role in emergent disaster relief. We also design cartons and closures based on different food textures to provide fresh, nutritional food for worldwide eaters.

Infographics

Front

1. Tagline
2. Product name
3. Icon and texture that indicate the type of food
4. Perforation lines

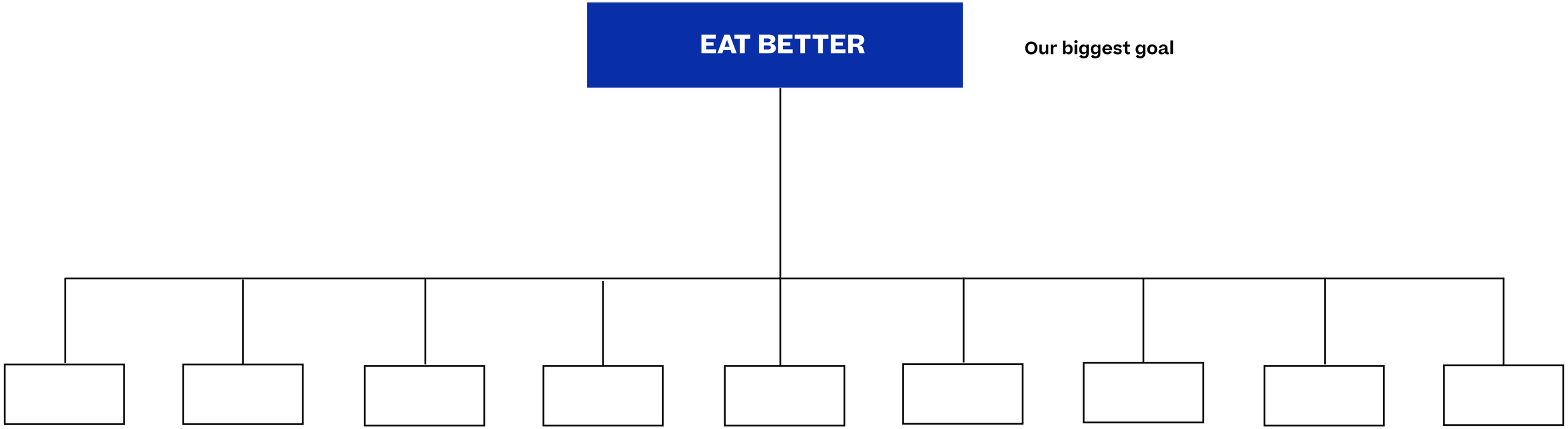
Back

1. Texture that indicates the type of food
2. Benefits of the design(for SIG): functional innovation

Side

1. Design purpose: help the world in A.short term and B. long term
2. Background story: user scenario
3. User manual: steps of opening

Front: Tagline and name



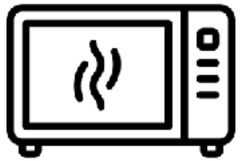
Our biggest goal

The names show the key feature of each design.

Front: icon

Ready to eat

Microwavable



Utensil embedded

Creamy food

Chunky food

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Front: texture

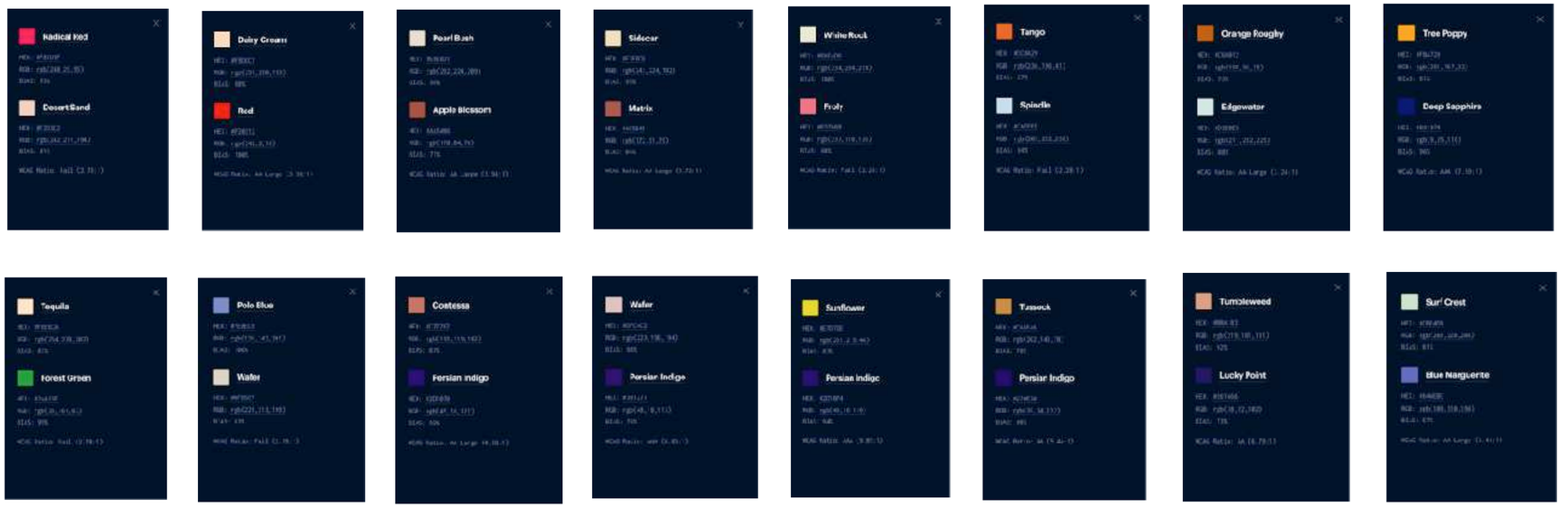
Ready to eat

Creamy food

Chunky food

Color palette

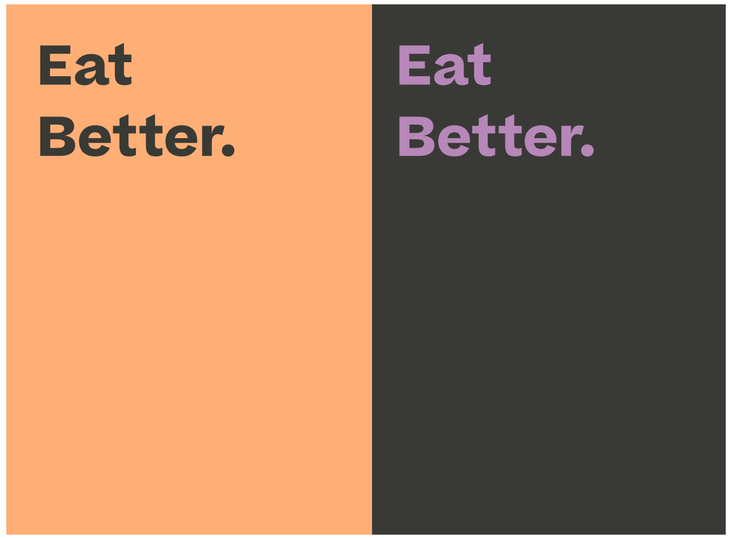
Keywords: Appetizing, fresh & healthy, energetic, warm-hearted



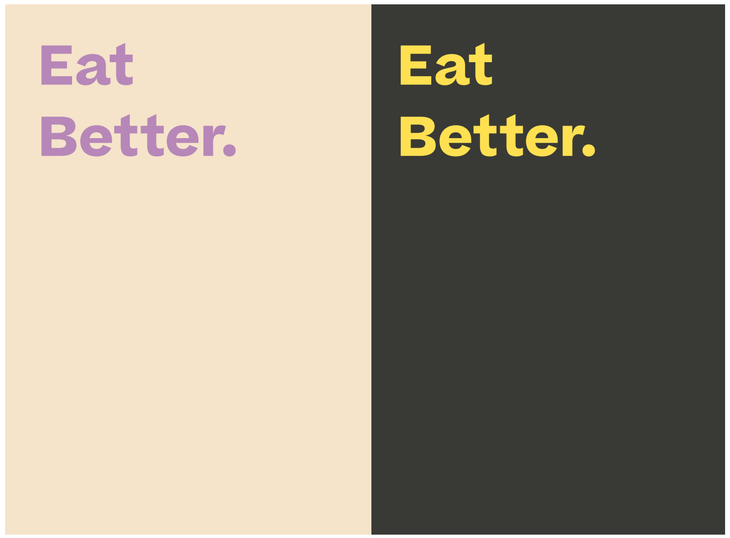
Color palette (1)

Ready to eat

Creamy food



Chunky food



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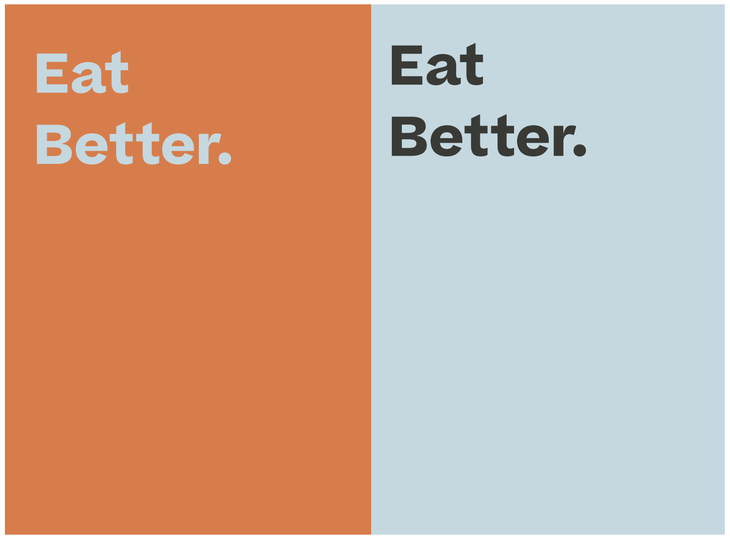
Color palette (2)

Ready to eat

Creamy food

Chunky food

Ready to eat

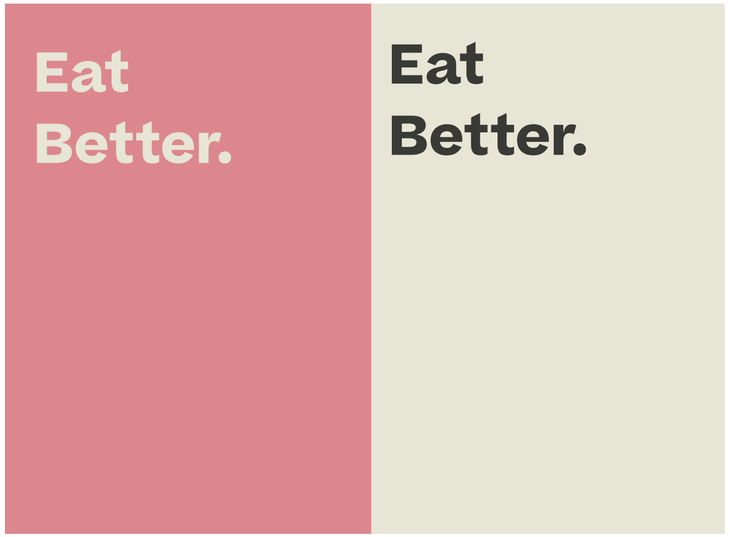


Creamy food

Chunky food

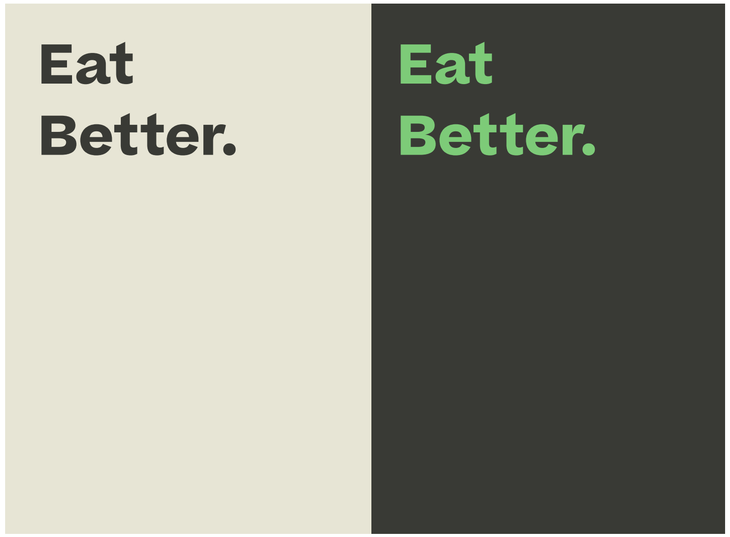
Color palette (3)

Ready to eat



Creamy food

Chunky food



Typography

Keywords: fun, tender, pioneering, vital, clear, illustrative

Tagline and titles:
Beatrice bold

Eat Better.

Body copy:
Beatrice regular

We design revolutionary aseptic cartons with distinctive functions and forms. These designs aim to help people EAT BETTER in both short way and long way.

Our “ready to eat” microwavable, utensil embedded carton plays a significant role in emergent disaster relief. We also design cartons and closures based on different food textures to provide fresh, nutritional food for worldwide eaters.

Back: design innovation

Ready to eat

- Special form
- Special angled perforation lines
- Integrated design
- Foldable utensils embedded

Creamy food

- Special form and closure
- Closure are closer to edges for easier pouring
- Resealable
- Taller design, easy to handle

Chunky food

- Special form and closure
- Opening is big enough to put utensils in
- Resealable
- Shorter carton
- Get rid of the extra liquid

Side: design purpose

FEED THE WORLD IN SHORT TERM

Ready to eat

- Container of emergency food
- Disaster relief assistance
- Microwavable, very convenient
- Time and cost saving

LONG TERM

Creamy food

Chunky food

- Work as nutritional supplements
- Fresh food, long preservation
- Help with seasonal hunger
- Time-saving

Side: background story

Earthquake

Flood

Hurricane

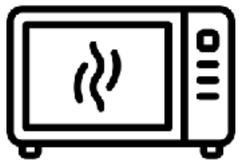
Storm

Volcano

World problem

Side: user manual

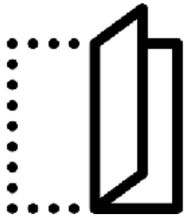
Microwavable



Squeeze

Tear off

Fold



Easy open

02 EXTERNAL GRAPHIC DESIGN

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1st direction for ready to eat

Charitable collaboration

- Imagine this Campbell's soup is contained in a SIG carton.

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2nd direction for all kinds of products: commercial

02 FORM REFINEMENT

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

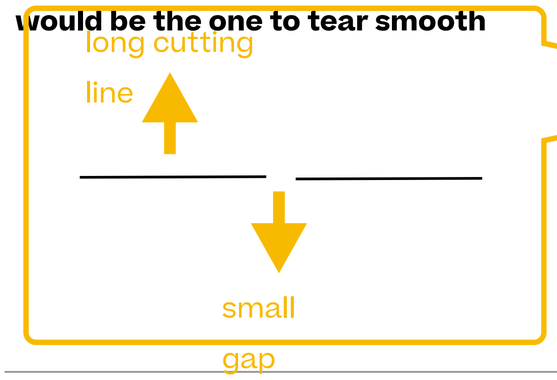
Perforation Test

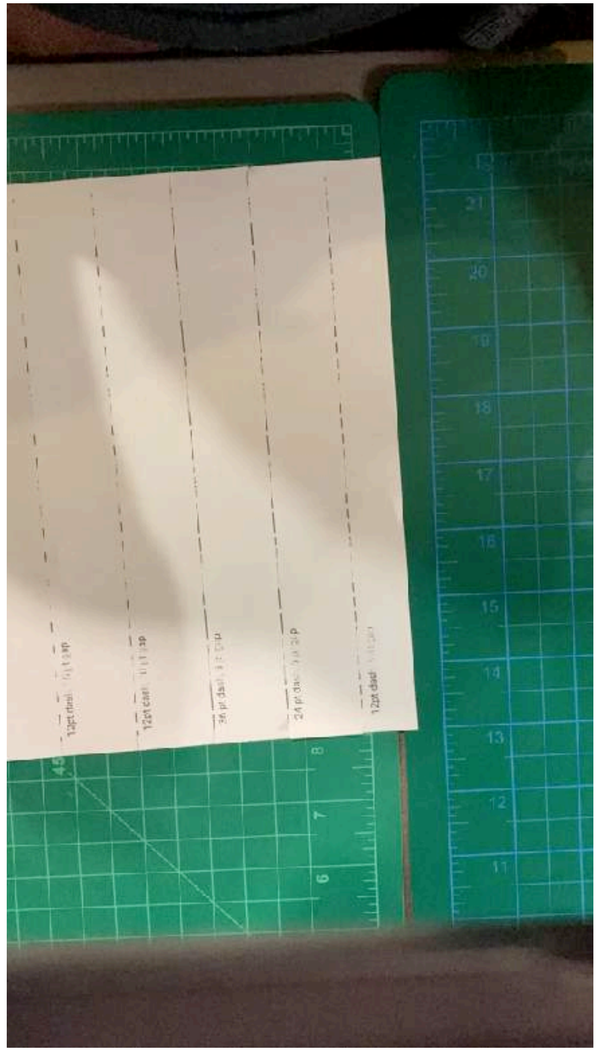
– this pattern is to test out how long the cutting line (dash) and gap should be in order to make the tearing smooth

– we tested 3 different length of the cutting lines with 3 different length of gaps (the differences are significant)

– the result is that 24 pt dash with 5 pt gap is the perfect one.

– from this test we learned that **longer cutting line paired with small gap would be the one to tear smooth**





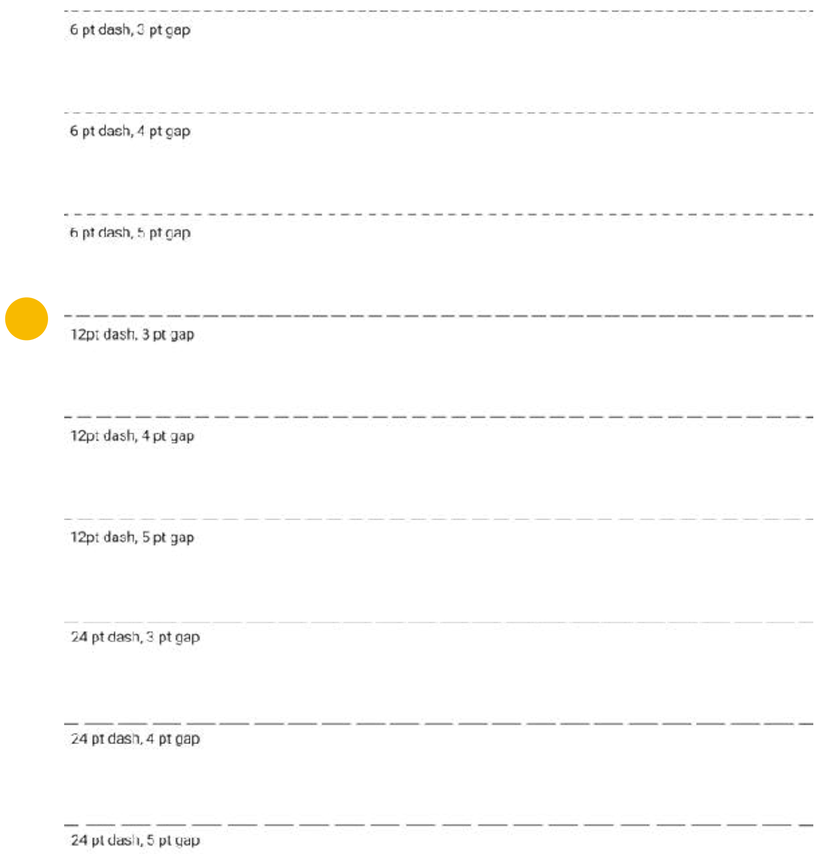
Perforation Test

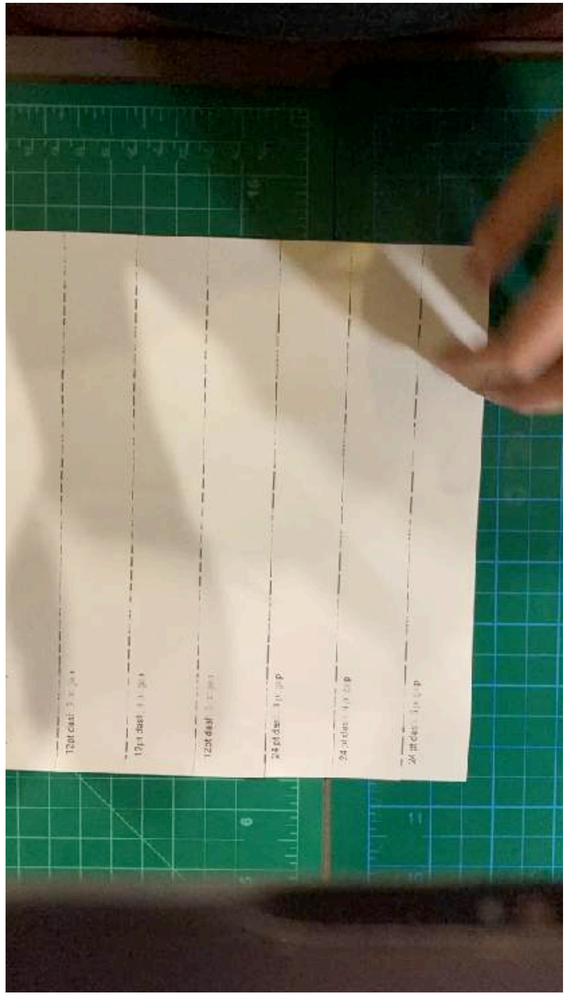
- based on the last test we continued to do a more detailed and a controlled test

- this time we tested 3 different length of the cutting lines with only one point difference between gaps

- they **all tear easily and smoothly**

-there is **not a lot difference** between the length of gaps when the difference is really small





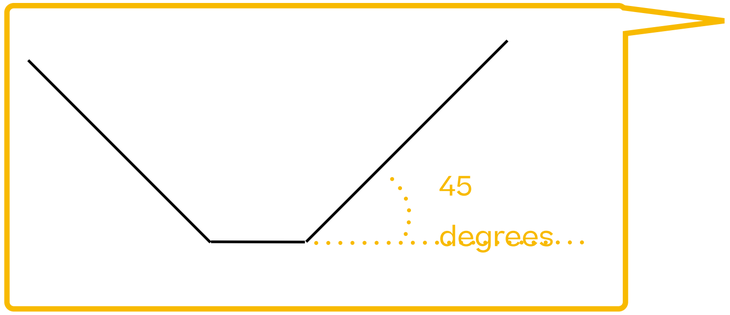
Tearing Angel Test (15-60 degree, 2 tab sizes)

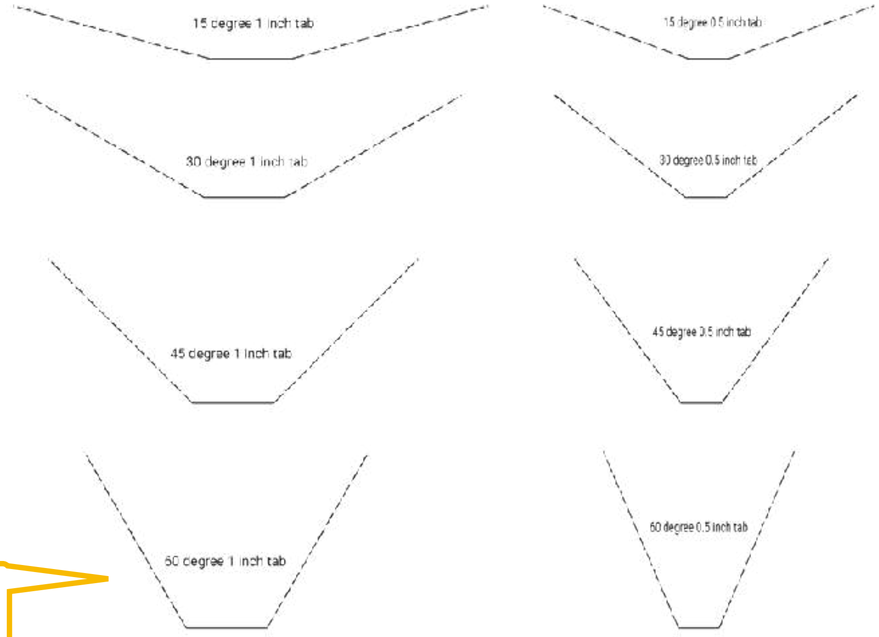
- after figuring out the perforation pattern we start to test the tearing angle for smooth opening

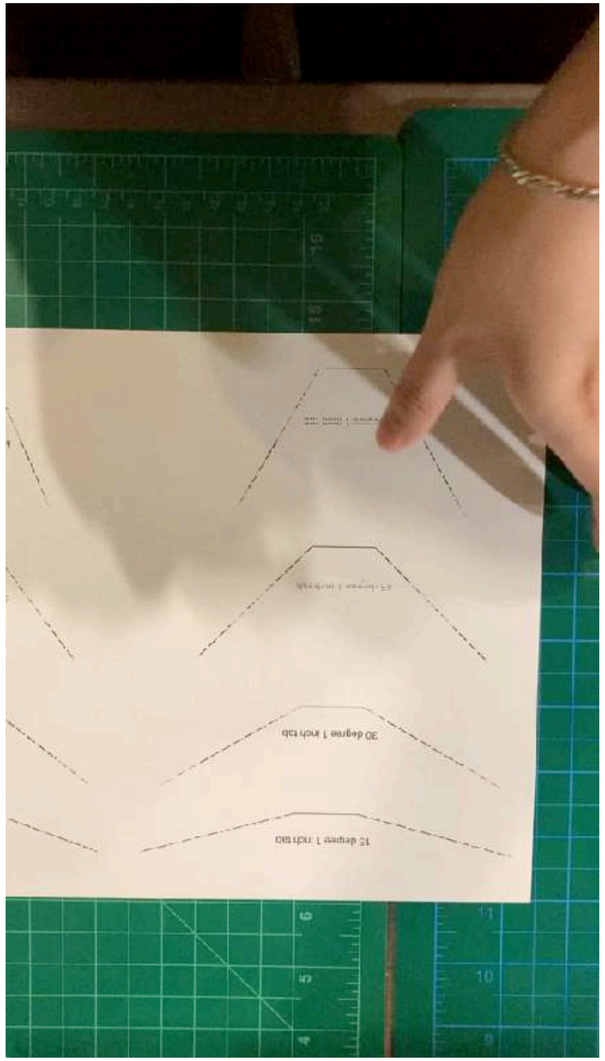
- we tested 2 different size tabs with 4 different angles

- the result is that **60 and 45 degree** angles tear more smooth than others

- **the size of the tab (length) does not matter so much**





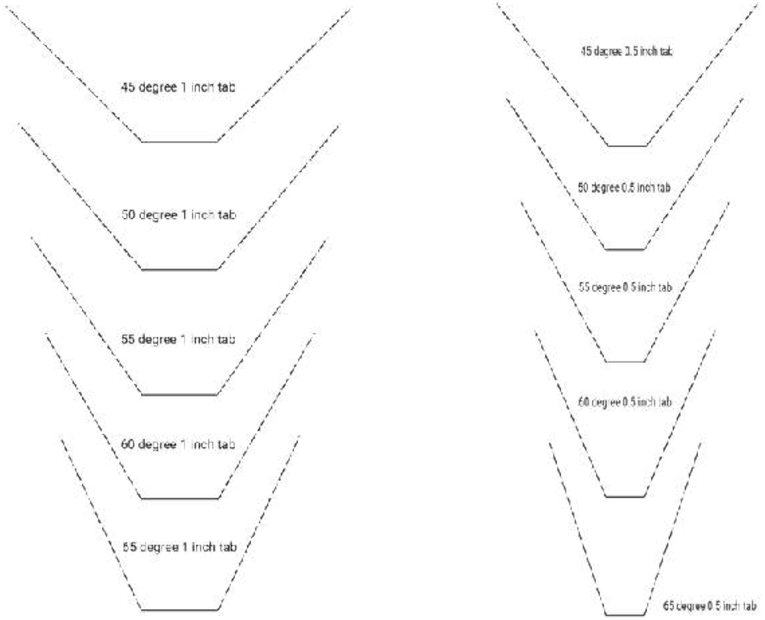


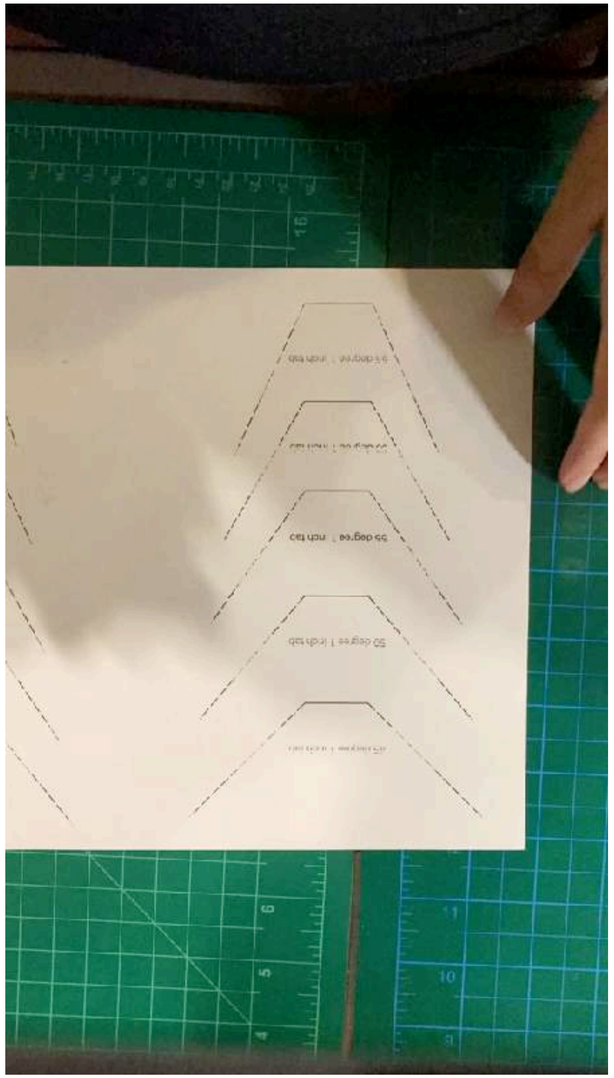
Tearing Angel Test (45-65 degree, 1 tab sizes)

- after knowing that the angle between 45-60 degrees are more promising we did another more detailed test

- we tested two different length tab with 5 different angles between 45-65 degrees. Each angle has a 5 degrees difference

- result: between 45-60 degrees it is **not guaranteed** that the tearing will be smooth, **paper has a tendency to tear inward** and not following the pattern



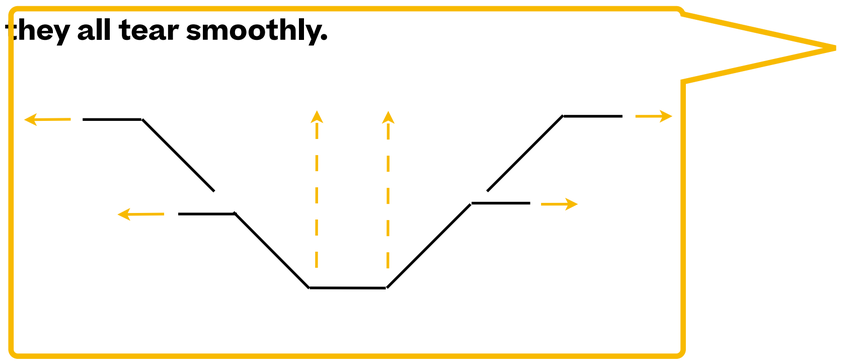


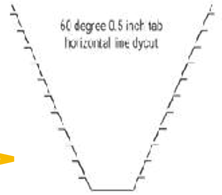
Tearing Angel Test (15-60 degree, 1 tab sizes)

- in order to make the tearing experience more smooth. We went back one step to rethink about the cutting pattern.

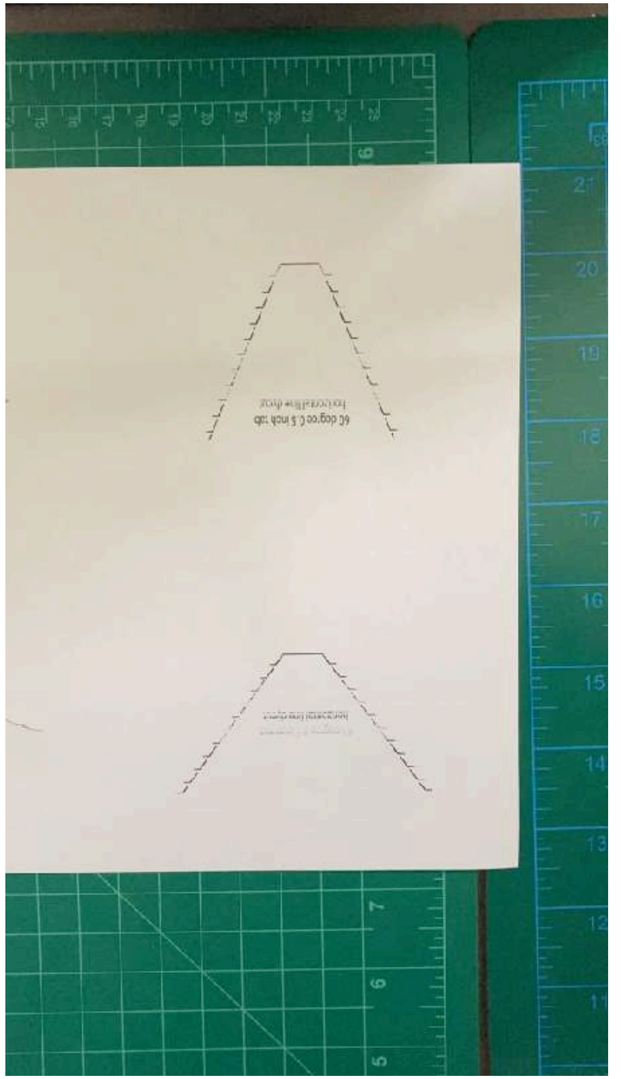
- learned from the previous tests we knew that paper has tendency to tear inward when the angles are less than 90 degrees.

- by adding a horizontal cutting line going outward could force the paper to tear outward and following the pattern. And **they all tear smoothly.**





dycut pattern test



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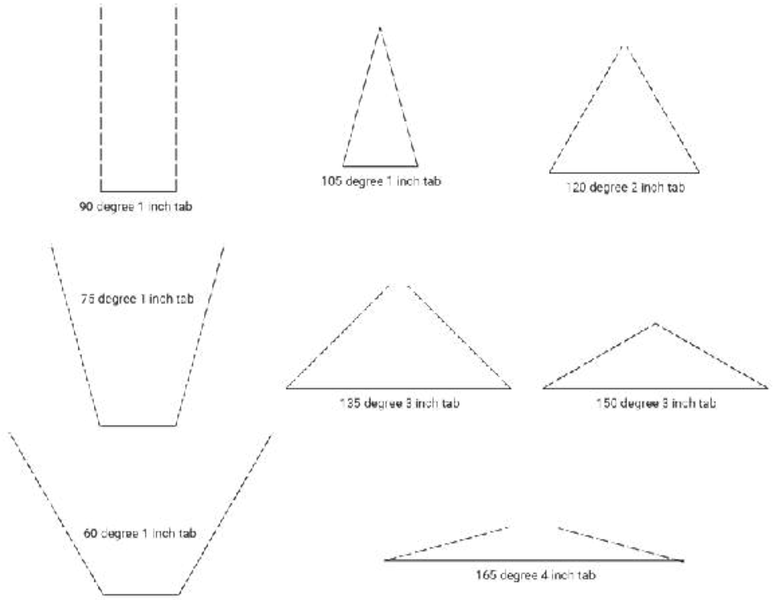
Tearing Angel Test (165-60 degree, 4 tab sizes)

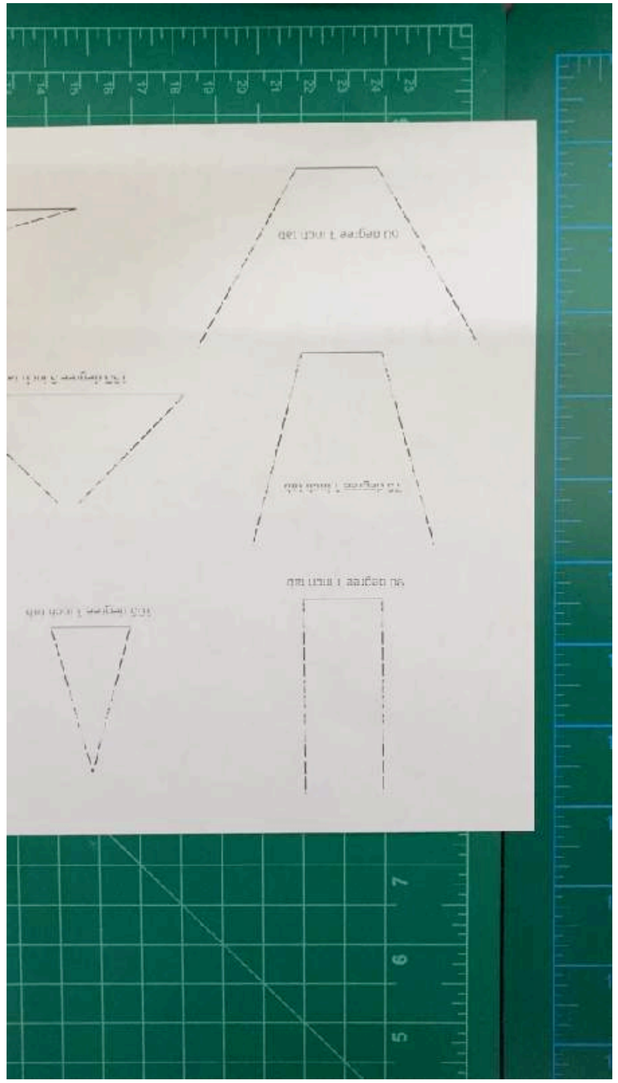


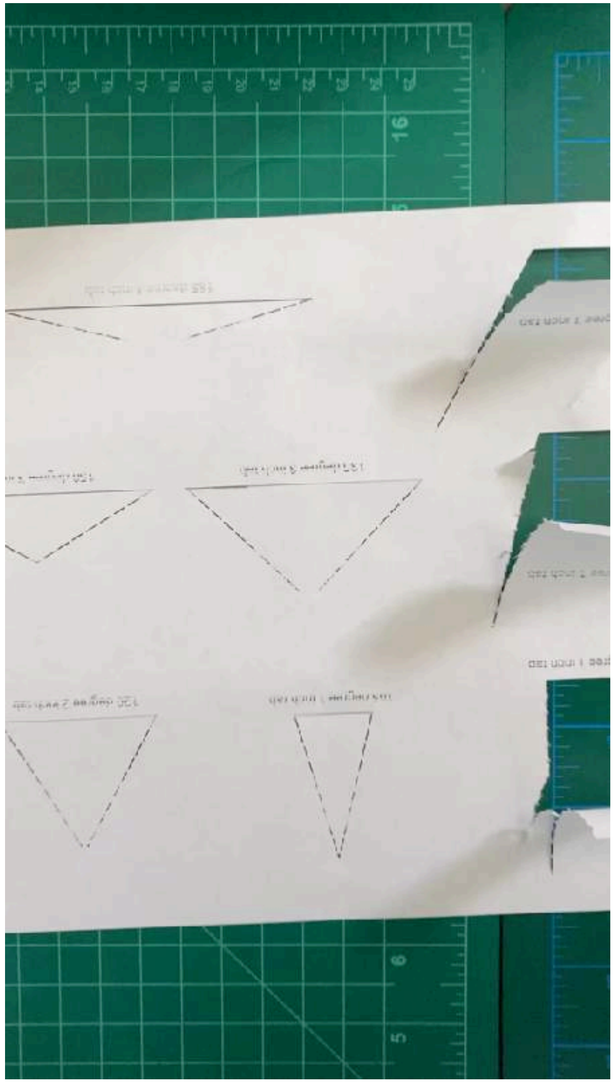
- this pattern is to test out when the cutting line is going inward whether it will tear smoothly

- we tested angle between 60-165 degrees with a 15 degree difference between two patterns. the tab size is to make sure the cutting lines are not going to cross each other.

- result: **paper have a tendency to tear outward** and not following the pattern

Tearing angle test 1+2



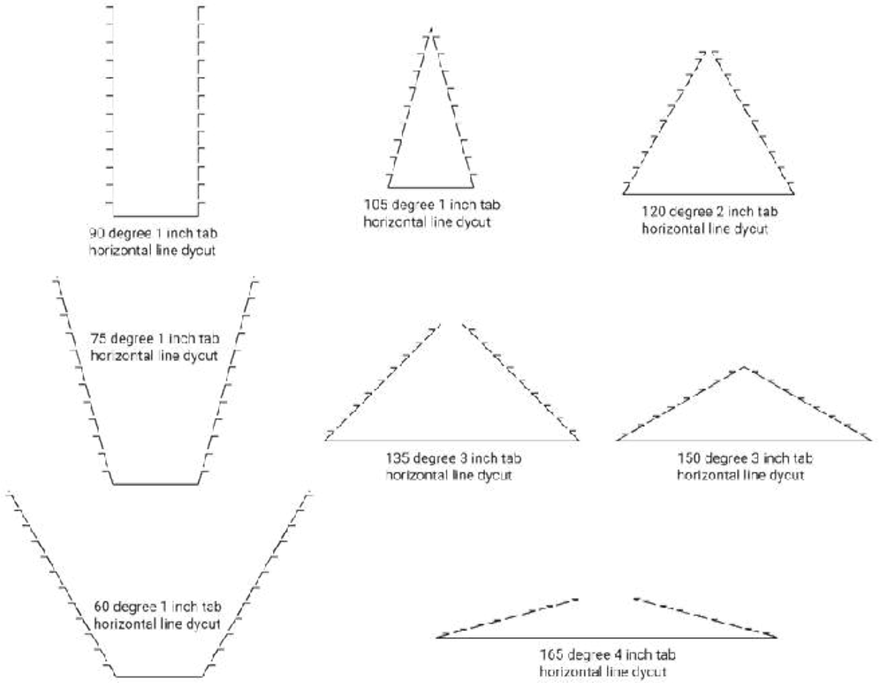


Tearing Angel Test (165-60 degree, 4 tab sizes)

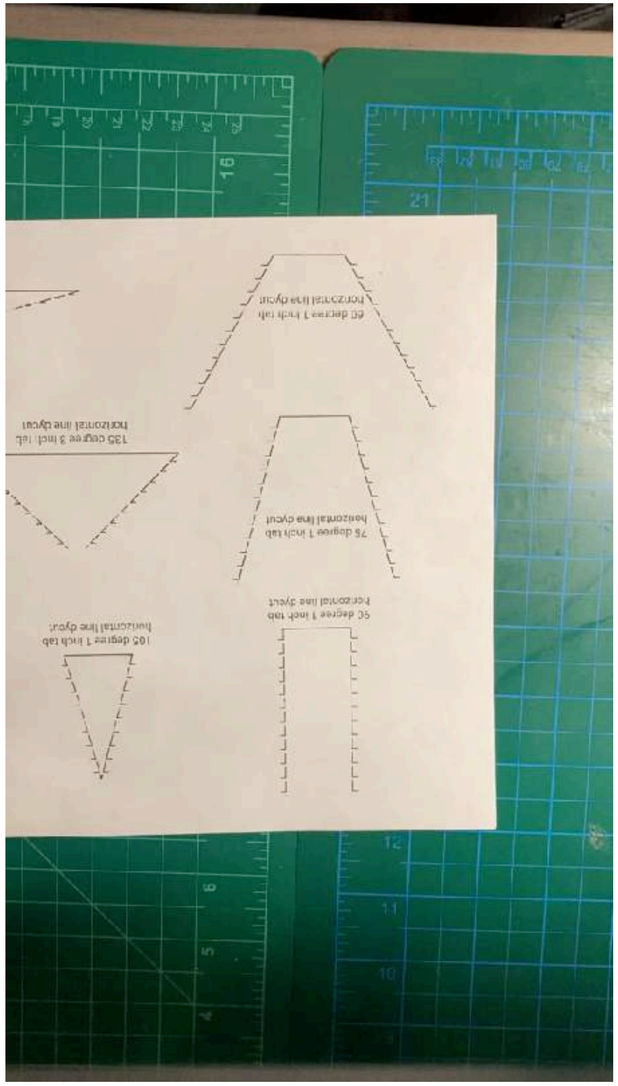
- this test is to test out whether the same pattern found above work when the tearing angle goes larger than 90 degrees

- it turns out it does not work when the angle is larger than 90 degrees and going inward. Even the size between 60-90 does not work so well.

- it might because of the paper is too thin and does not have structure. Also, when the cutting line is going inward the paper has tendency to tear outward, so having cutting line force paper to go outward does not work.



inward thin paper tearing

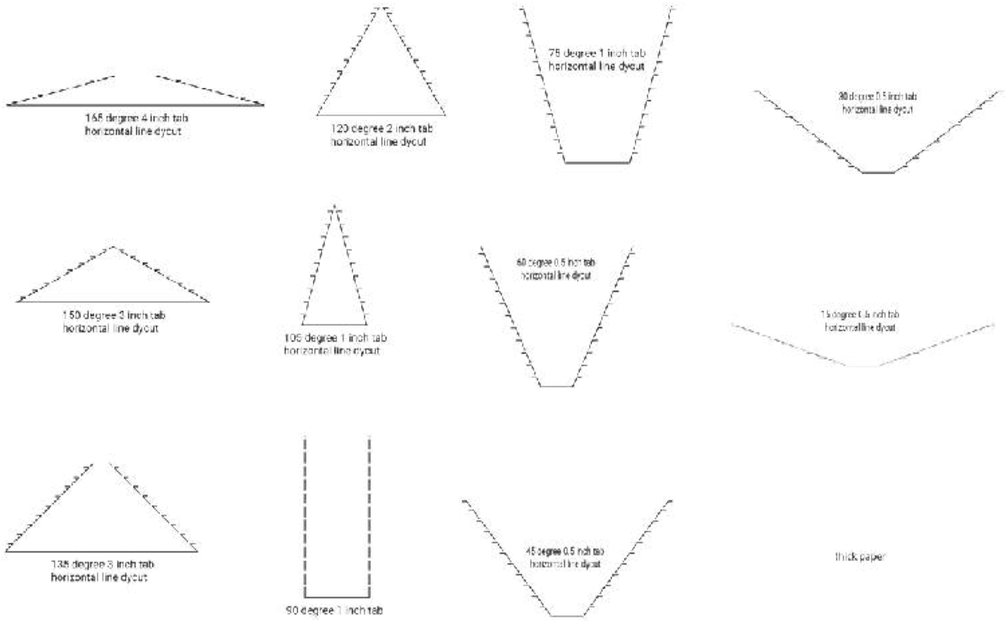


Tearing Angel Test (15-165 degree, 5 tab sizes)

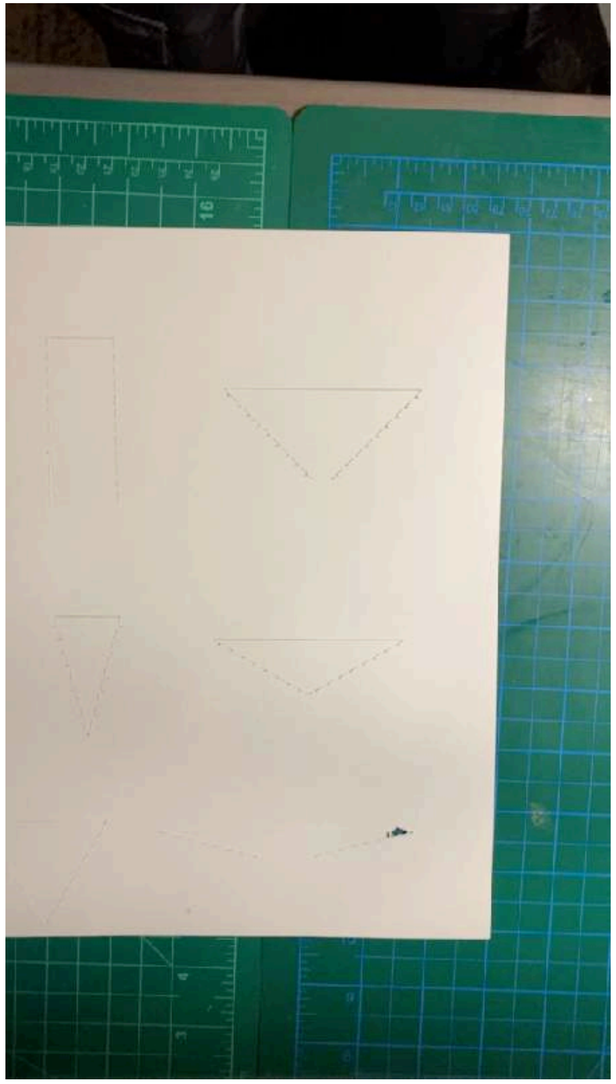
- this test is to test out whether the pattern work with thick paper which is the same thickness as SIG's carton

- the angle between 15-90 works well

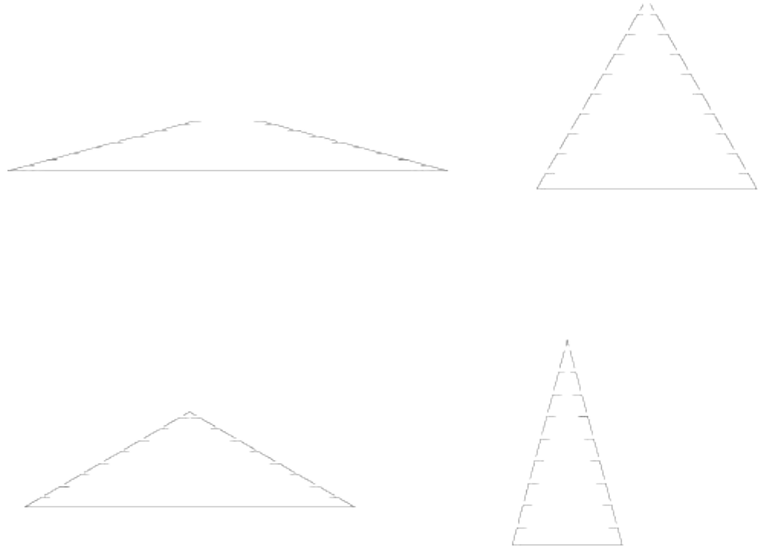
- the angle between 105-165 does not work



Overall angle tearing

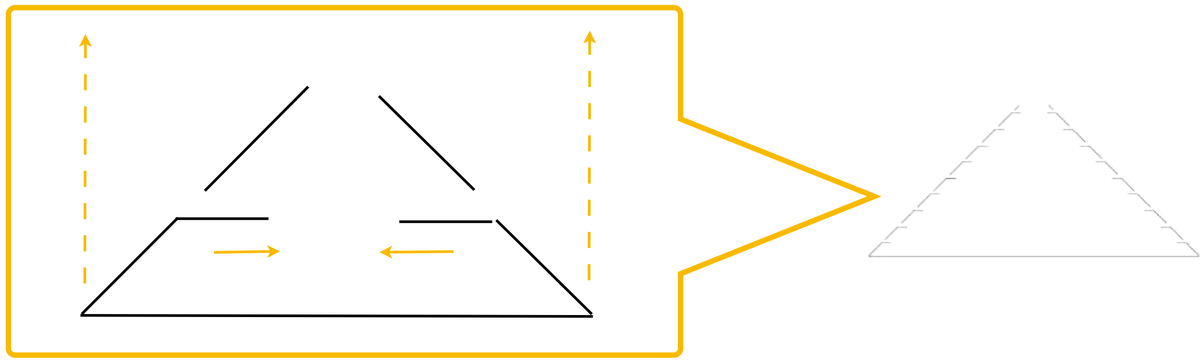


Tearing Angel Test (105-165 degree, 4 tab sizes)

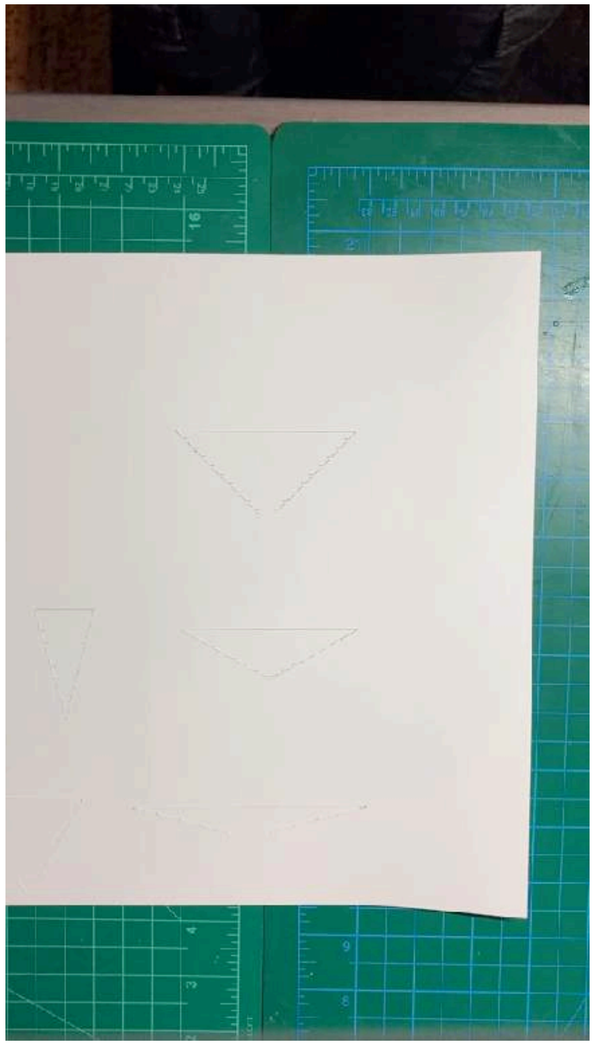


- after changing the horizontal cutting line to inward the tearing works a lot better than before

- the tearing is not as smooth as the angle smaller than 90 degrees. It might because of the angle of the cutting line.



inward tearing

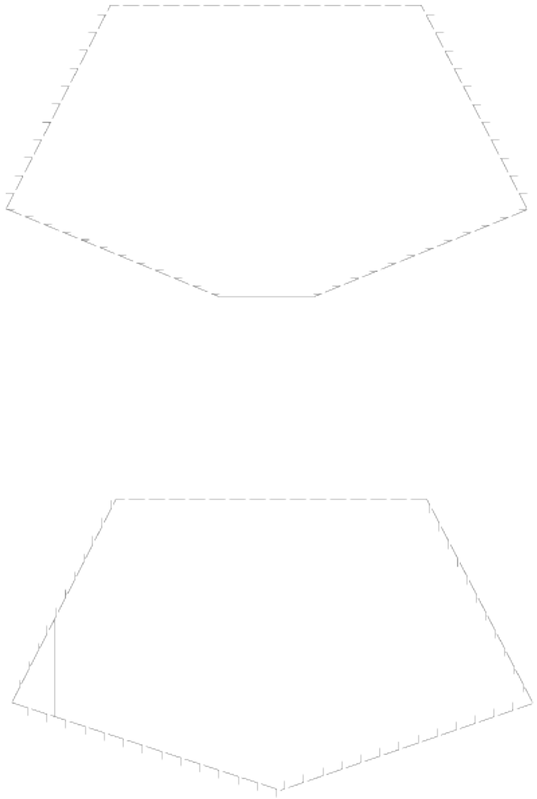


Box Top Tearing Test

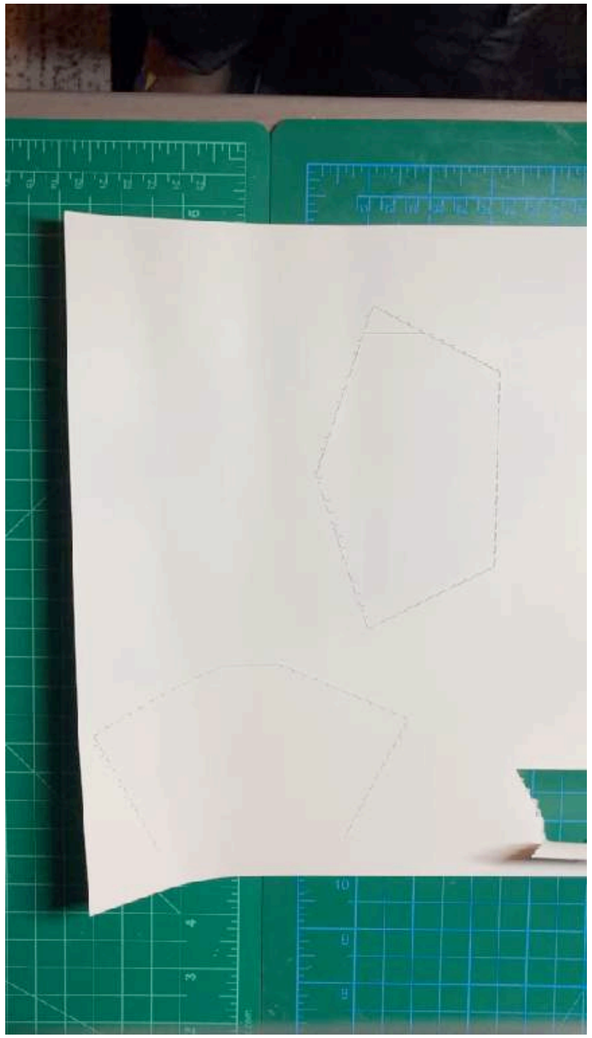
- combined two different cutting patterns into one and apply it onto the tearing part of the box to test

- the original location of the tab make the whole piece very hard to tear off even after all those tearing test.

- another direction is to change the tearing tab and it makes it a lot easier to tear



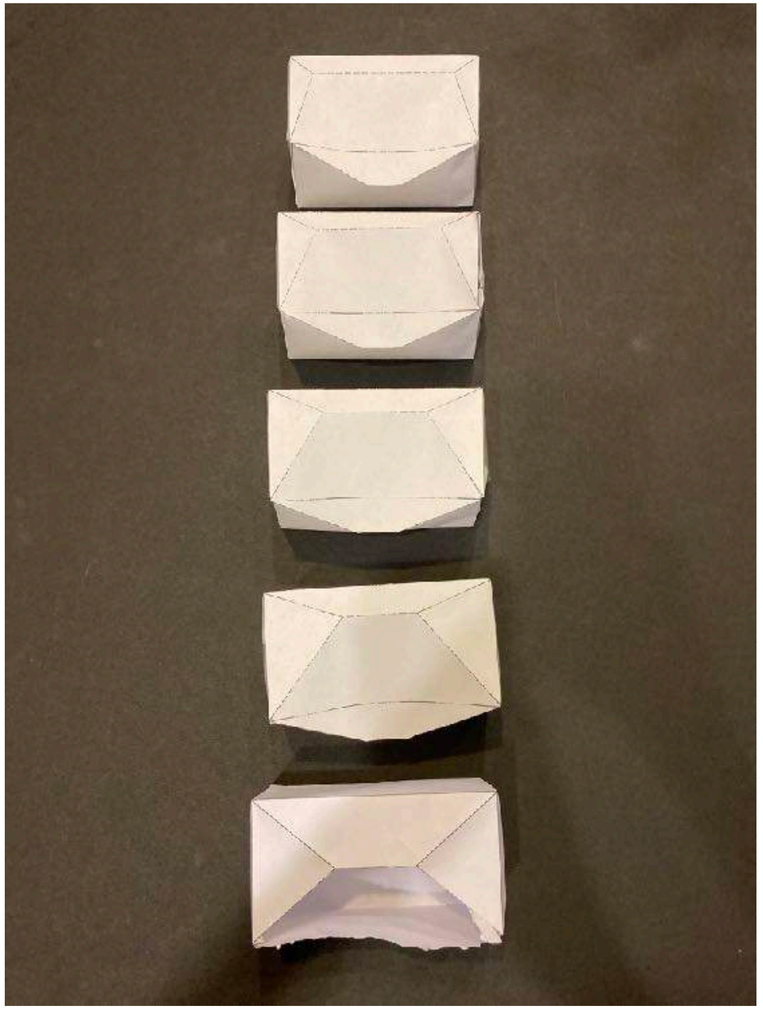
box top tearing



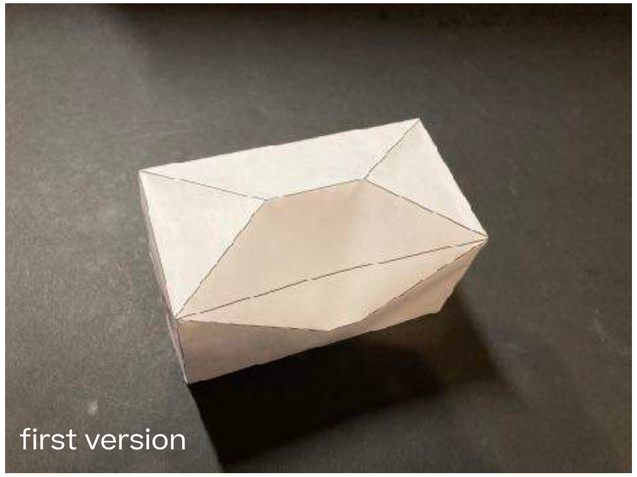
Packaging Development

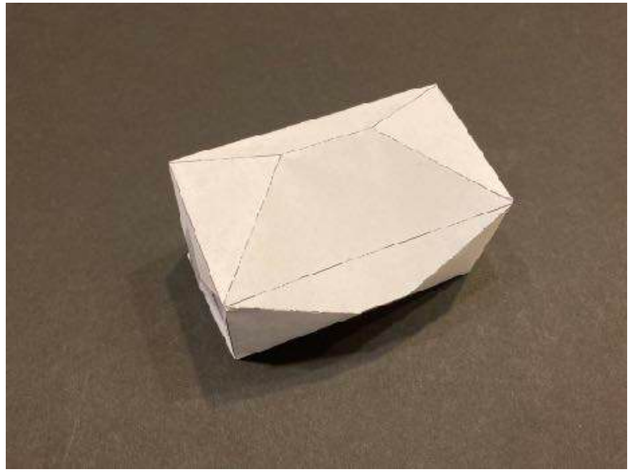
- after deciding the main form of the packaging we continue to develop the shape

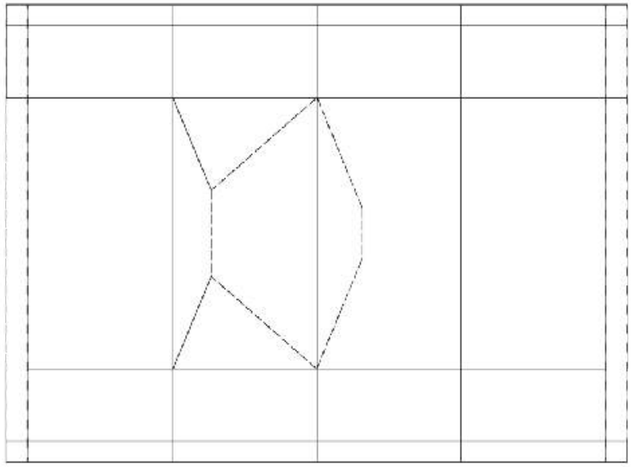
- this one is to test out how large the openings should be for people to eat without bothering by the top part

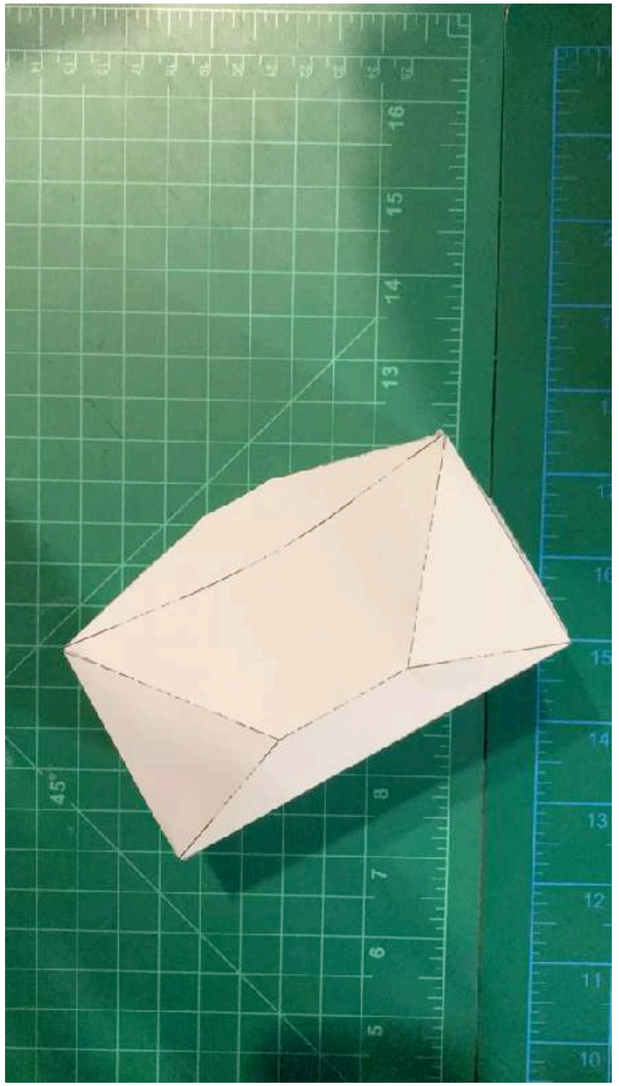


Bento Box 1



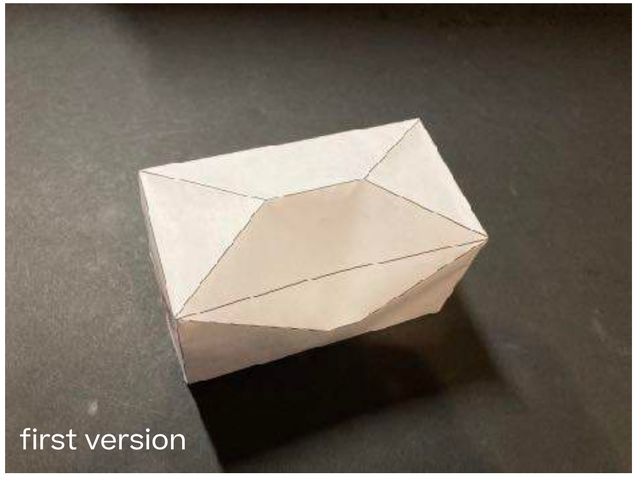


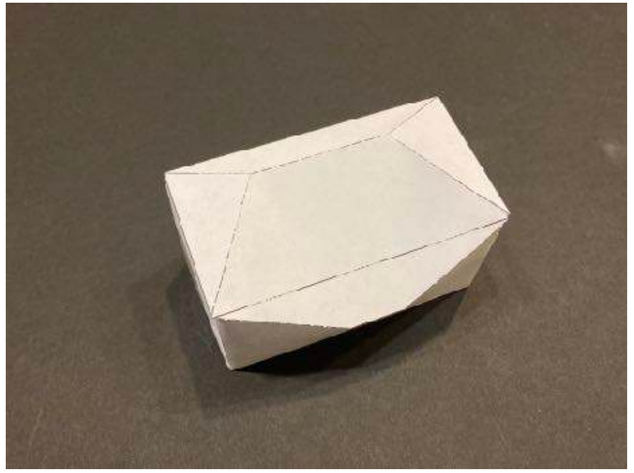


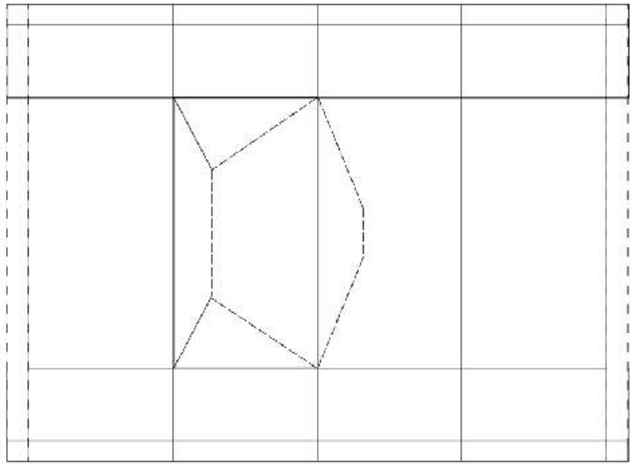


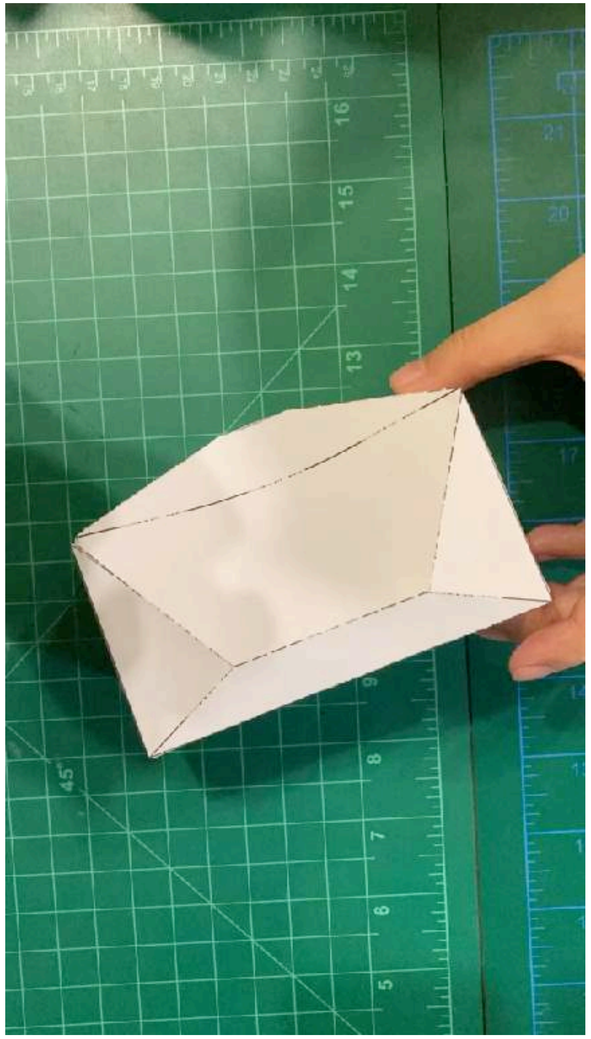
– this one pushed the top further back to make the opening larger

Bento Box 2



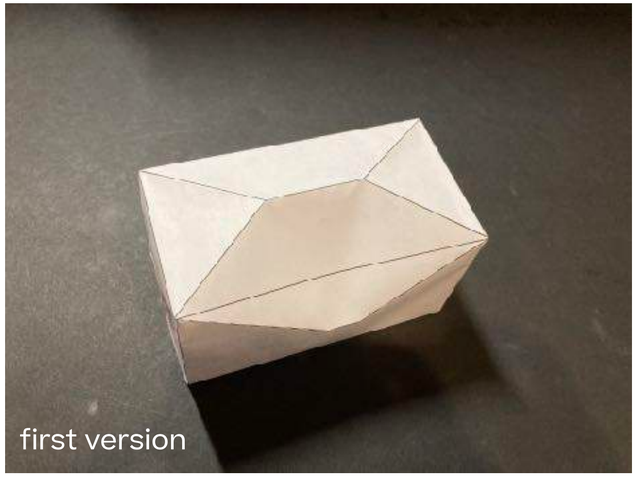


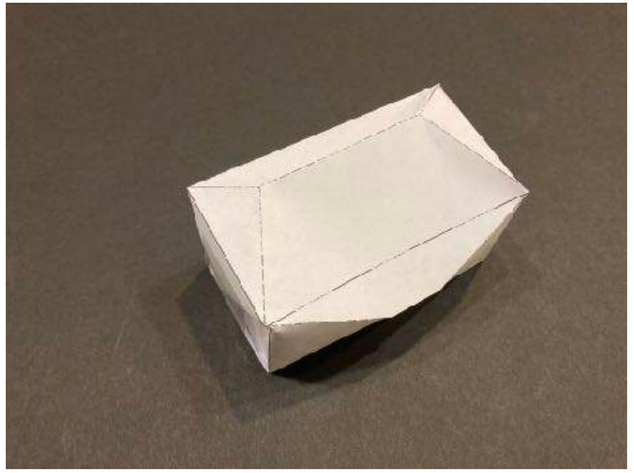


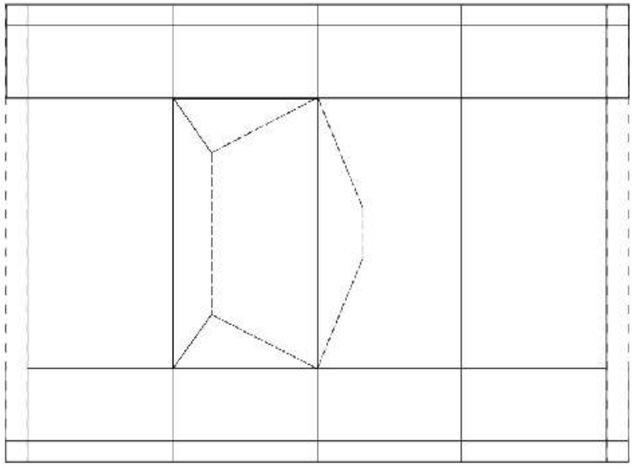


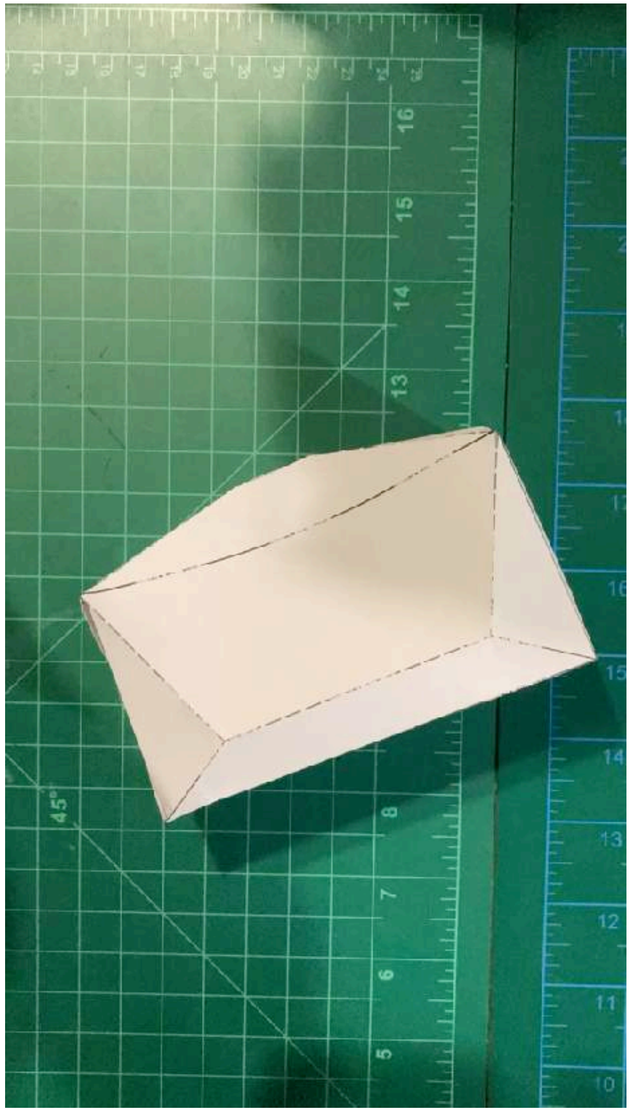
– this one makes the top even larger by decrease the size of the triangles on top

Bento Box 3



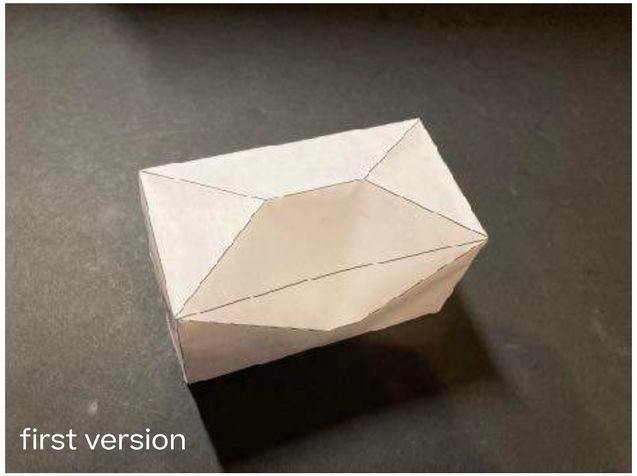


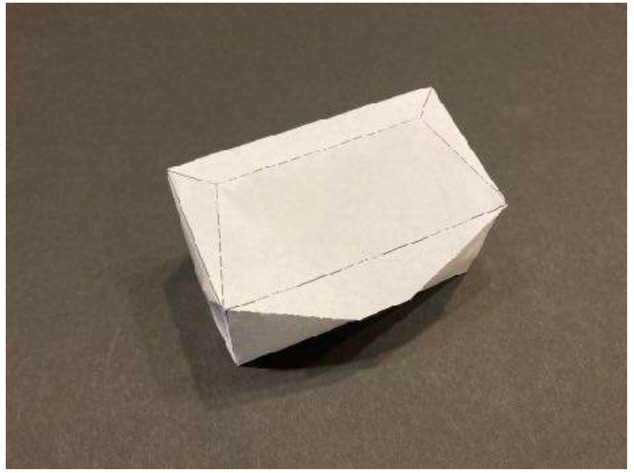


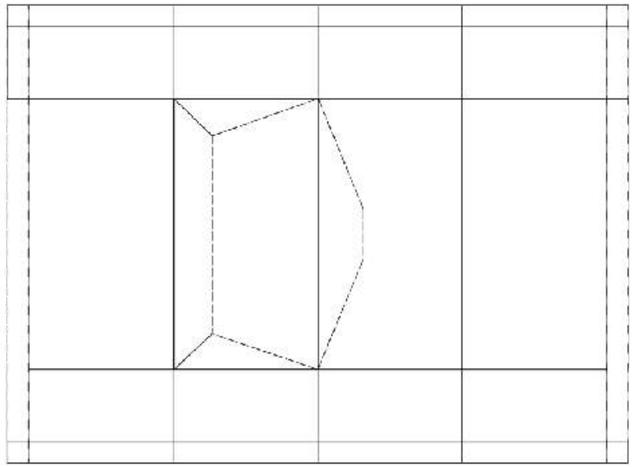


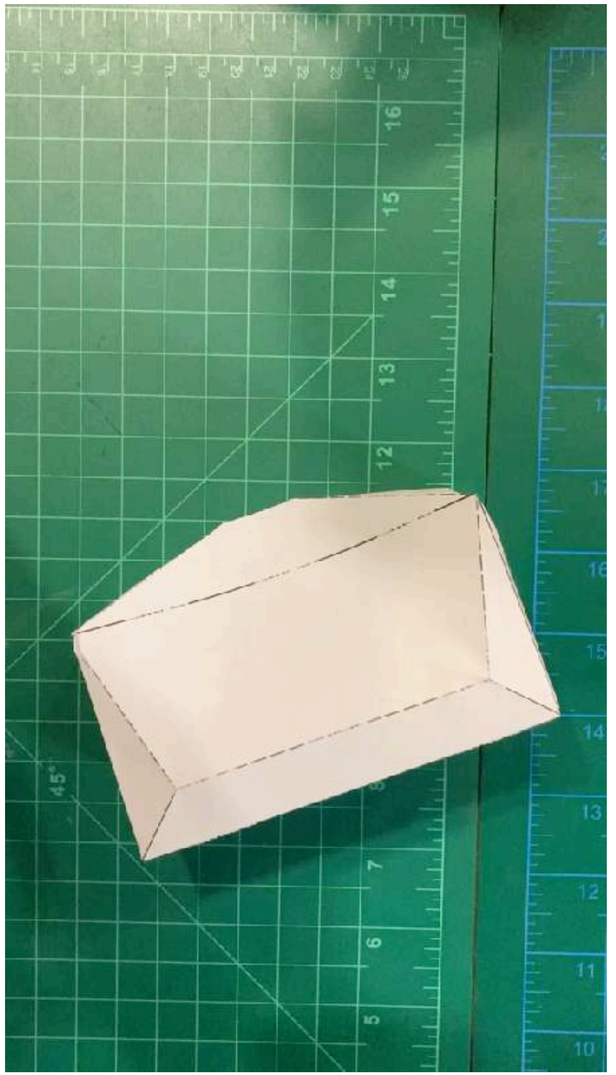
– this one makes the top even larger by decrease the size of the triangles on top

Bento Box 4









– this one makes the top even larger by decrease the size of the triangles on top

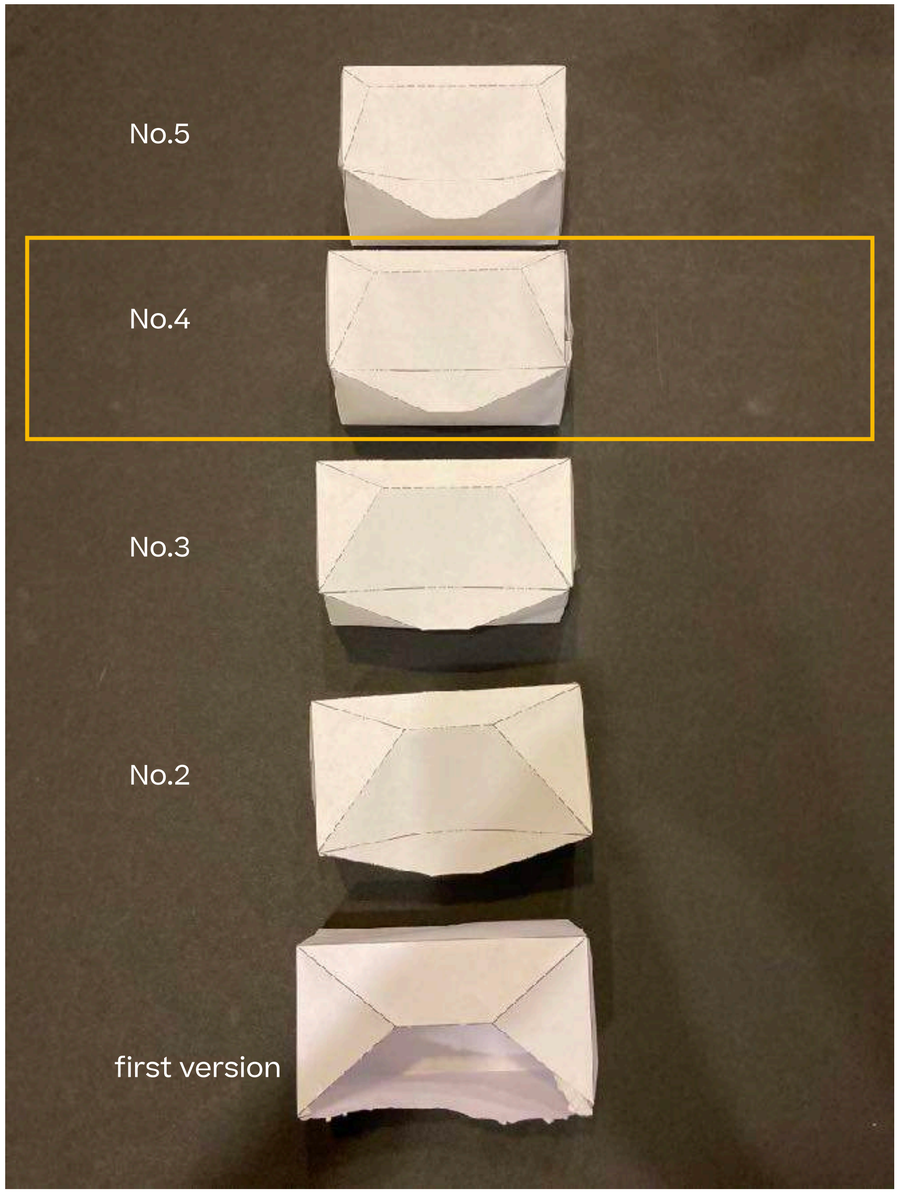
Final Decision

- we choose No.4

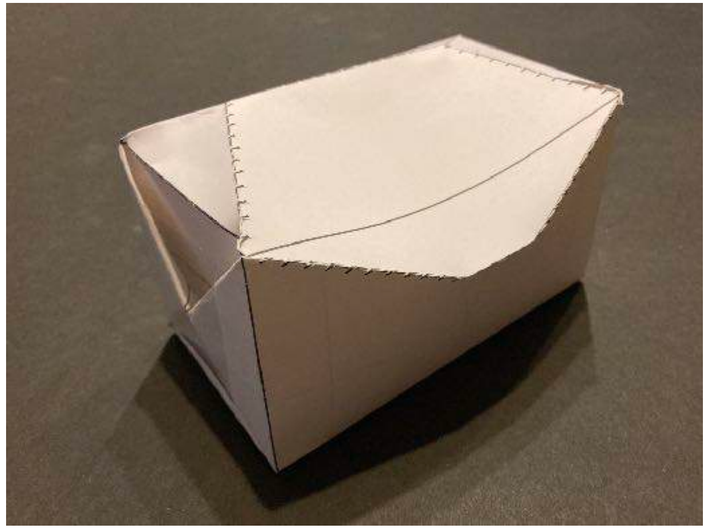
- the opening is not too wide but enough for people to eat without bothering about the borders

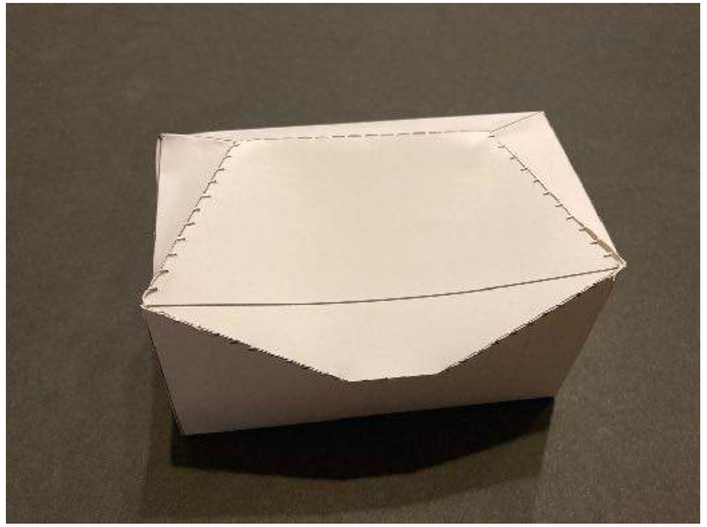
- the borders has structure to help the box stay in shape after tearing out the top (maybe even after heating)

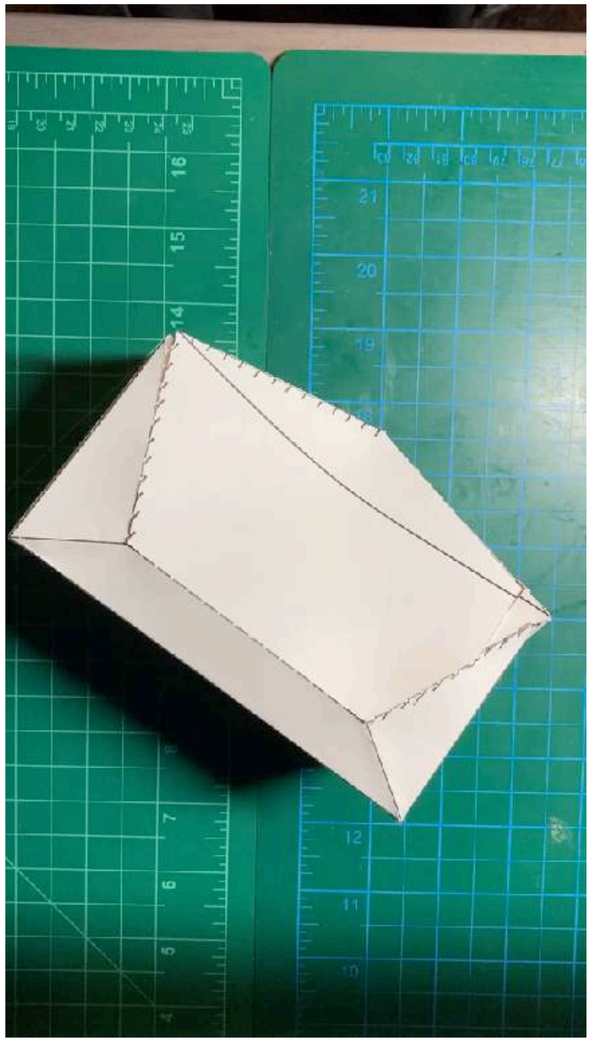
-borders will also help not spilt the food out

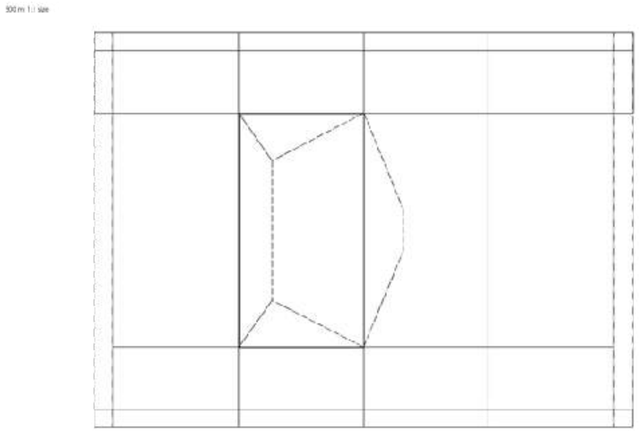


Bento Box 4a





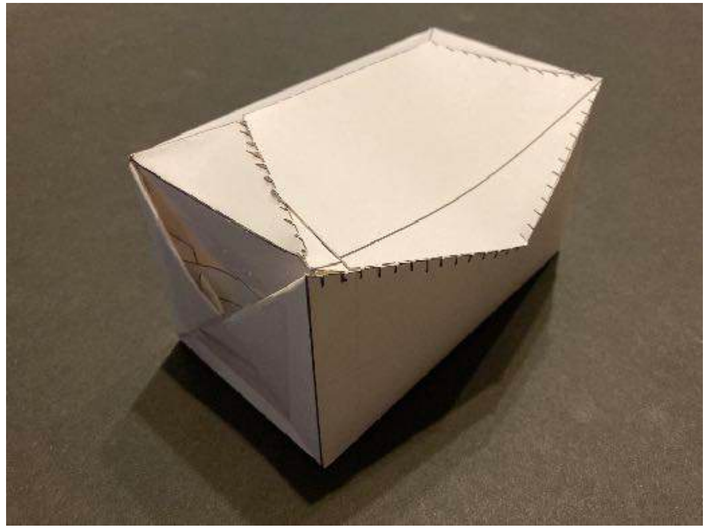


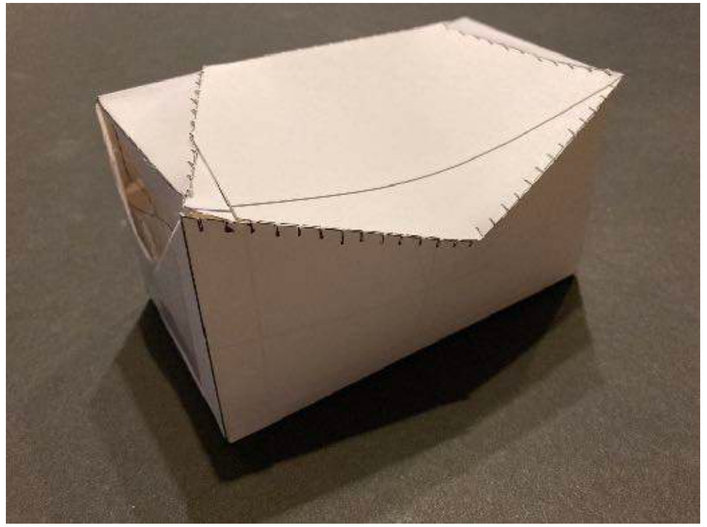


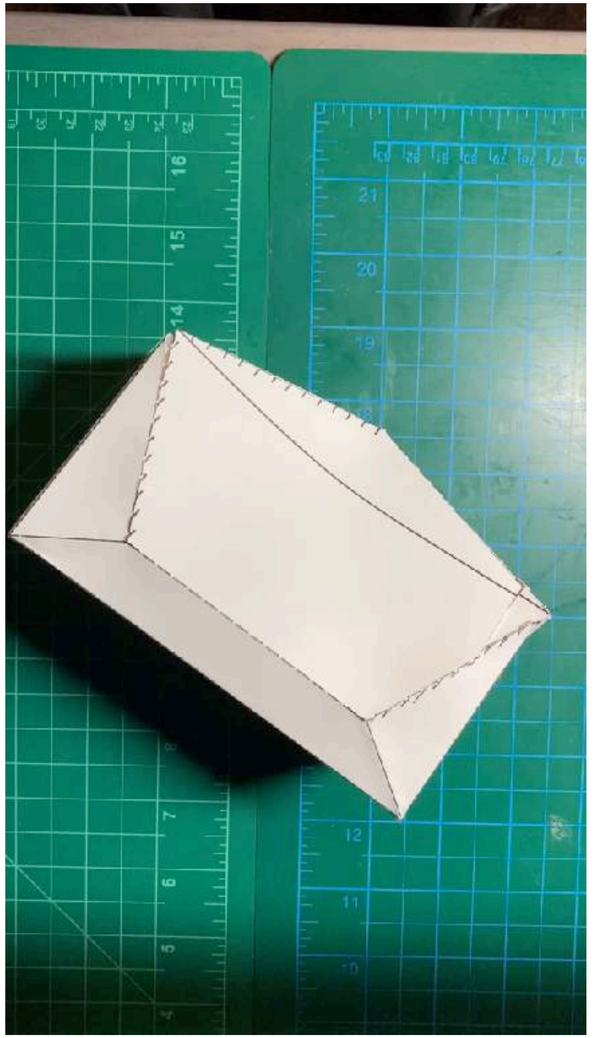
- this is the 1:1 scale of the box (500 ml), made with thick paper (same thickness of SIG carton), with perforation

- it is easier to tear out the perforation compare to just tearing with flat paper. However, it is not ideal situation. The tearing will be harder when there is food inside.

Bento Box 4a

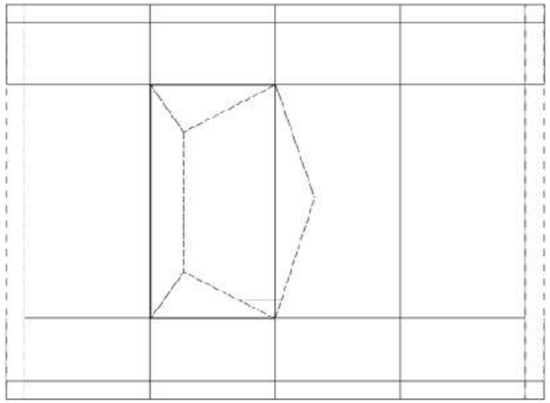






- this is the 1:1 scale of the box (500 ml), made with thick paper (same thickness of SIG carton), with perforation

- this box uses the side tab for tearing and it works a lot better than tearing from bottom.



Next Week

- figure out the inward tearing cutting pattern

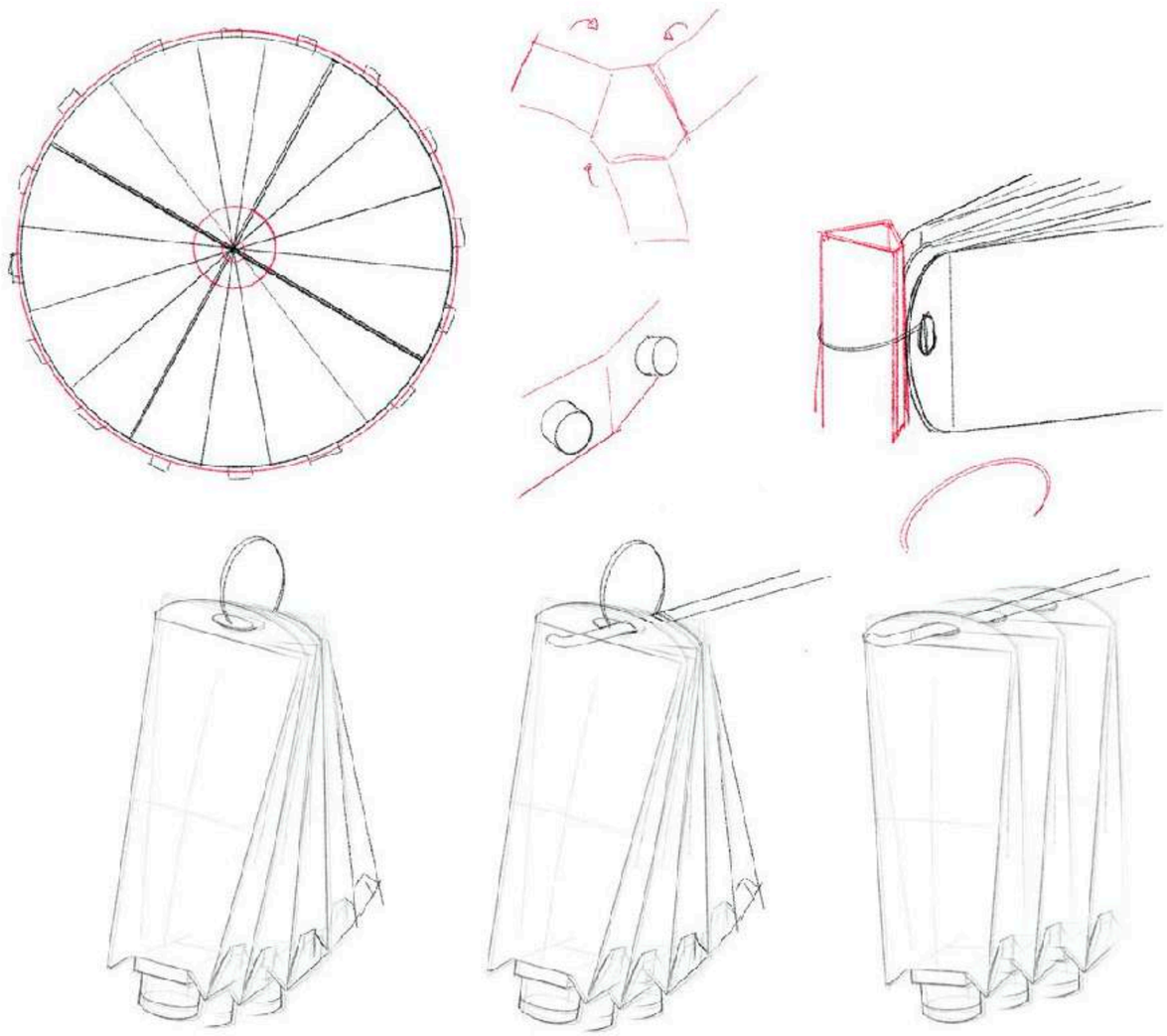
- figure out the spoon

- figure out the bag design

-build more 1:1 size model (only have 500 this week)

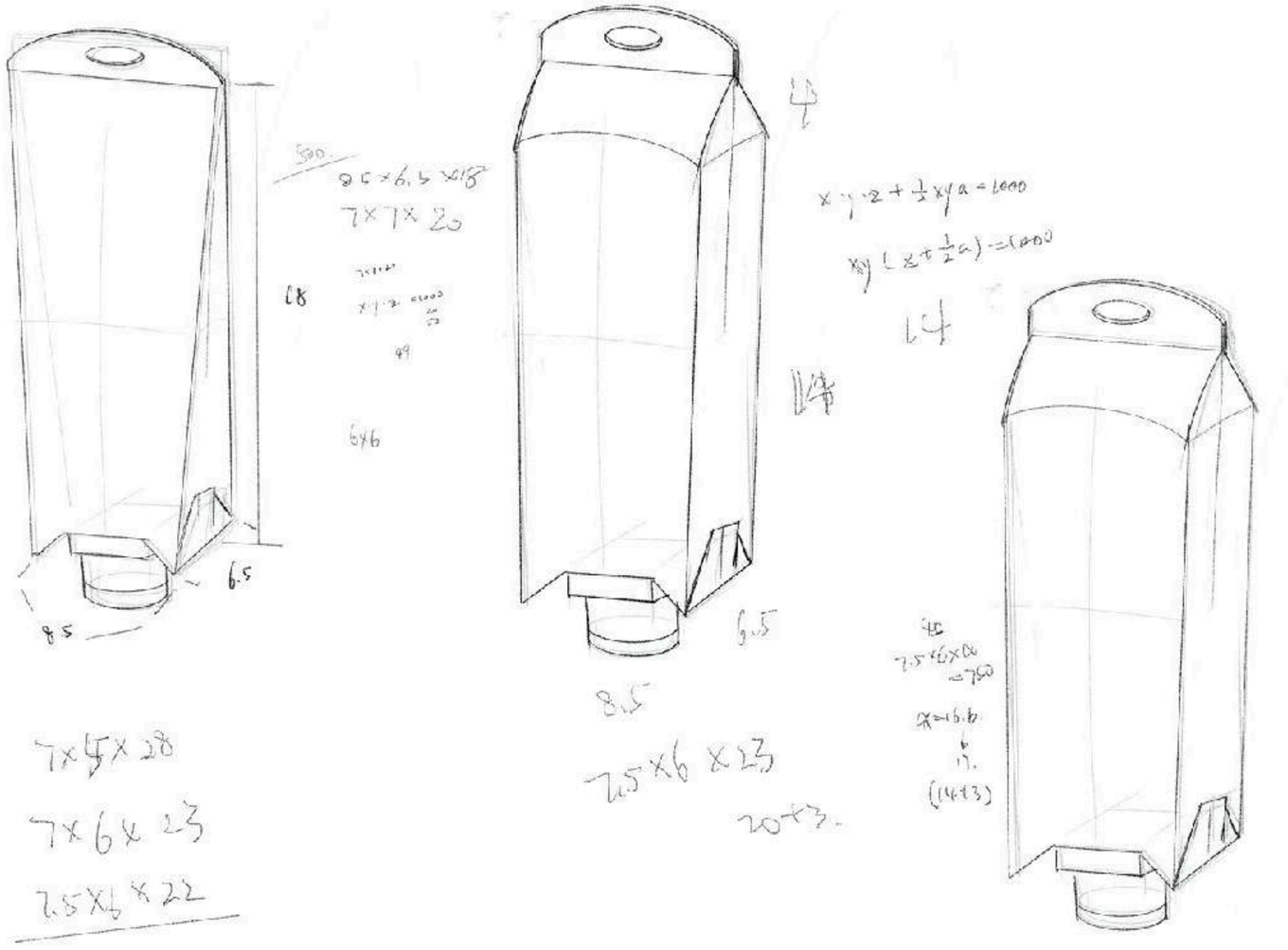
Creamy food

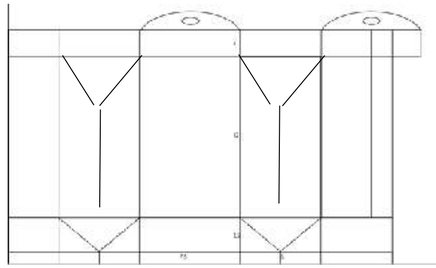
SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu



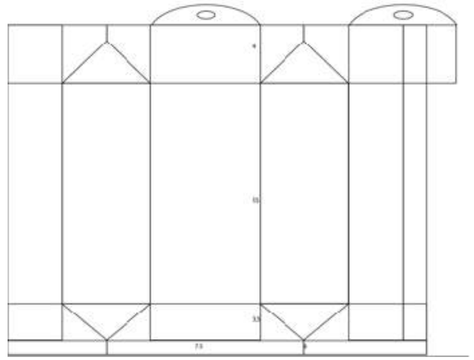
"DANGLE"

"DANGLE"

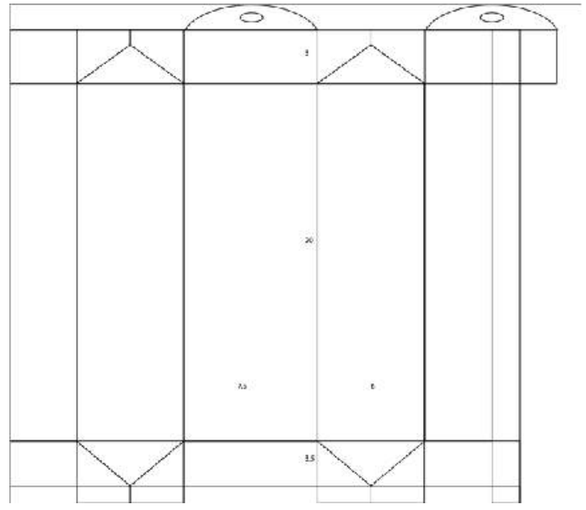




500ml

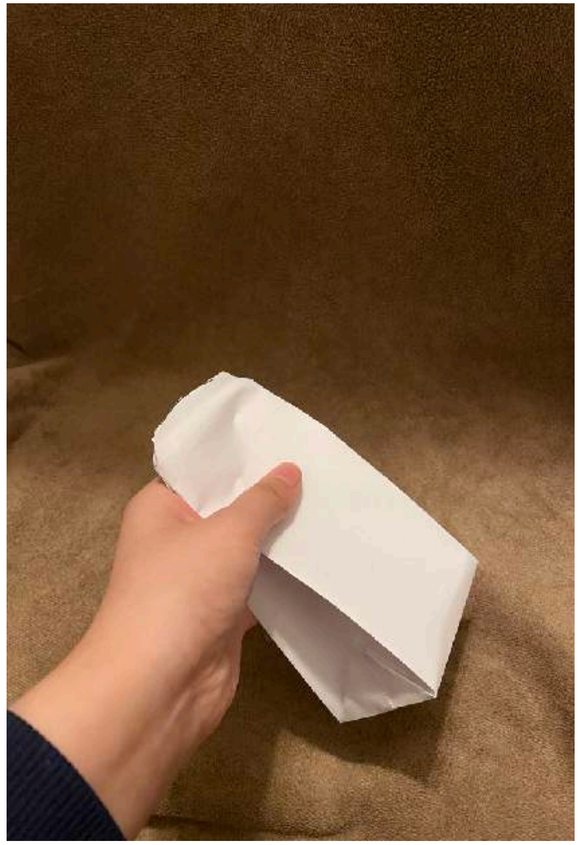


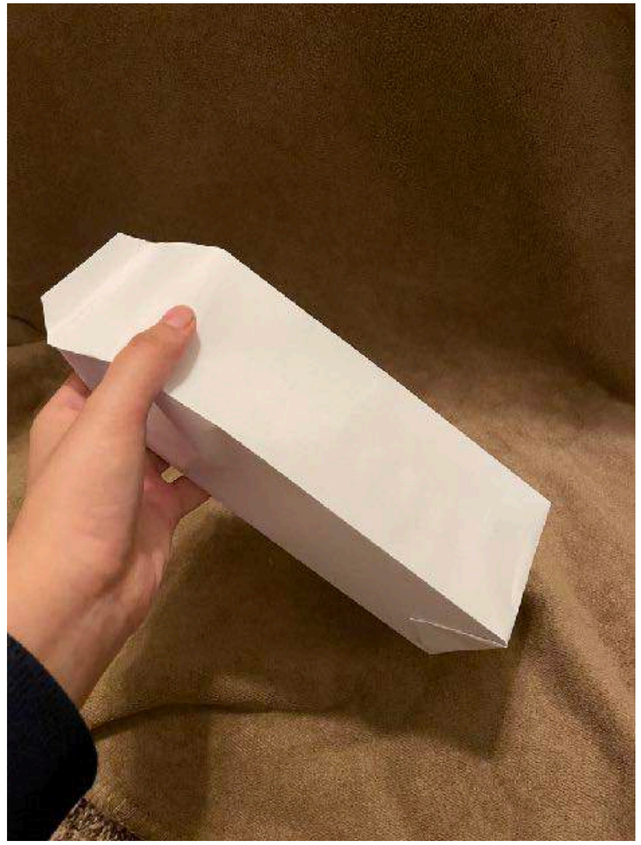
750ml



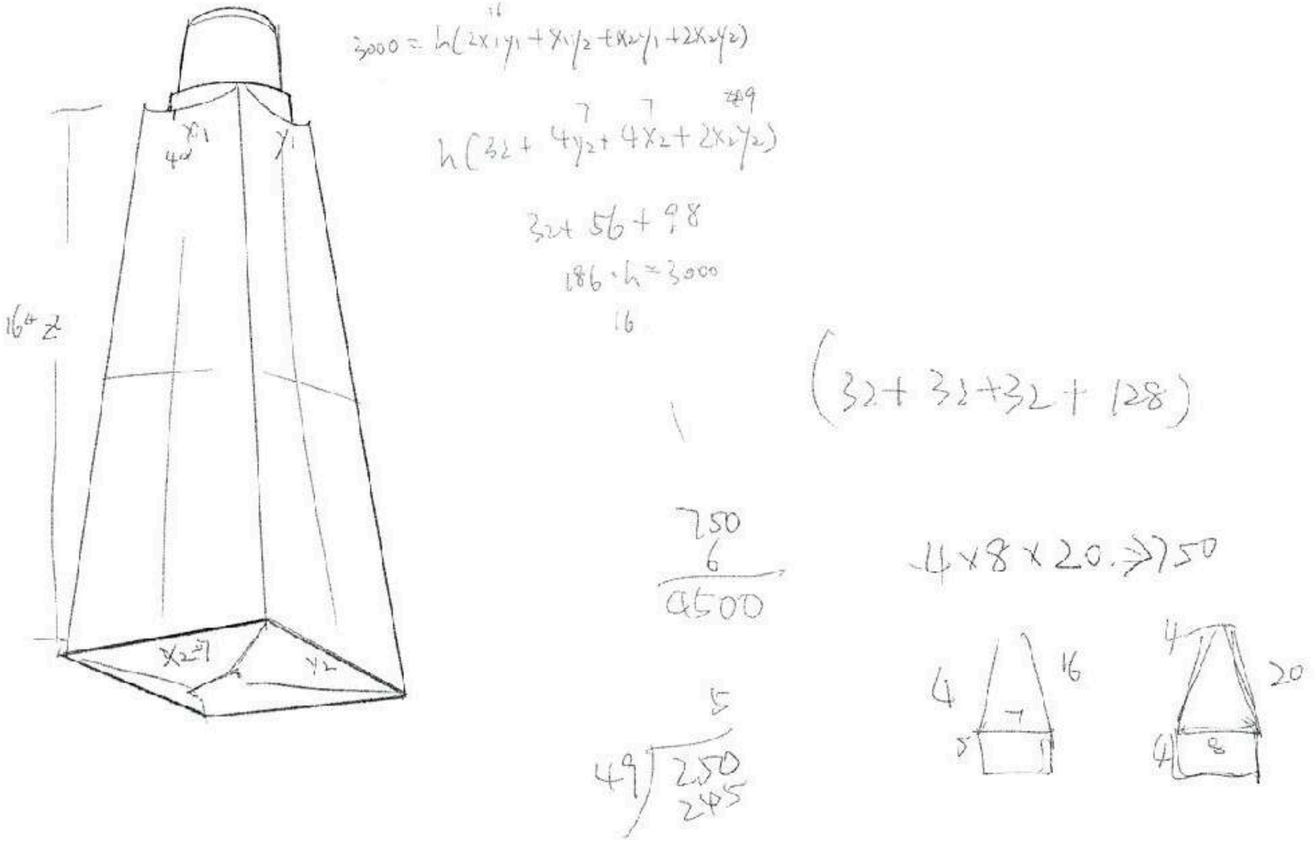
1000ml

"DANGLE" SCALE

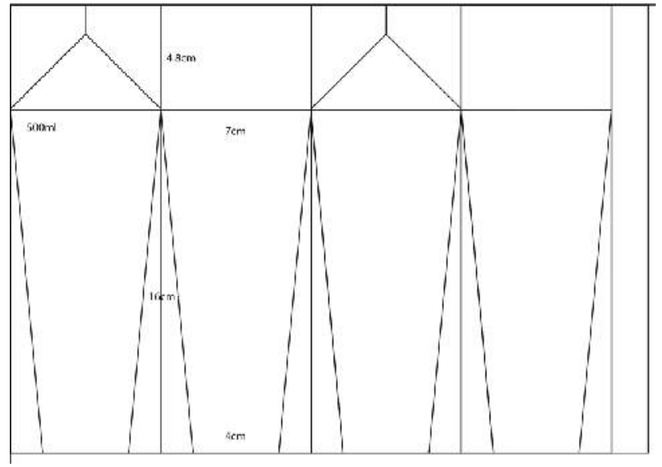




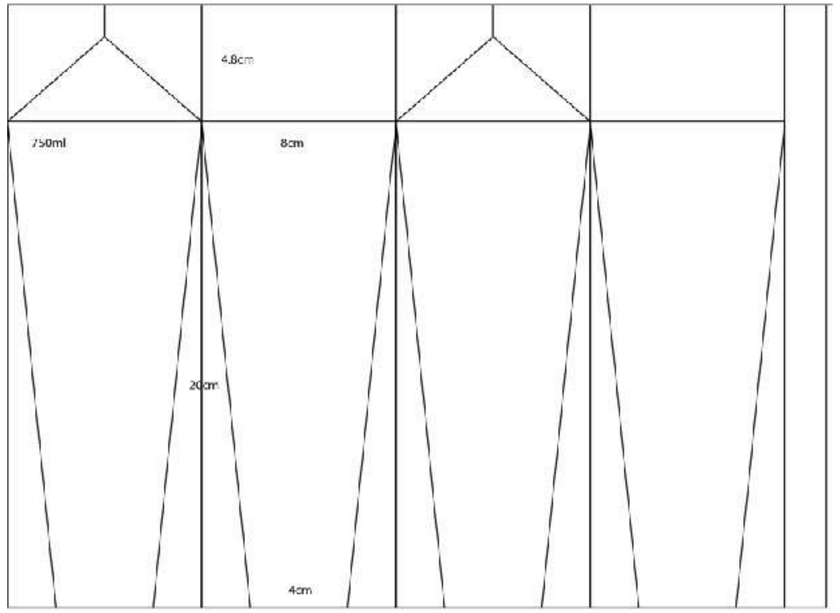
"PYRAMID"



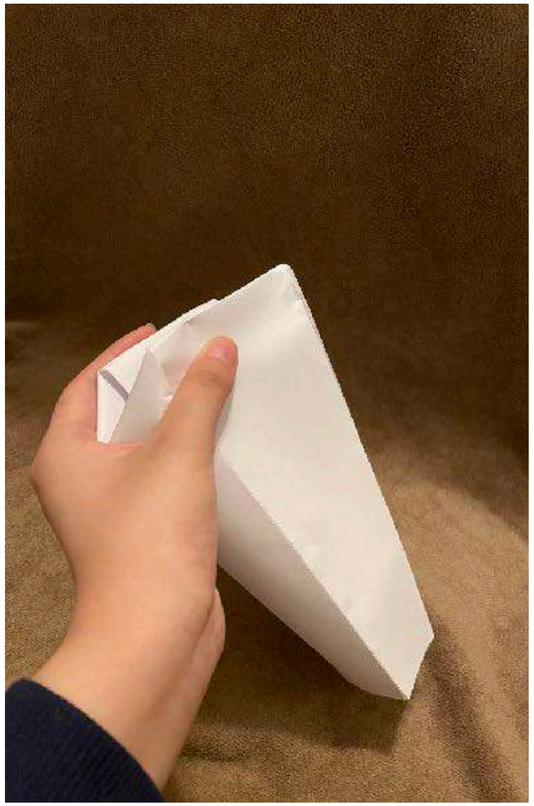
500ml



750ml



"PYRAMID" SCALE



Things to improve:

- refine dimensions (smaller, shorter, proportion)

- ergonomic (softer edge, less material spent?)

Things to improve:

- refine dimensions (does it have to be this tall?)

- mechanism (build how it opens)

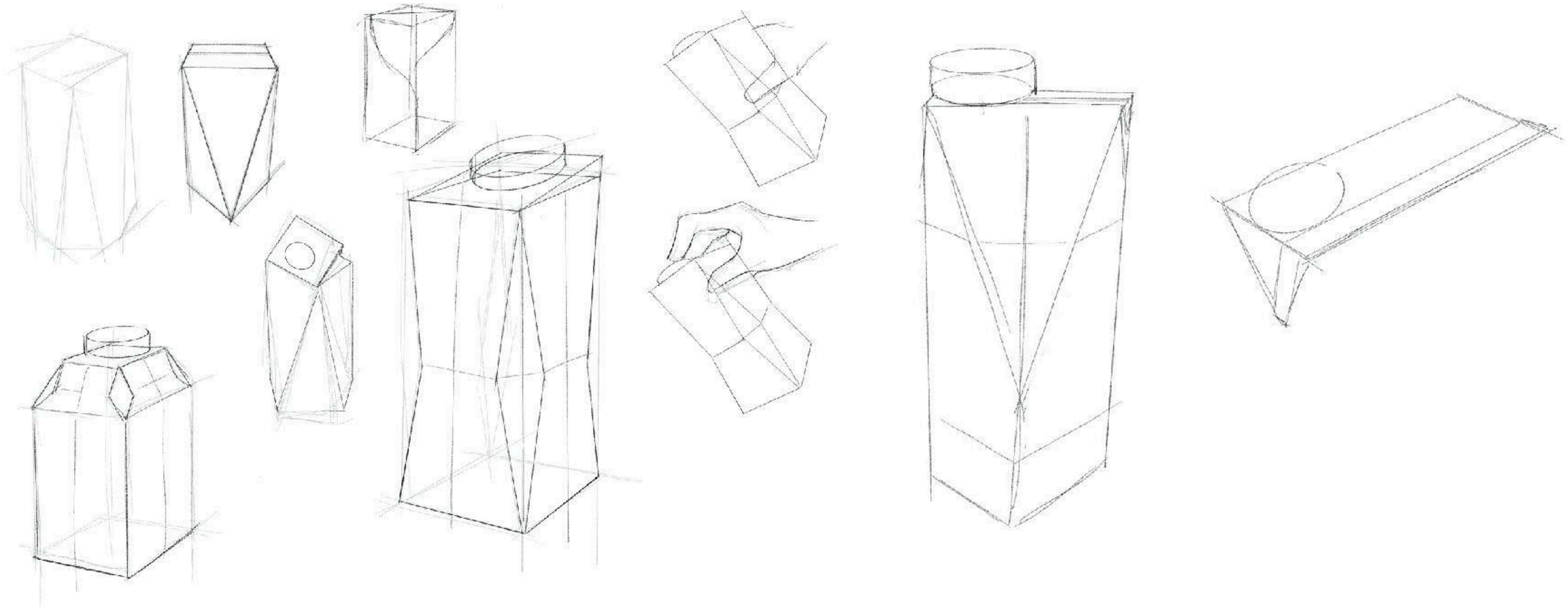
Chunky food

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Chunky food

Food that can be poured out such as beans, corns and fruits that are cut in small pieces

Design requirements:
taller design
closure closer to edge for easier pouring
easy to control
resealable



"TILT"

Things to improve:

- it's hard to rotate the inner section, are we able to rotate the top part instead?

- dimension change

- ergonomic (softer edge, grip texture?)

Chunky food

Food that need to be taken out with utensils such as canned carrot, pineapple and peach

Design requirements:

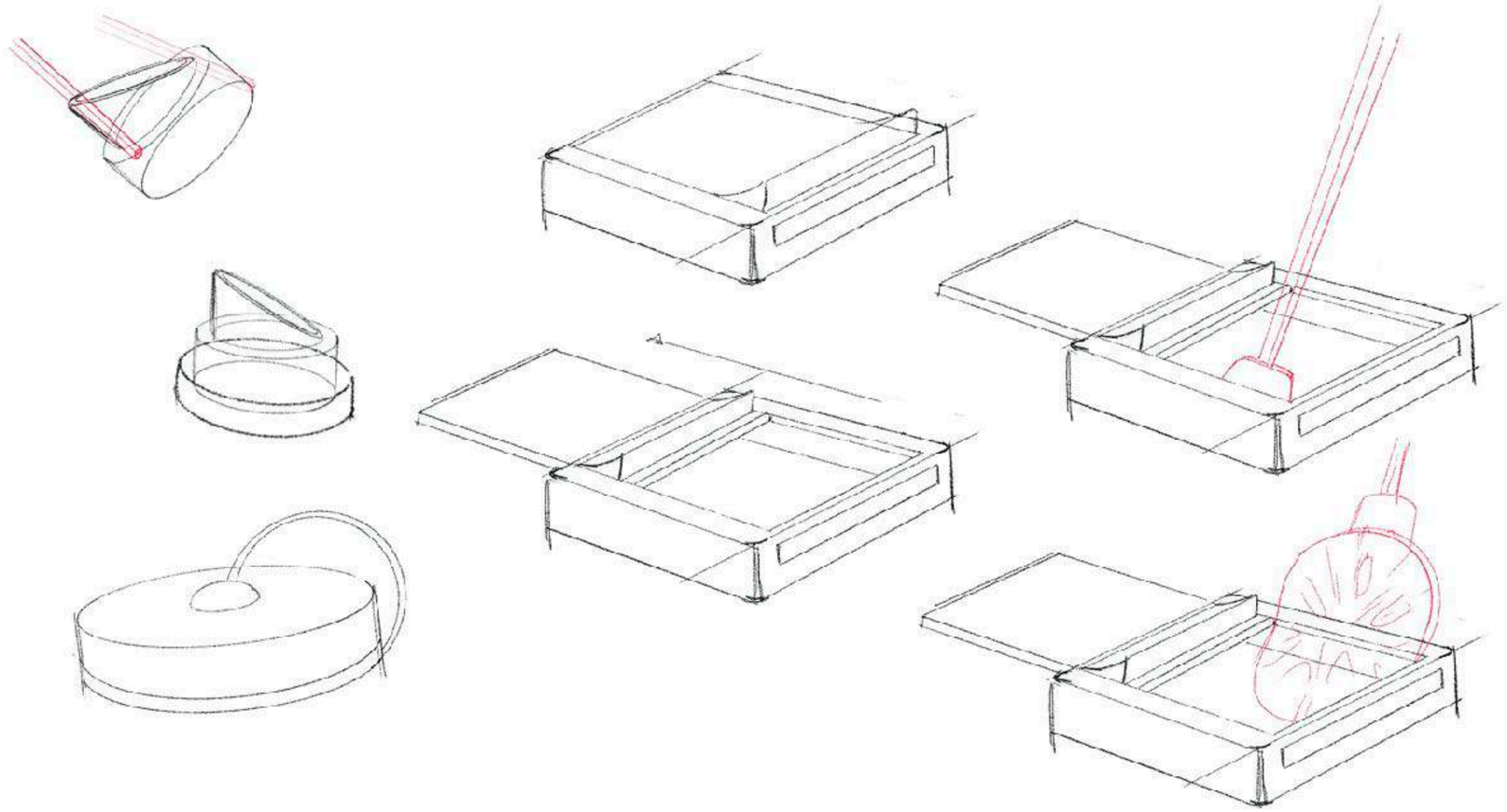
shorter design
big opening enough for utensils to get in
get rid of the extra liquid
resealable

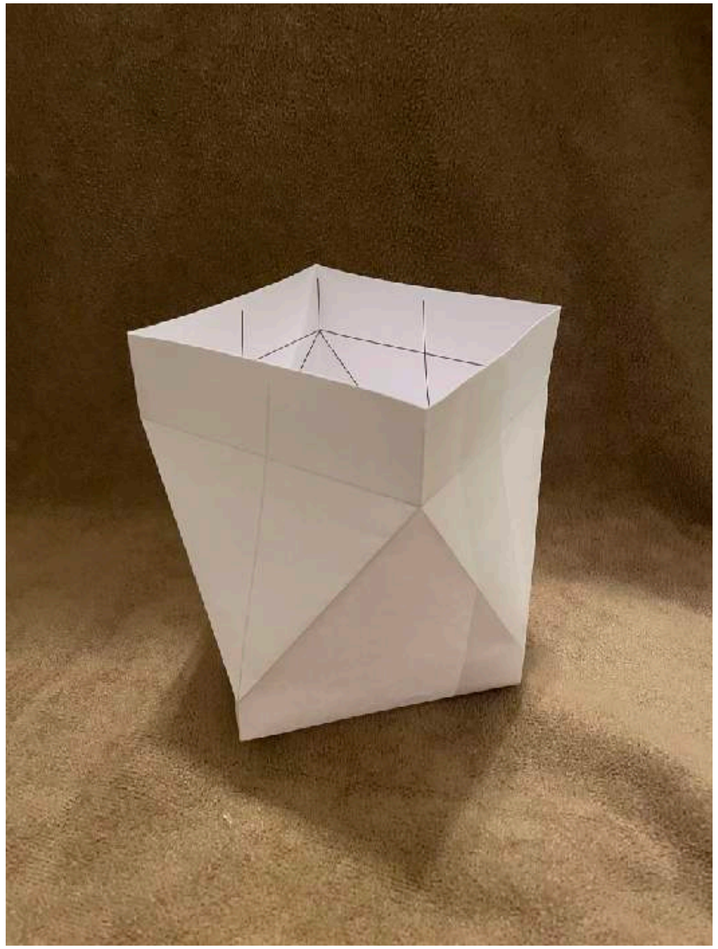
Things to improve:

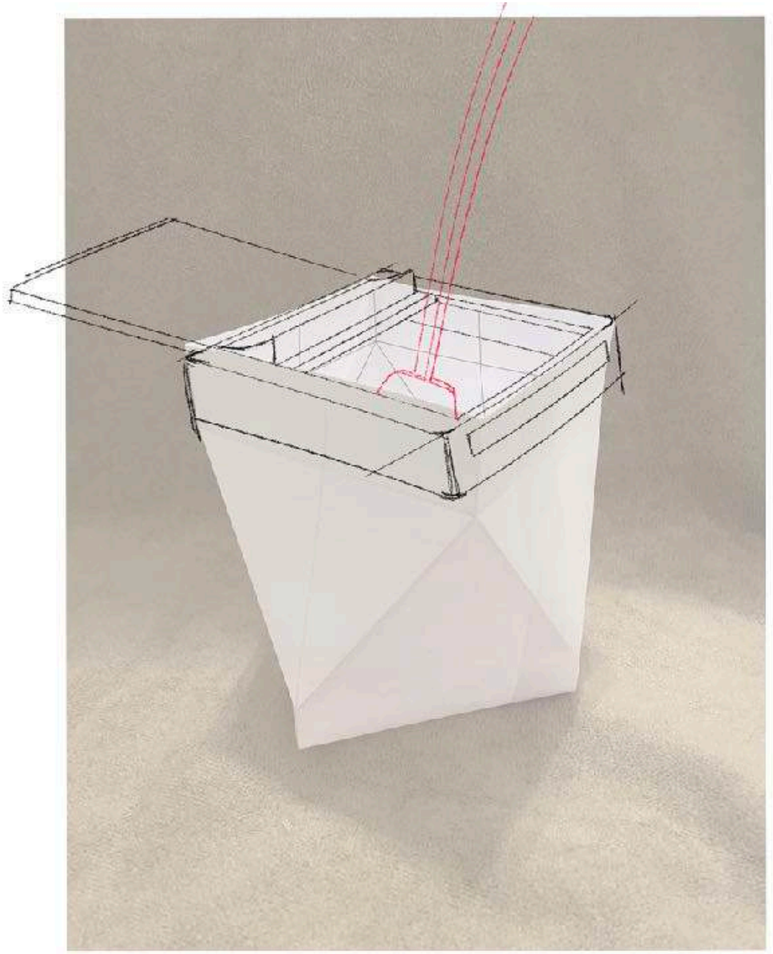
- hard to grab the stopper

- bigger opening for chunky food that needs to be picked out to eat (seal with the closure? why can't it be square to avoid wasting space)

- ergonomic (softer edge, less material spent?)







"STAR FRUIT"

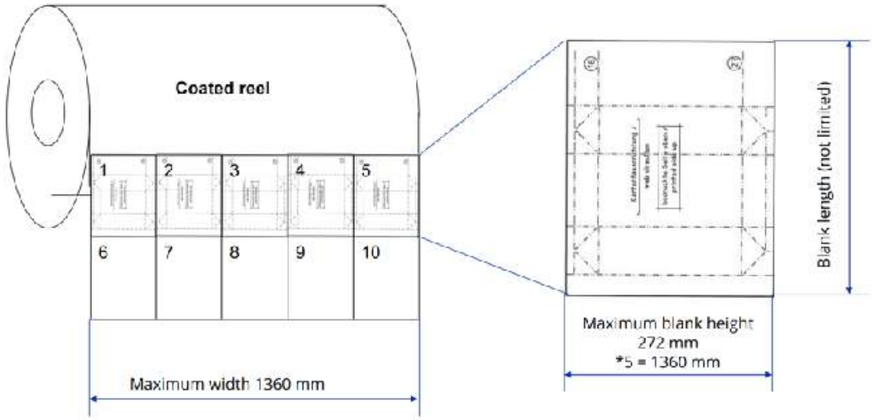
QUESTIONS

- How do we calculate the 500-1000 ml size? Do we make sure the food inside is 500-1000 ml or the overall size of the packaging is 500-1000 ml?

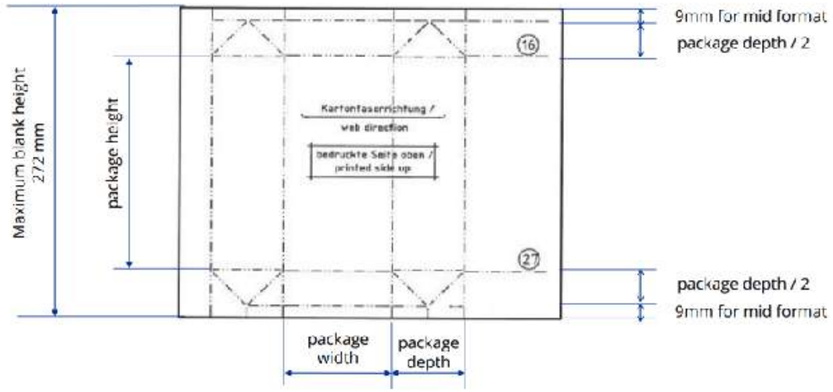
- Do we have to meet all three sizes (500, 750,1000 ml) with each of our design?

- Which is the best way to define our external packaging? Should we emphasize the charity part based on our story or go more commercial by choosing companies and develop the design with their design language? Which company should we choose to strengthen our product line?

COMBIBLOC 5 LINES – MID FORMAT PACKAGES



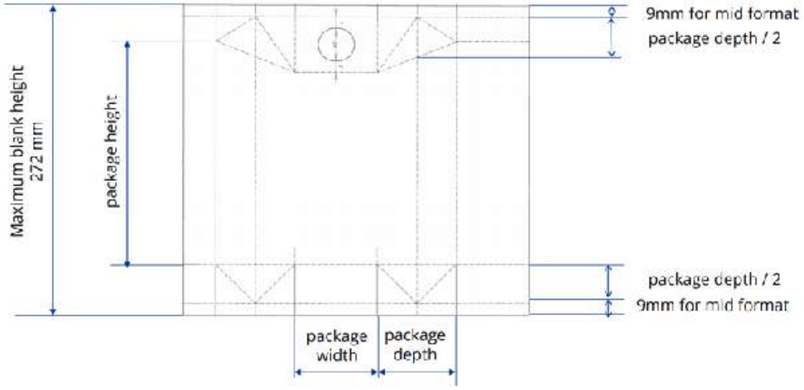
COMBIBLOC – MID FORMAT PACKAGES – FLAT TOP



Maximum package height = 272 mm – 2 * (9 + package depth/2)

– Are those sizes the maximum of the flat pattern?

COMBIBLOC – MID FORMAT PACKAGES – SLANTED TOP



WEEK 12

FEEDING THE WORLD

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Statement

We design revolutionary aseptic cartons with distinctive functions and forms. These designs aim to help people **EAT BETTER** in both short way and long way.

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Statement

Our “ready to eat” microwavable, utensil embedded carton plays a significant role in emergent disaster relief.

We also design cartons and closures based on different food textures to provide fresh, nutritional food for worldwide eaters.

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Form

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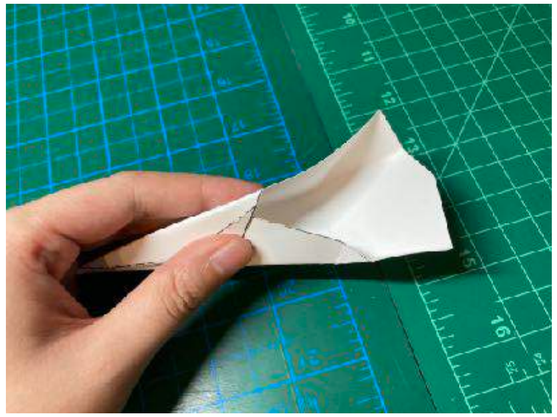
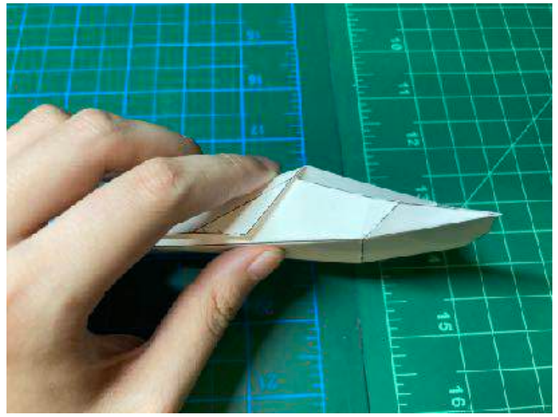
Ready to Eat

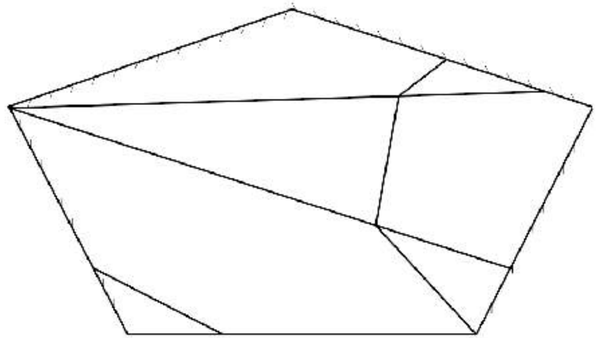
SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Spoon 1

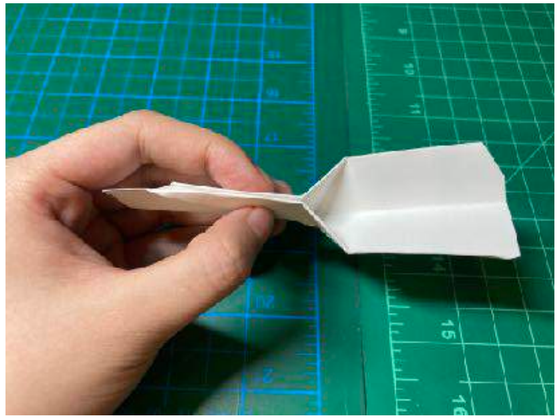


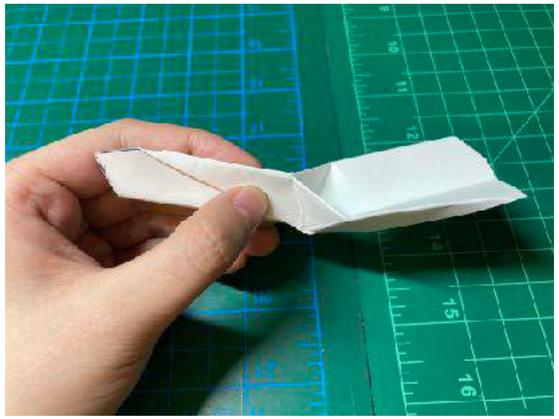


-the food will easily slide into the spoon and may cause spilt over when using it onto real food

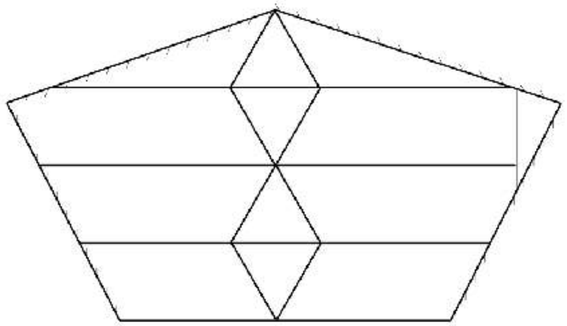


Spoon 2





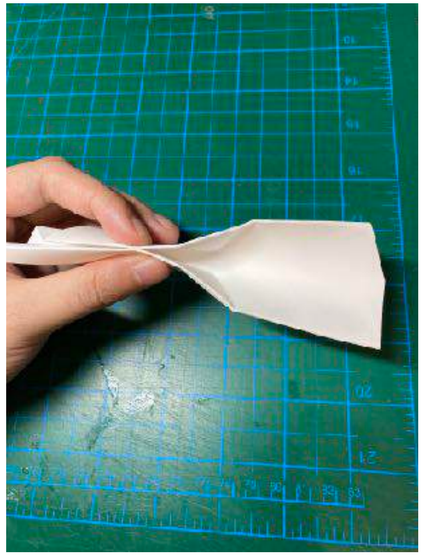
-the structure of this one is not stable enough and if the food is heavy and large it will drop or can't hold on to the food

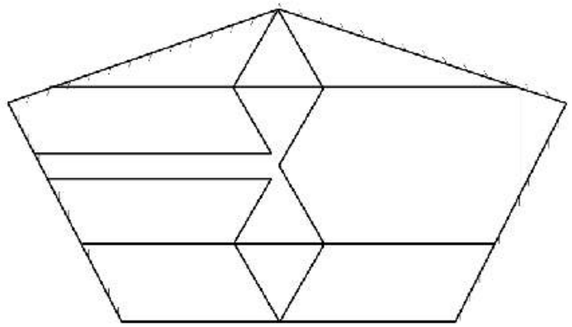


Spoon 3

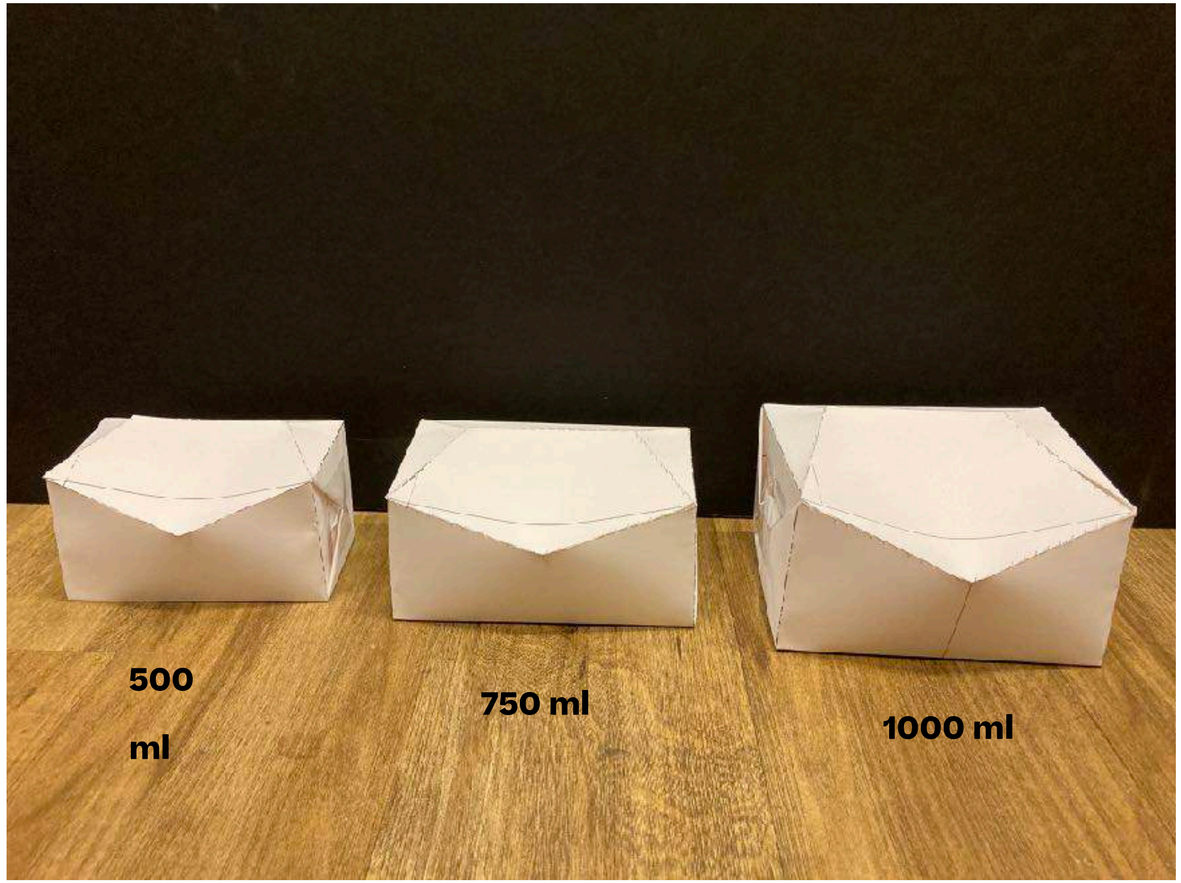
-this spoon fix the problem from

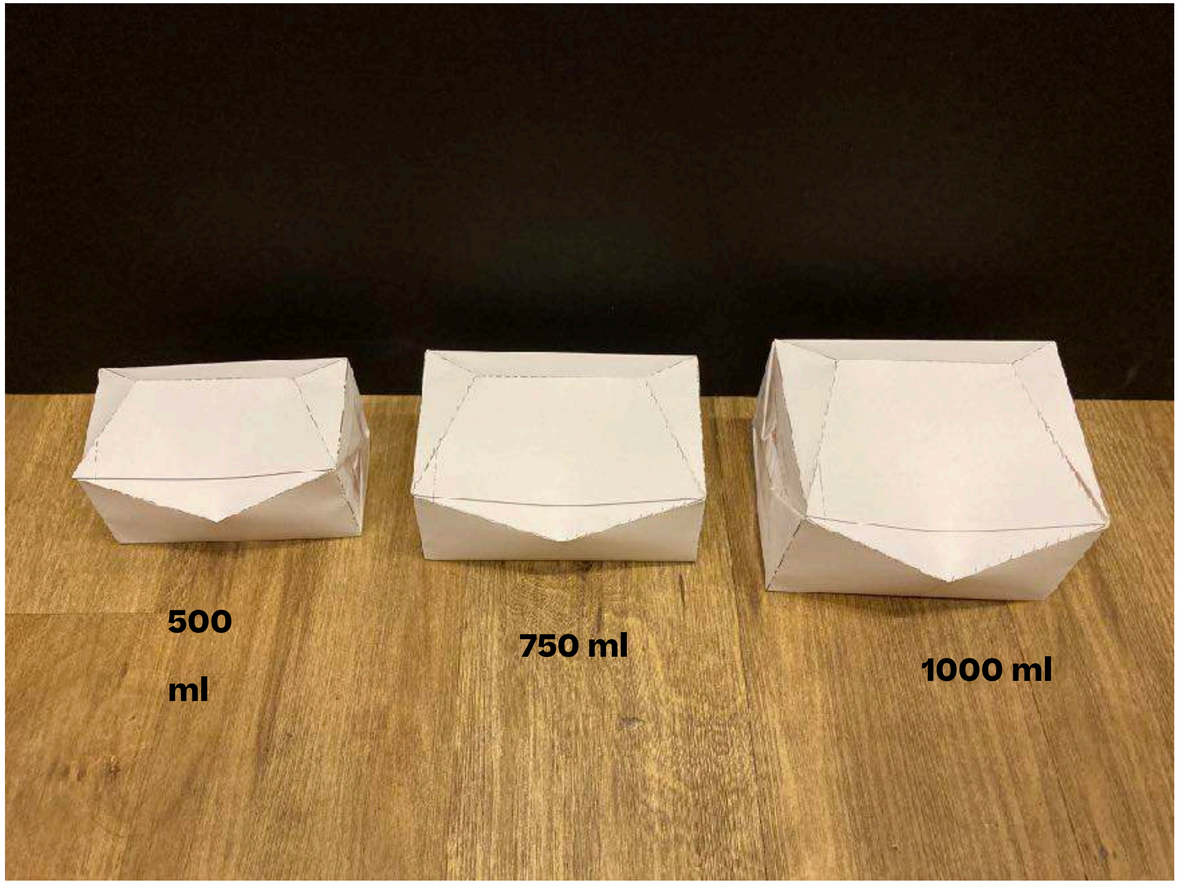
last one and function well



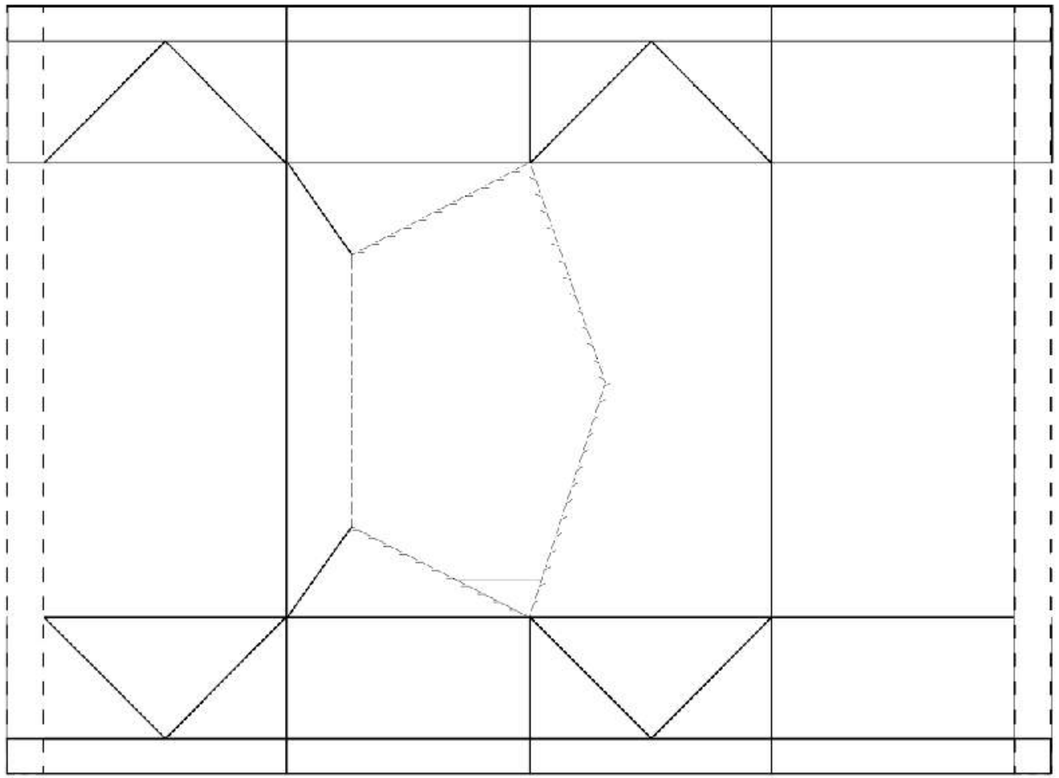


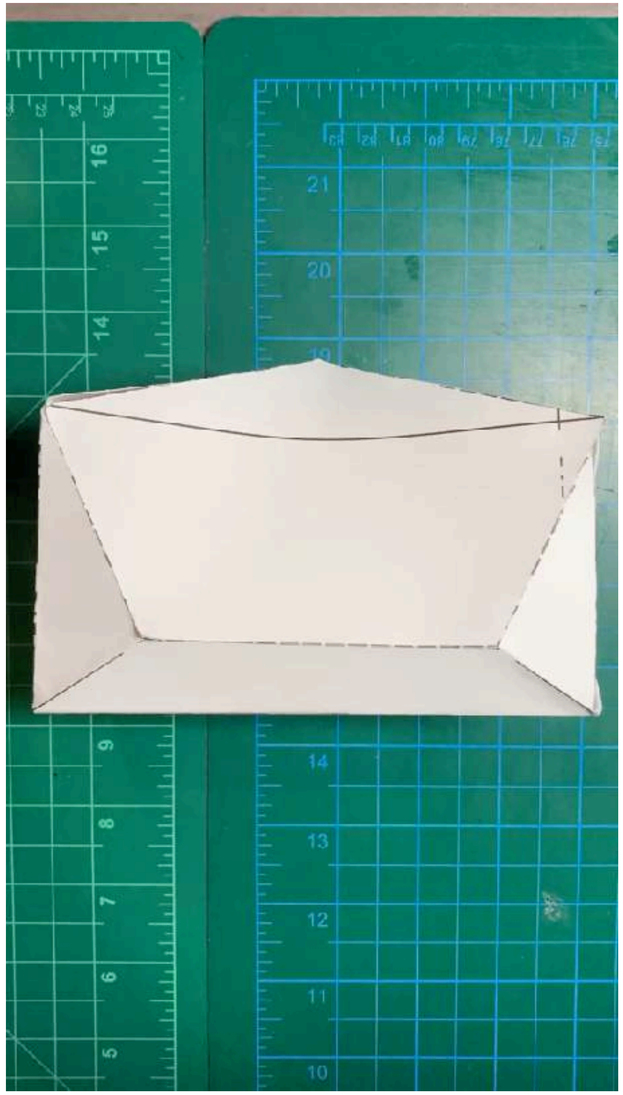
Final Bento Box



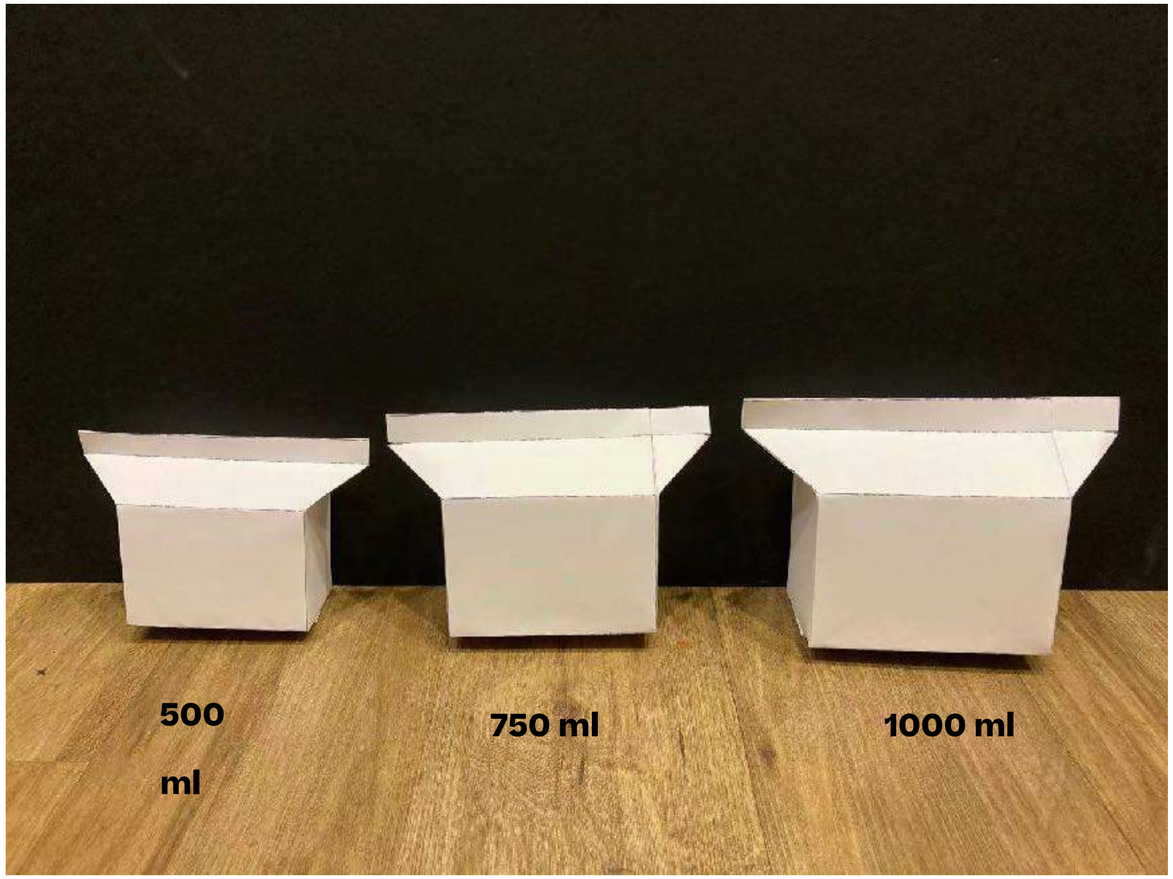


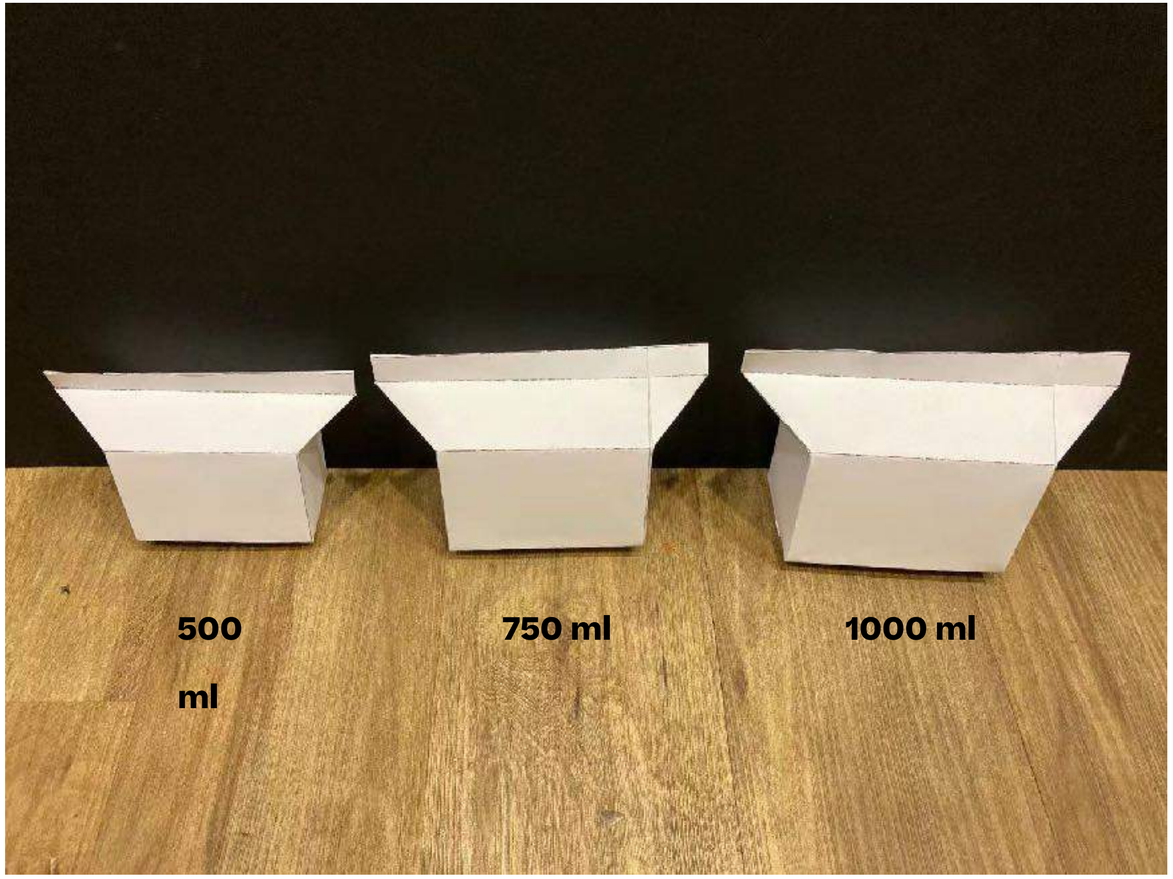
Final Bento Box



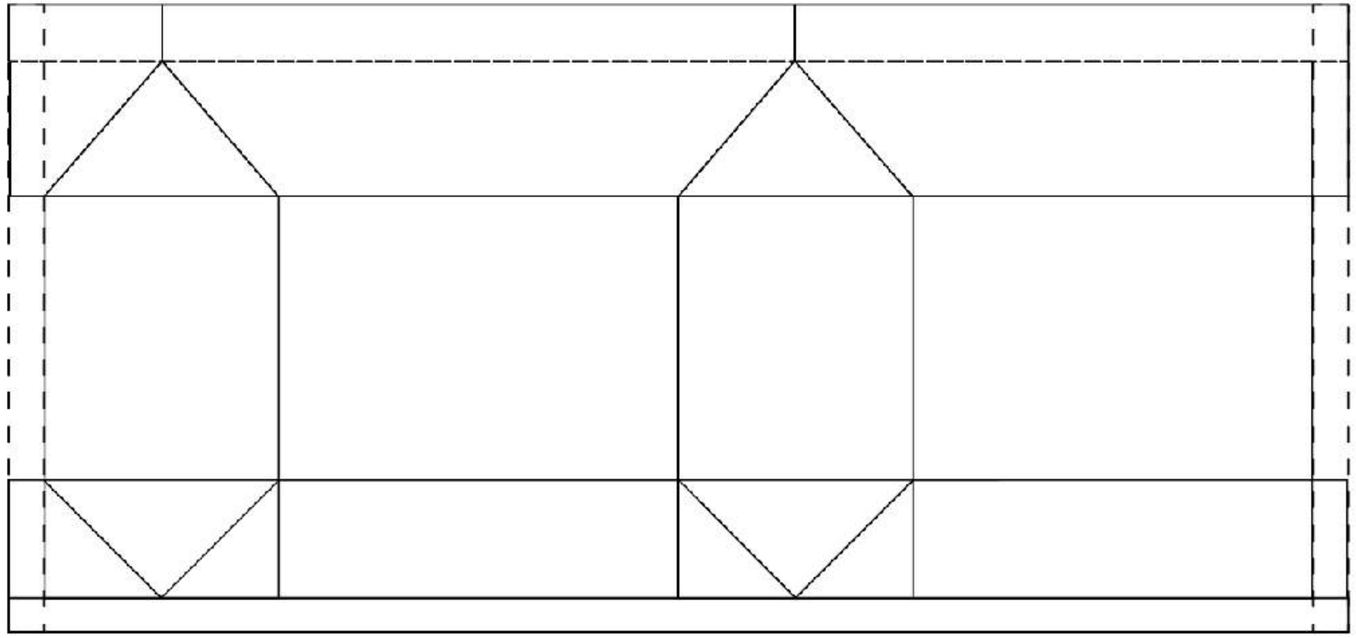


Final Bag Box





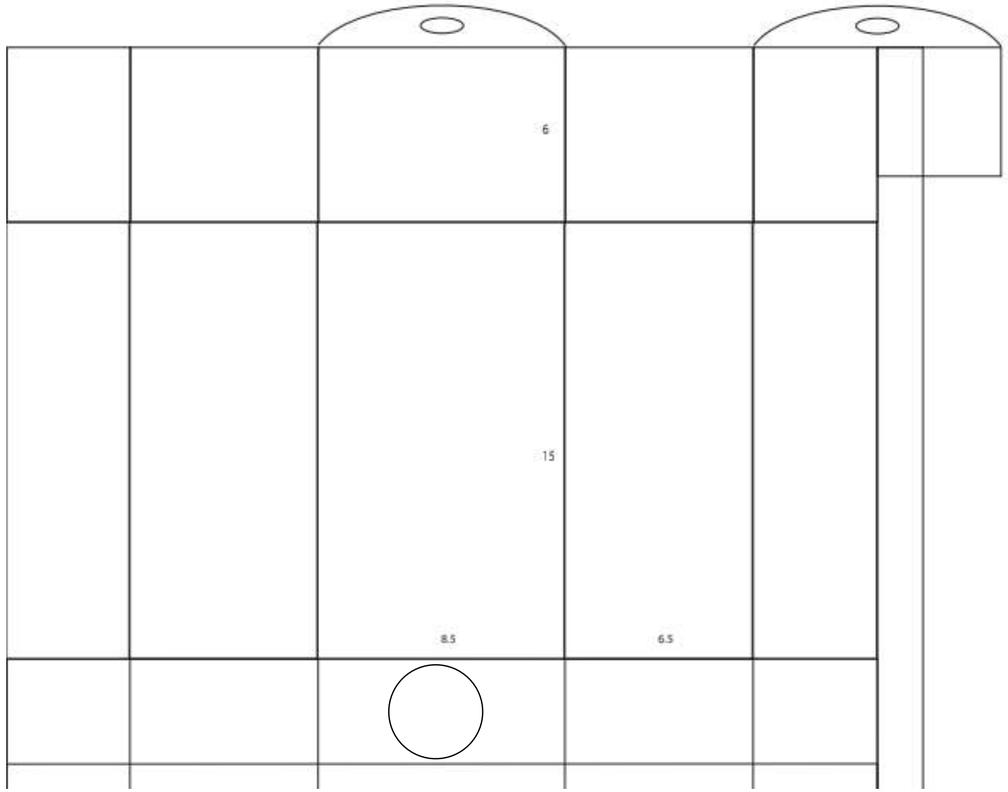
Final Bag Box



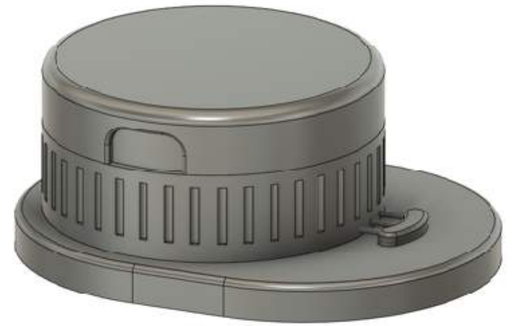
Creamy food

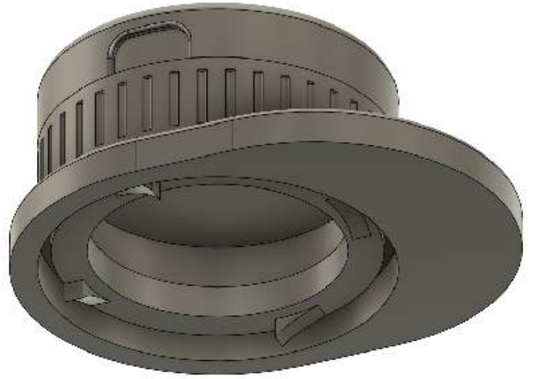
SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Dangle

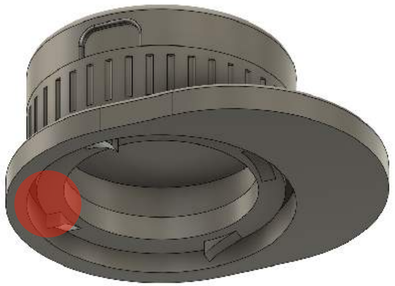


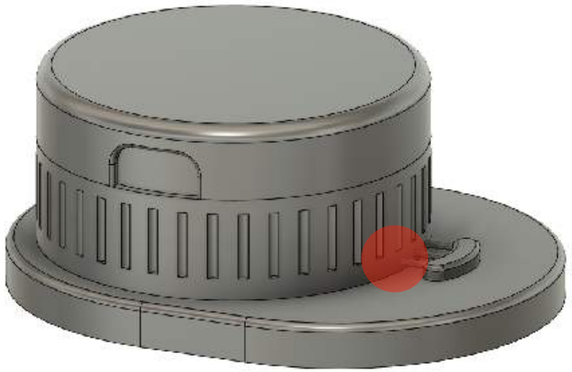
No Sugar Added
CALIFIA FARMS
DAIRY FREE
BETTER HALF
VANILLA
COCONUT CREAM & ALMONDMILK



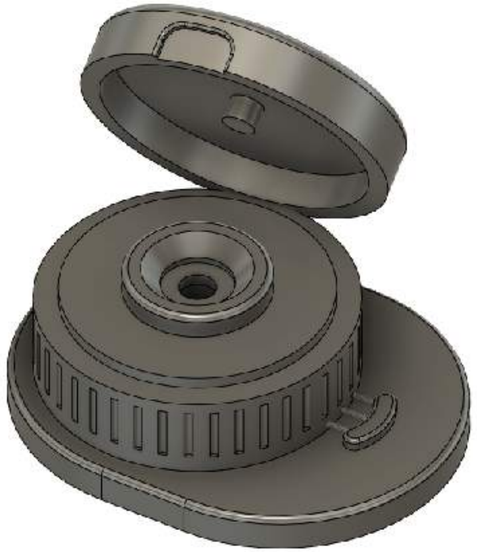


At the same time, the teeth will break the foil

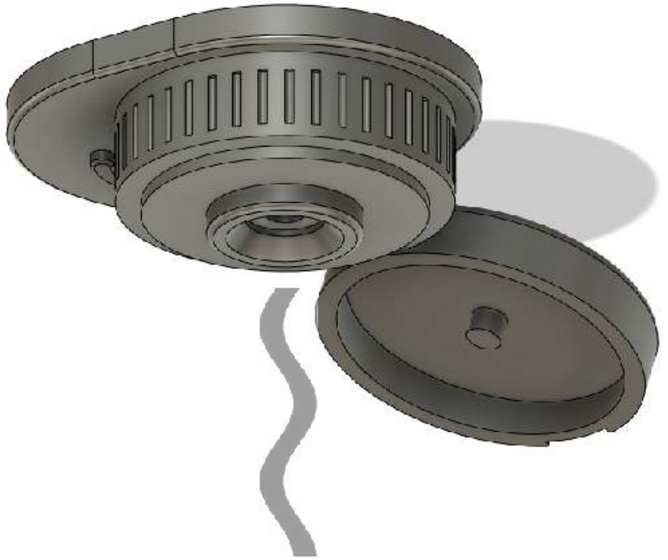




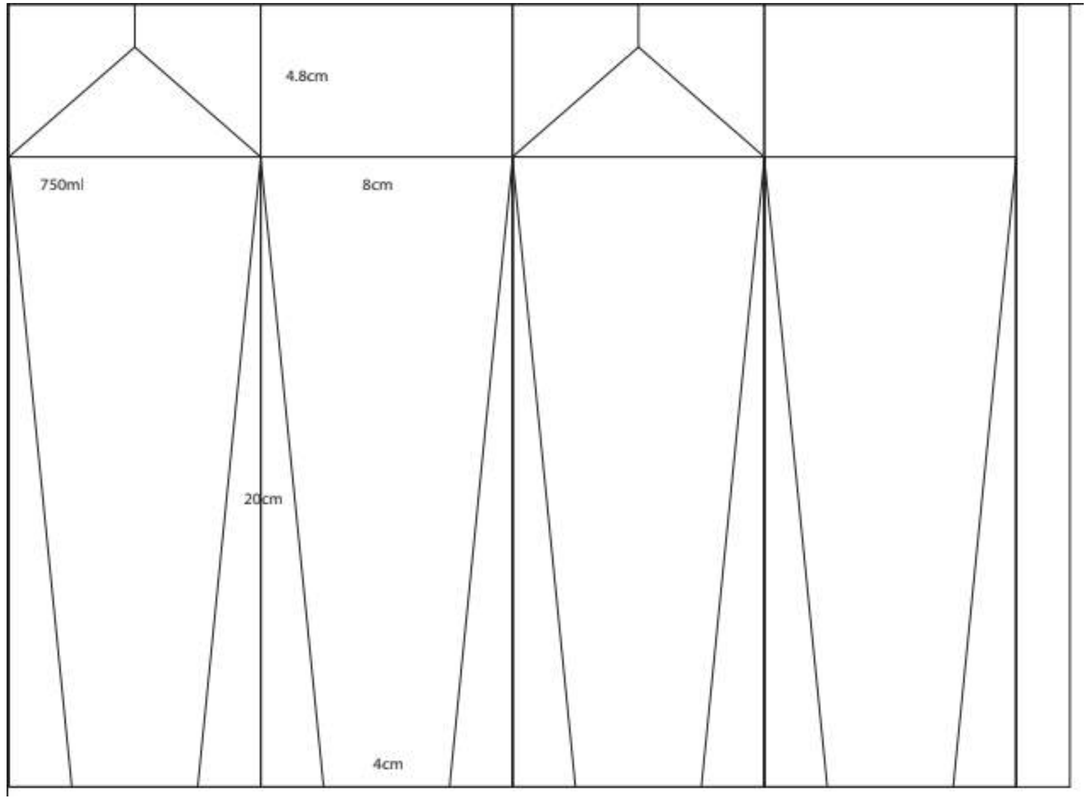
Rotate the upper part to break the stopper

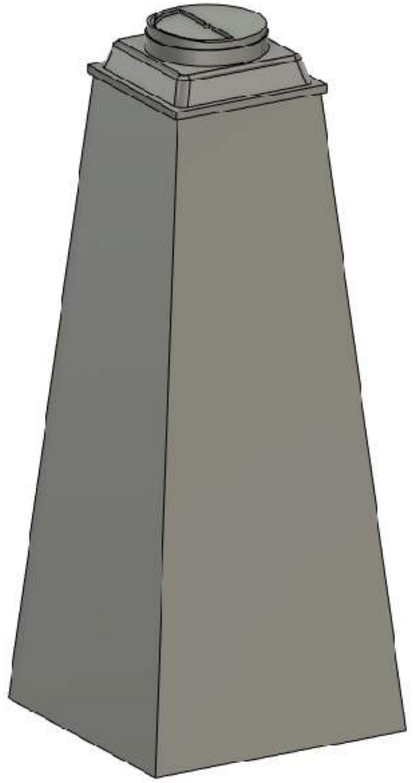


Flip to open the lid

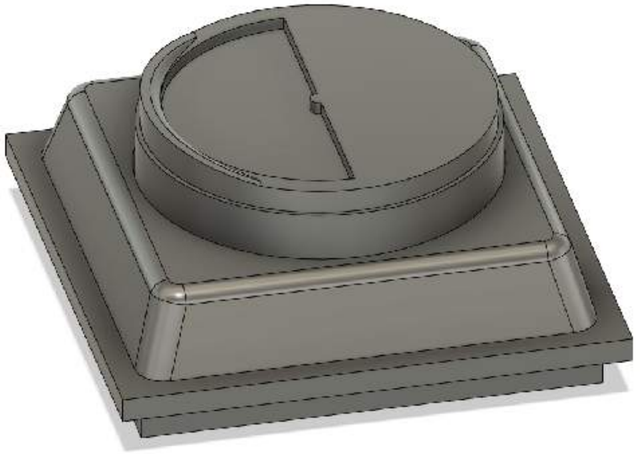


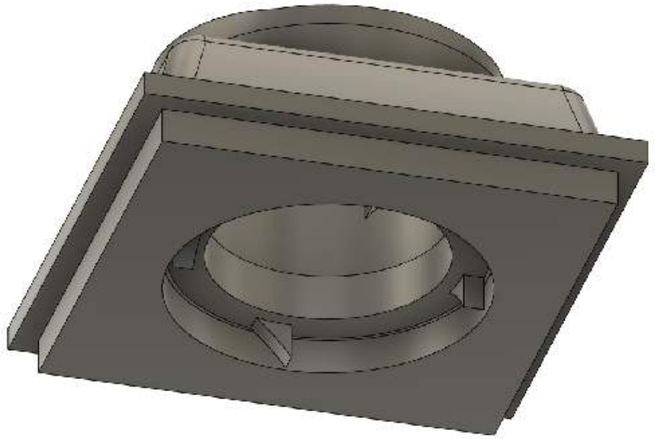
Pyramid



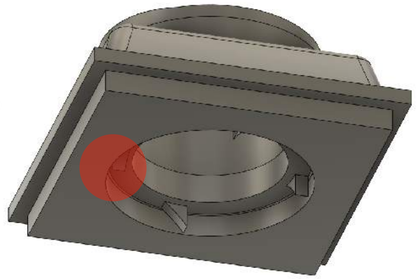


No Sugar Added
CALIFIA
DAIRY FREE
BETTERHALF
VANILLA
COCONUT CREAM
& ALMONDMILK

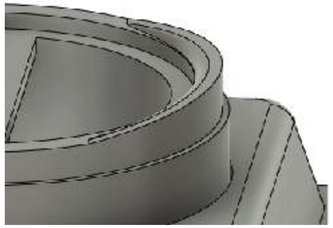


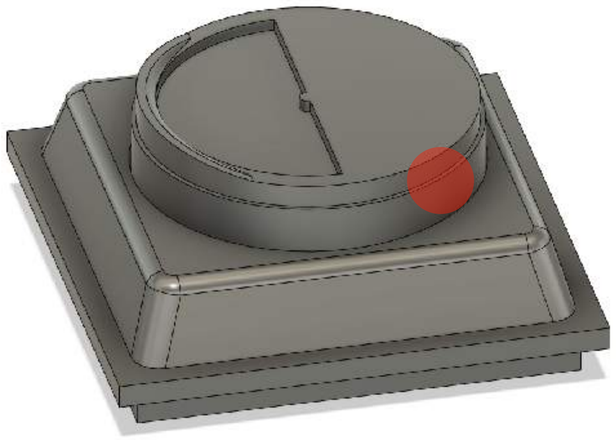


Teeth at the bottom to break the foil

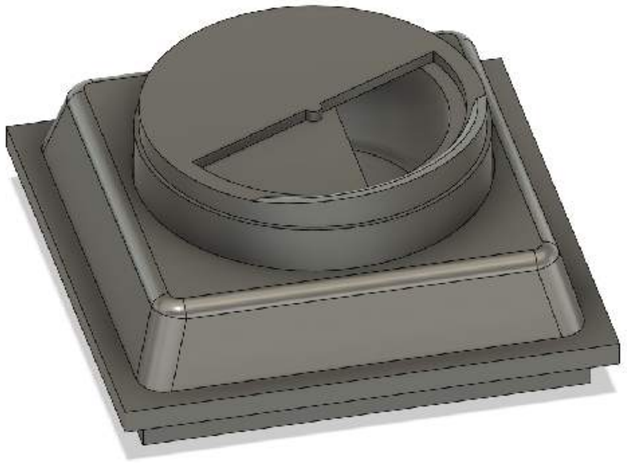


Serves as a guide when pouring

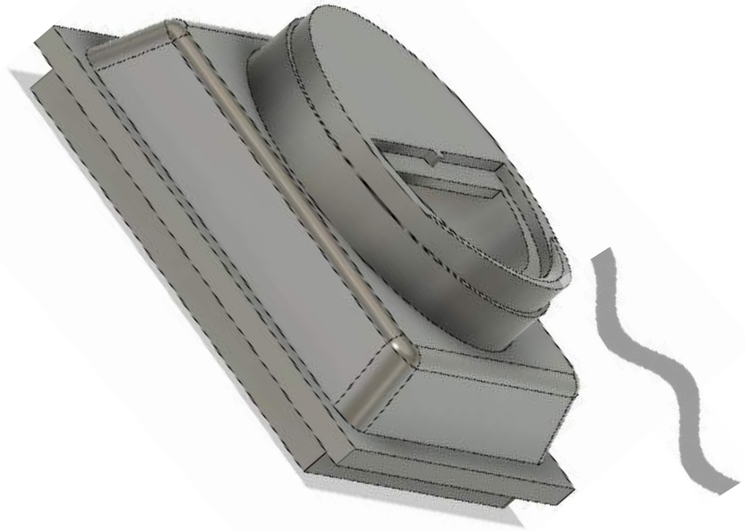




Rotate the whole circle part to break the foil



Rotate the top part to open the closure



Chunky food

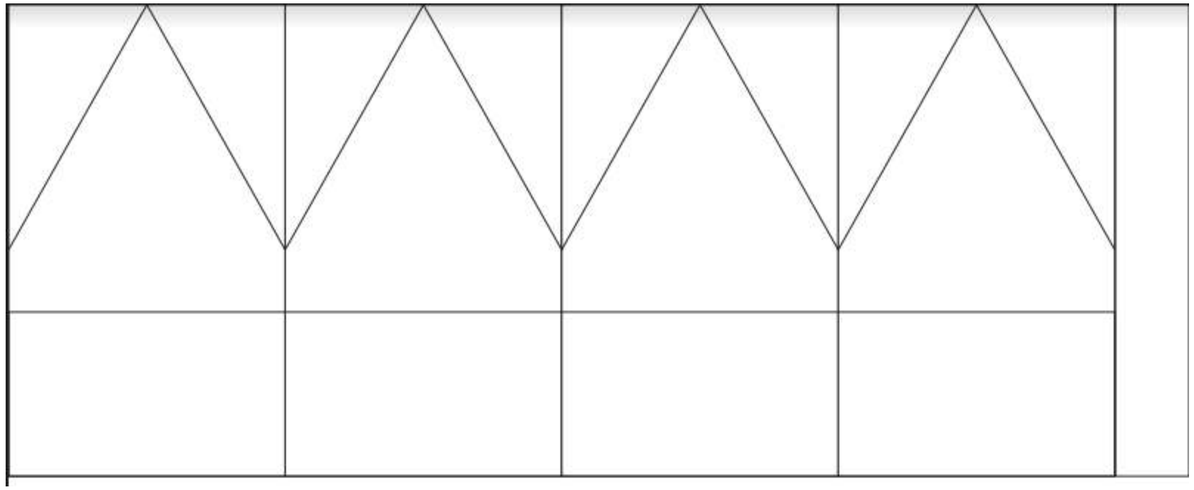
Chunky food

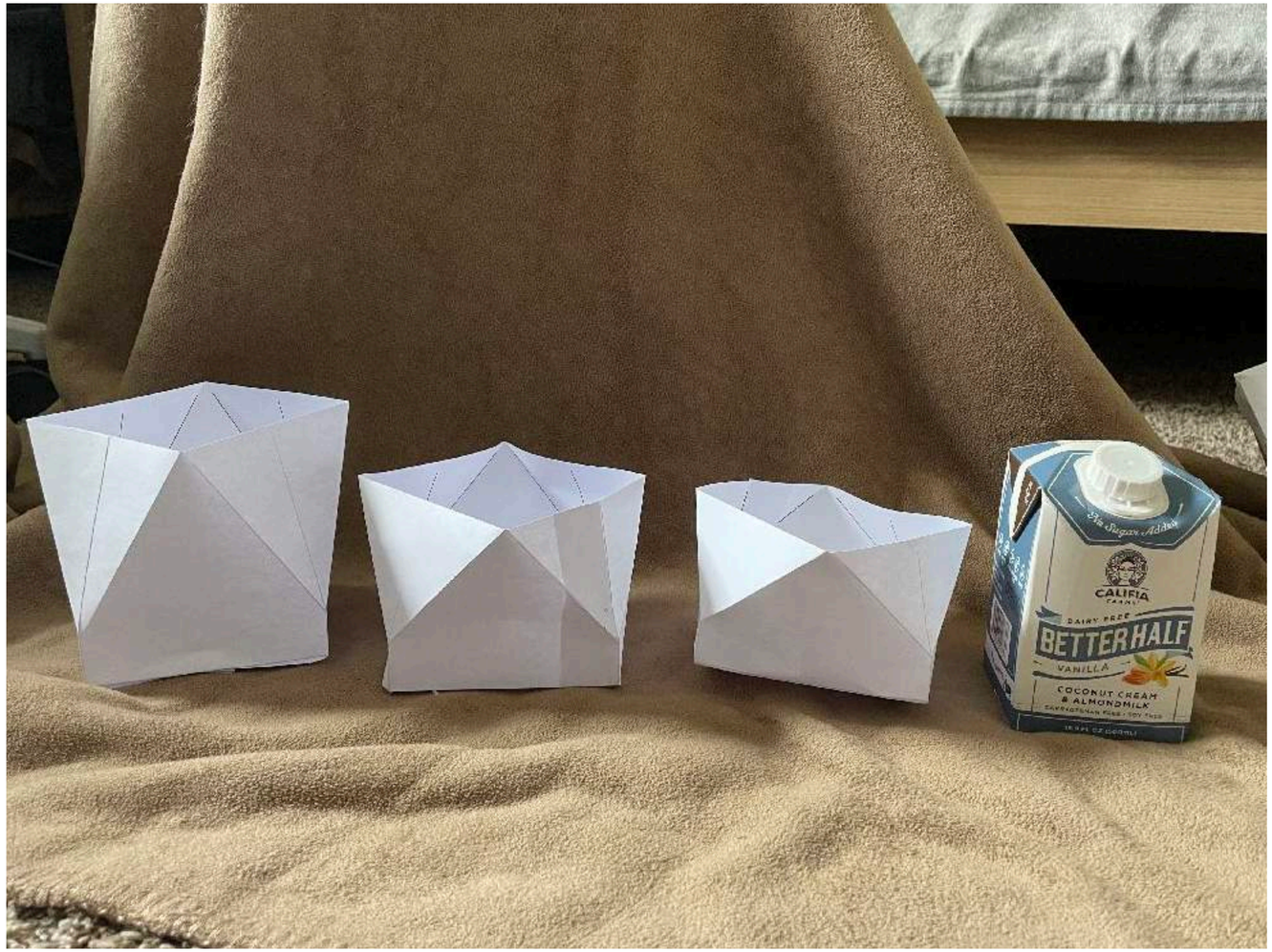
Food that need to be taken out with utensils such as canned carrot, pineapple and peach

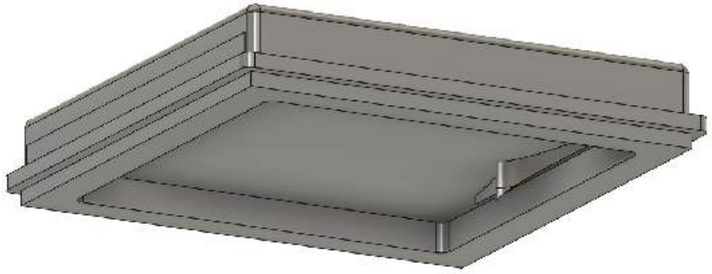
Design requirements:

shorter design
big opening enough for utensils to get in
get rid of the extra liquid
resealable

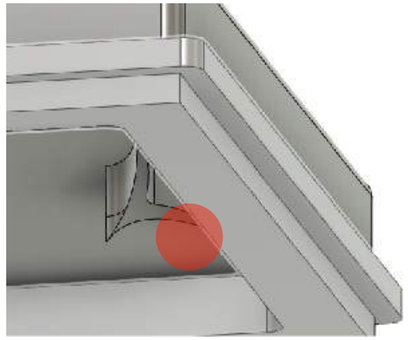
Star



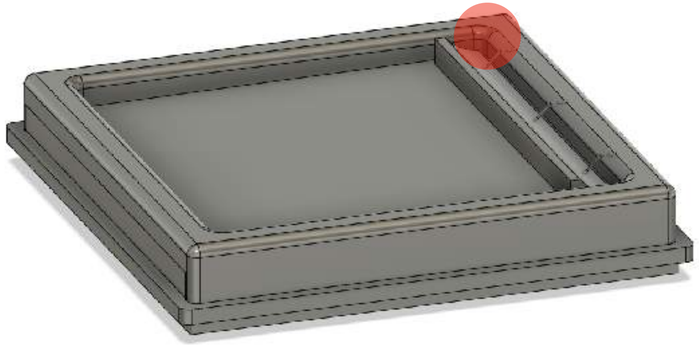

No Sugar Added
CALIFIA FARMS
DAIRY FREE
BETTER HALF
VANILLA
COCONUT CREAM & ALMONDMILK



Stoppers to keep the lid from accidentally falling

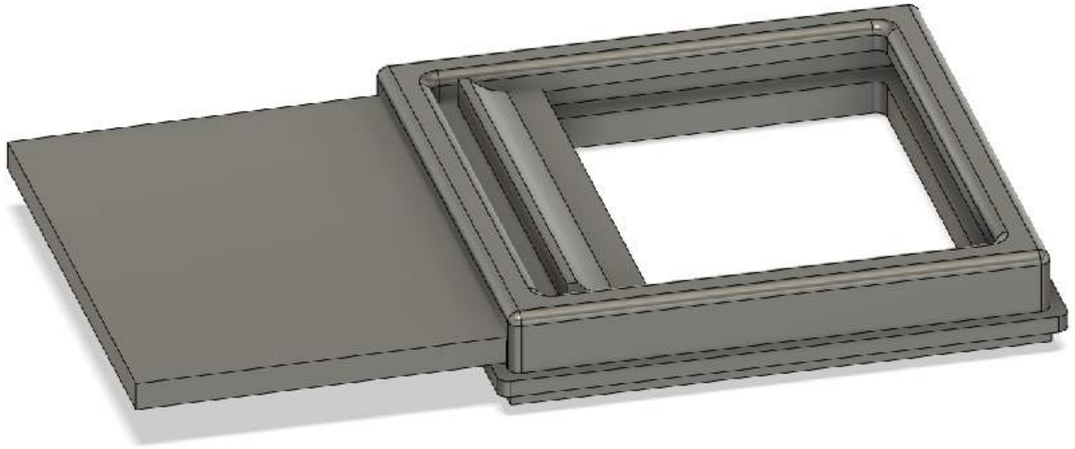


Teeth in the shape of an arrow so that the foil will be broken from the middle and goes to the sides of the packaging,



Pull the tab to break the stopper

Lid in an angle, so the teeth will touch the foil when the lid is pulled

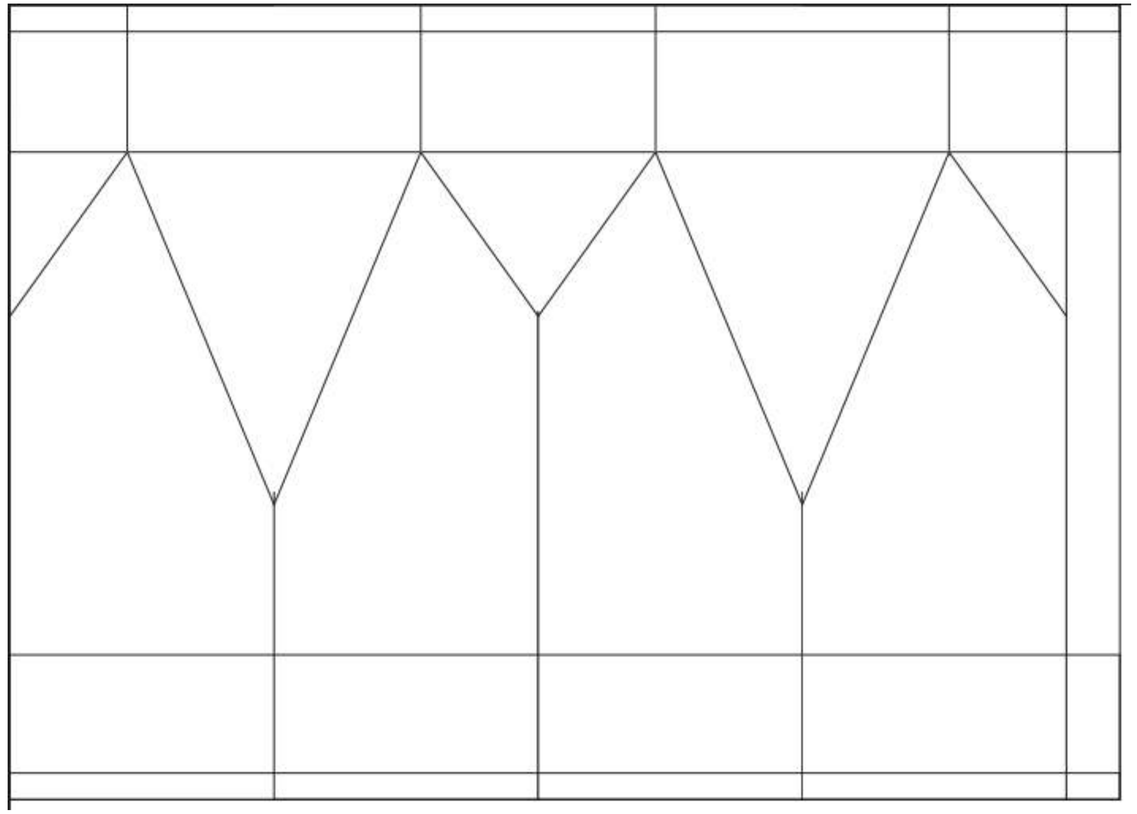


Chunky food

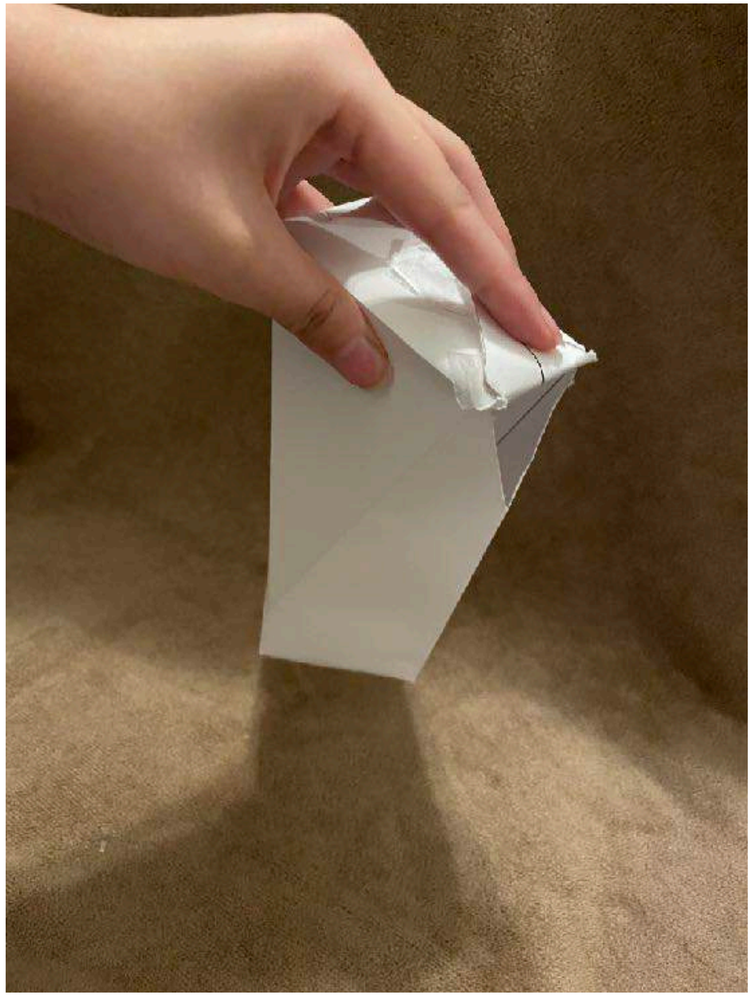
Food that can be poured out such as beans, corns and fruits that are cut in small pieces

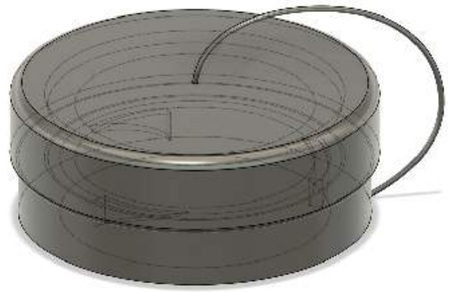
Design requirements:
taller design
closure closer to edge for easier pouring
easy to control
resealable

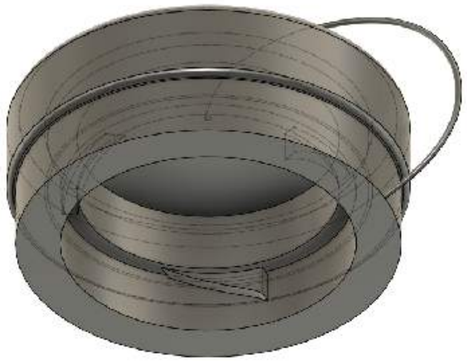
Tilt



No Sugar Added
CALIFIA
DAIRY FREE
BETTER HALF
VANILLA
COCONUT CREAM
& ALMONDMILK







Thank you

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WEEK 14

FEEDING THE WORLD

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FEEDING THE WORLD

We aim to design mid-range, meal-size packages that help people to eat better.

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

01

SIG Technology we incorporate

02

Brand image:
Eat Better

03

Andrew's story:
Ready to Eat

04

Chisonis' story:
Creamy/chunky food

05

External
Packaging Design

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01

SIG Technology we incorporate

There are several latest SIG technologies that help us to design our packaging and make everyone's life better.

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Microwavable Cartoned Food

- replacing metal can and glass
- can be directly opened and heated
- SIG’s alternative to aluminum allows a much safer way of eating and drinking.

https://www.sig.biz/en/packaging/food-packaging/combisafe-details

Perforation for Cartons

- no extra closure and tools needed to open the package (environmentally friendly)
- easy to empty the contents inside
- suitable for chunky and highly viscous products

https://www.sig.biz/en/packaging/food-packaging/combisafe-details

02

Brand Image

We will strengthen SIG’s brand image of being food-caring and people-caring.

Brand Message

Deliver the message to world that SIG care about food and want people to eat better

Our Mission

Eat Better

We design revolutionary aseptic cartons with distinctive functions and forms. These designs aim to help people eat better in both short way and long way.

Mood board

- warm
- appetizing
- comforting

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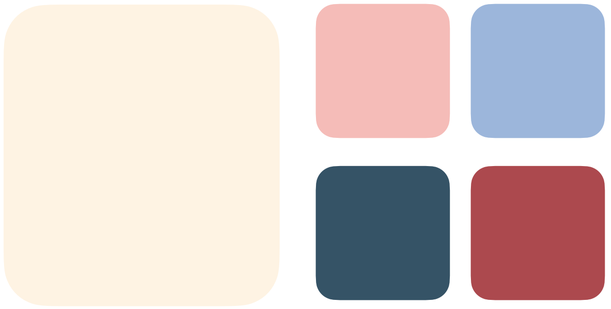
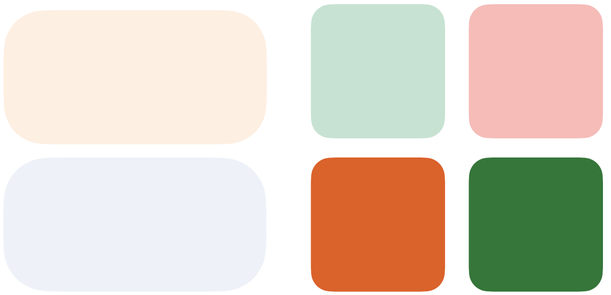
Color Palette

Ready to eat



Creamy food



Chunky food

03

The Story of Andrew

We design microwavable cartons that contain ready-to-eat food that help the world immediately.

Hi, I’m Andrew!

I have been volunteered in American National Red Cross for 5 years.

ABOUT RED CROSS

- a humanitarian organization
- emergency assistance, disaster relief, disaster preparedness education
- hurricane, winter storm, earthquake, home fire, wild fire

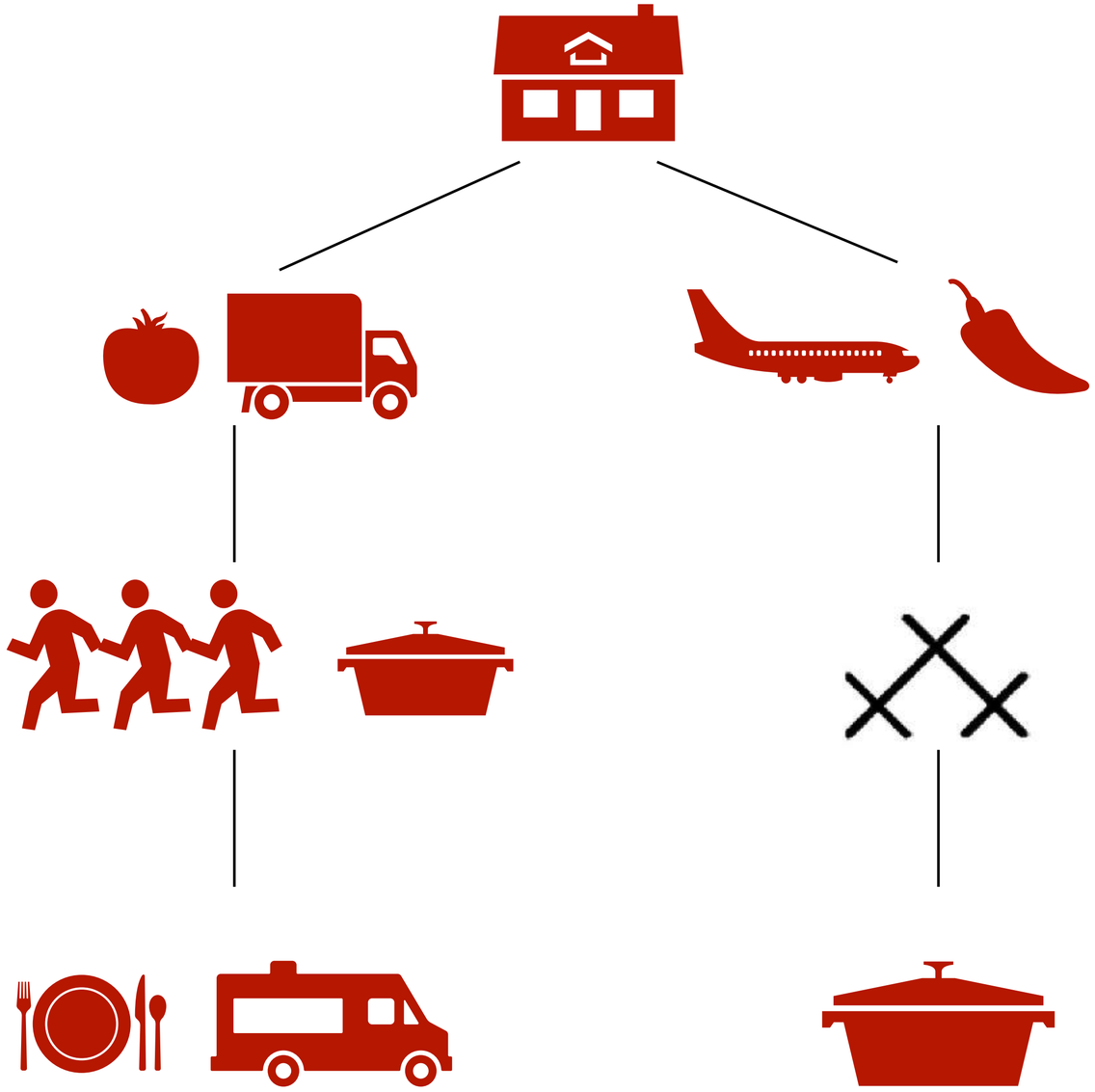
Thousands of people gather in the shelter.

1. Warehouse

2. local shelters

3. local communities

4. distribute food on vehicles



Airdrop

Cook at home

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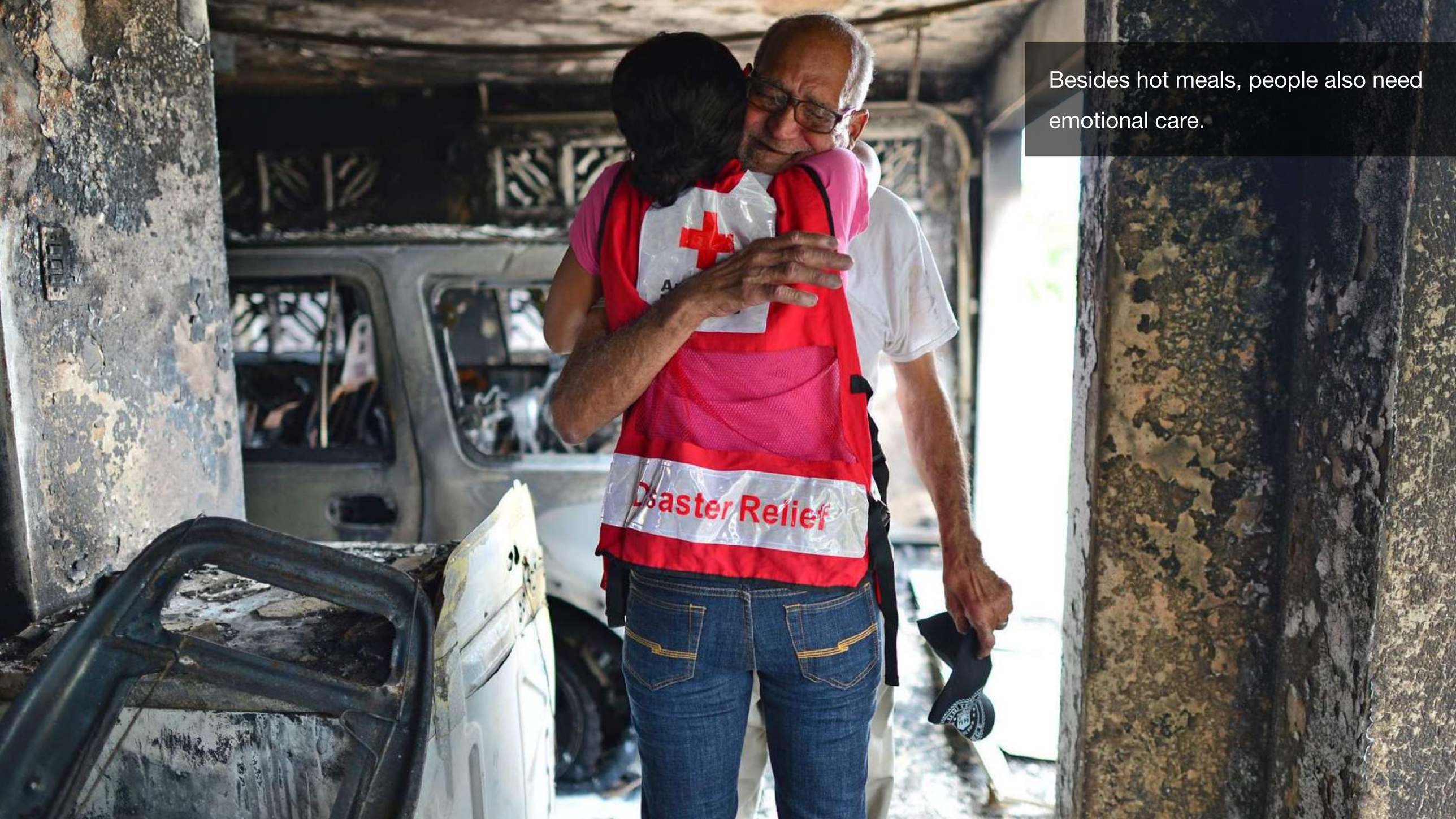
Preparing food is time-consuming.

Volunteers distribute food in polystyrene lunchboxes.



Besides hot meals, people also need emotional care.

People need hot nutritious food and emotional care.

Our Solution

Emergency food container

Disaster relief assistance

Microwavable

Time and cost saving

Emergency Food

- beef/ vegetable stew
- soup
- food mix

Eat Better
Scoop N Tear
1000 ml
Scoop N Tear
750 ml
Scoop N Tear
500 ml

- Special angled perforation lines
- Integrated design
- Foldable utensils embedded

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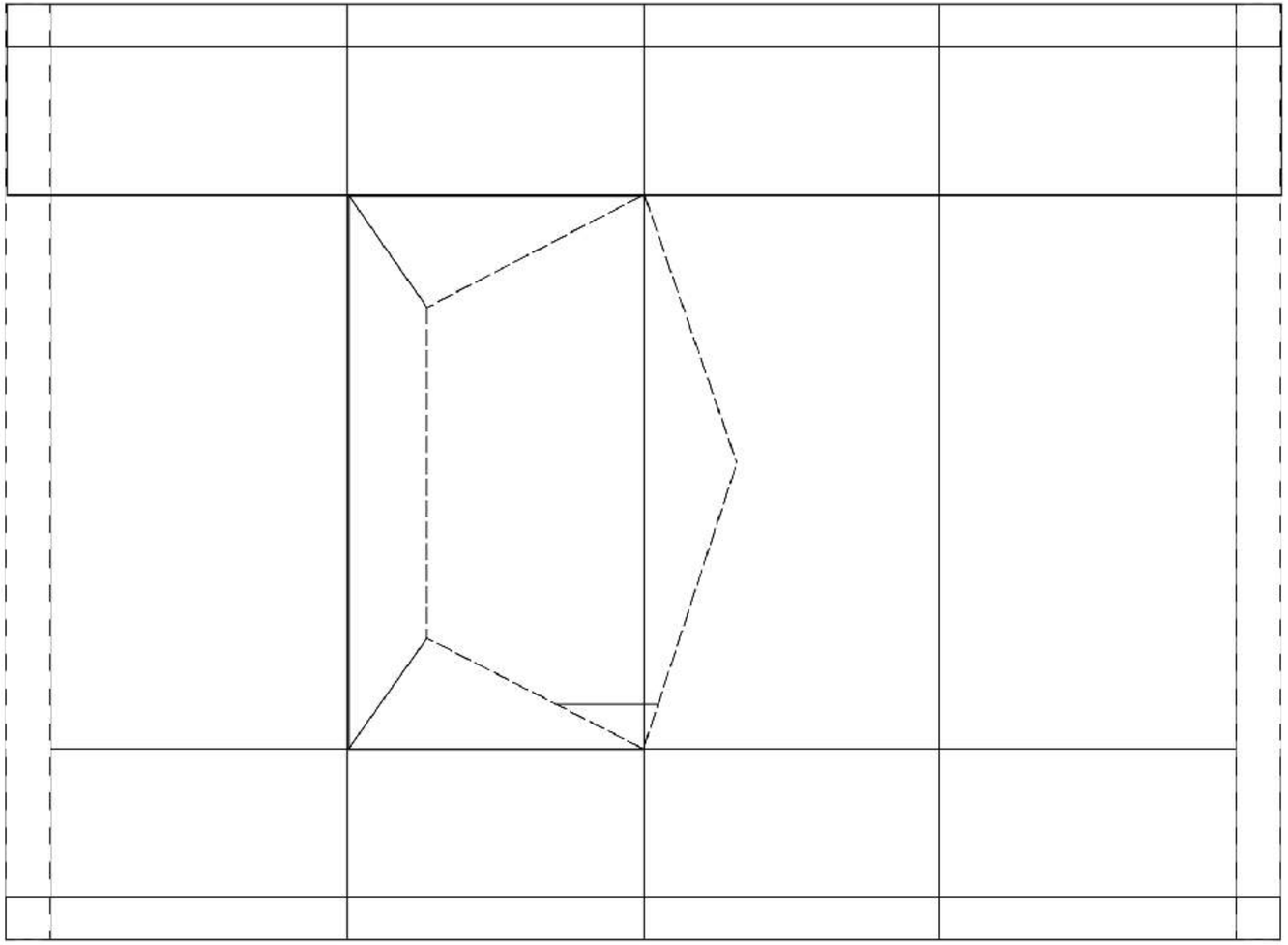
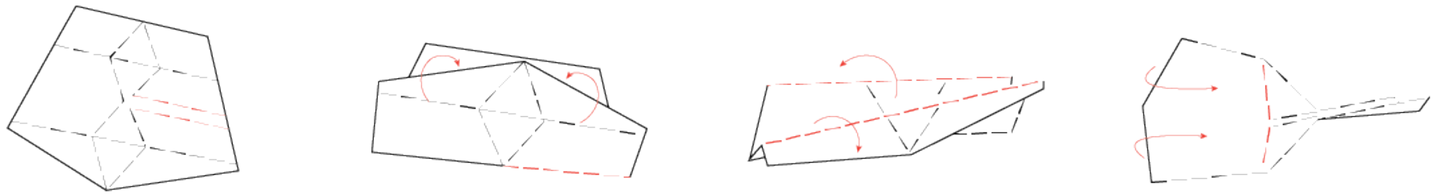
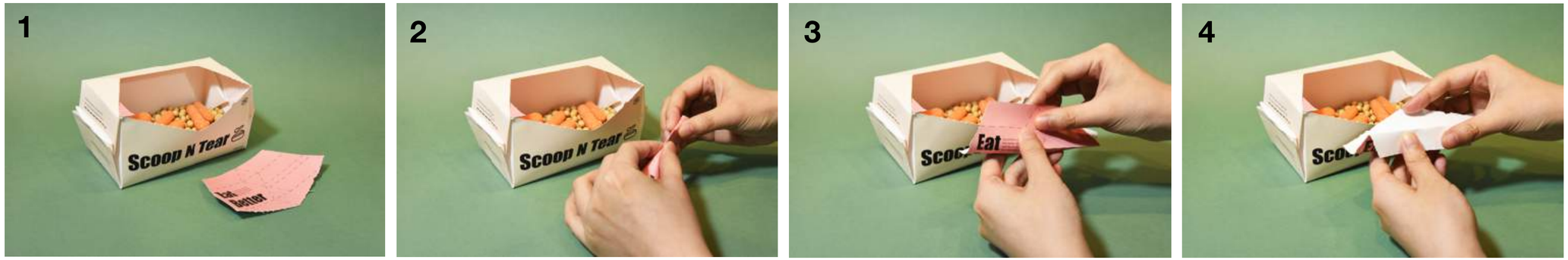
Dieline



How to fold spoon





Graphic Design

- benefit of the packaging
- how to use
- emotional care

Eat Better
SIG
Pop N Tear
750 ml
Eat Better
SIG
Pop N Tear
1000 ml
Eat Better
SIG
Pop N Tear
500 ml

- minimum perforation lines
- longer storage time
- Integrated design

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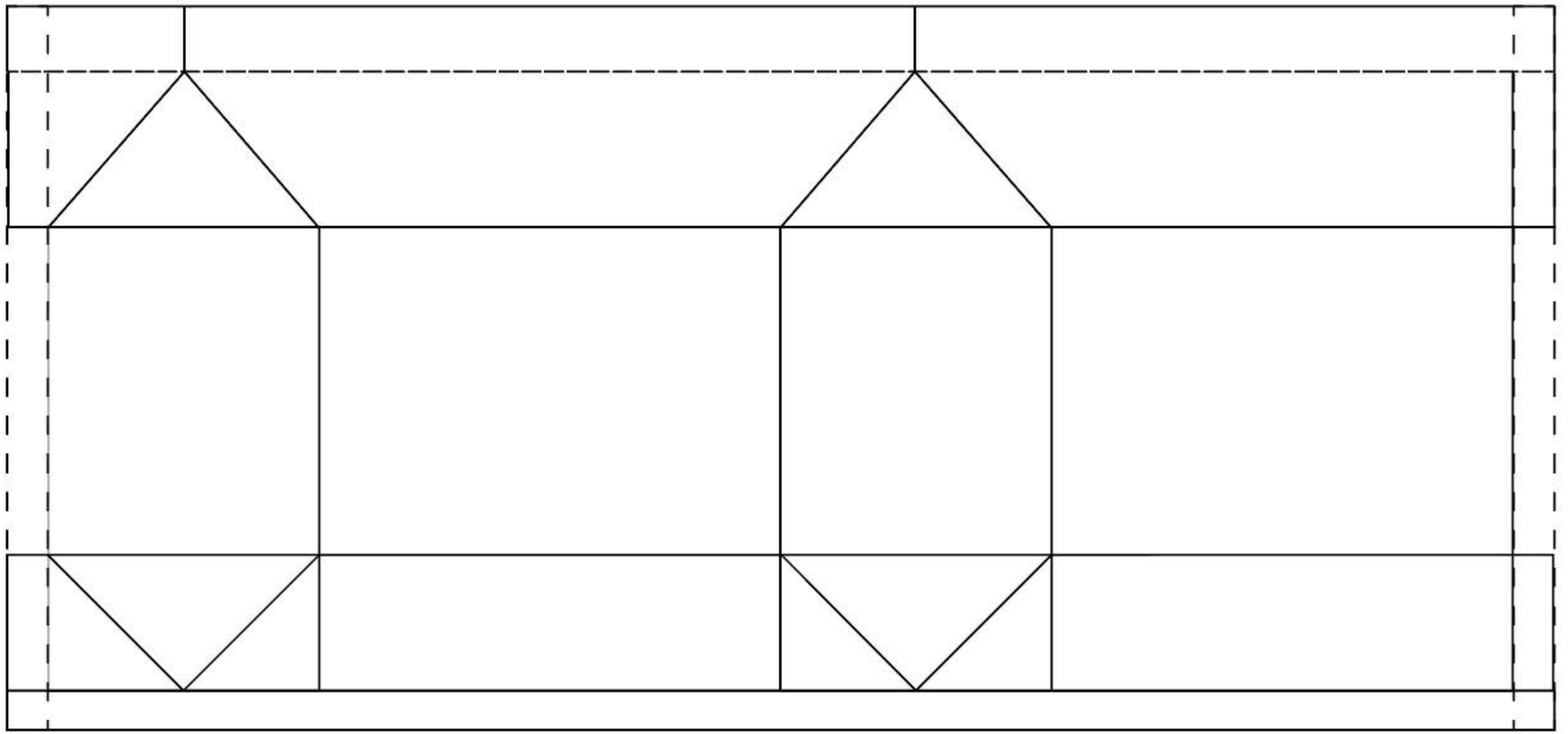
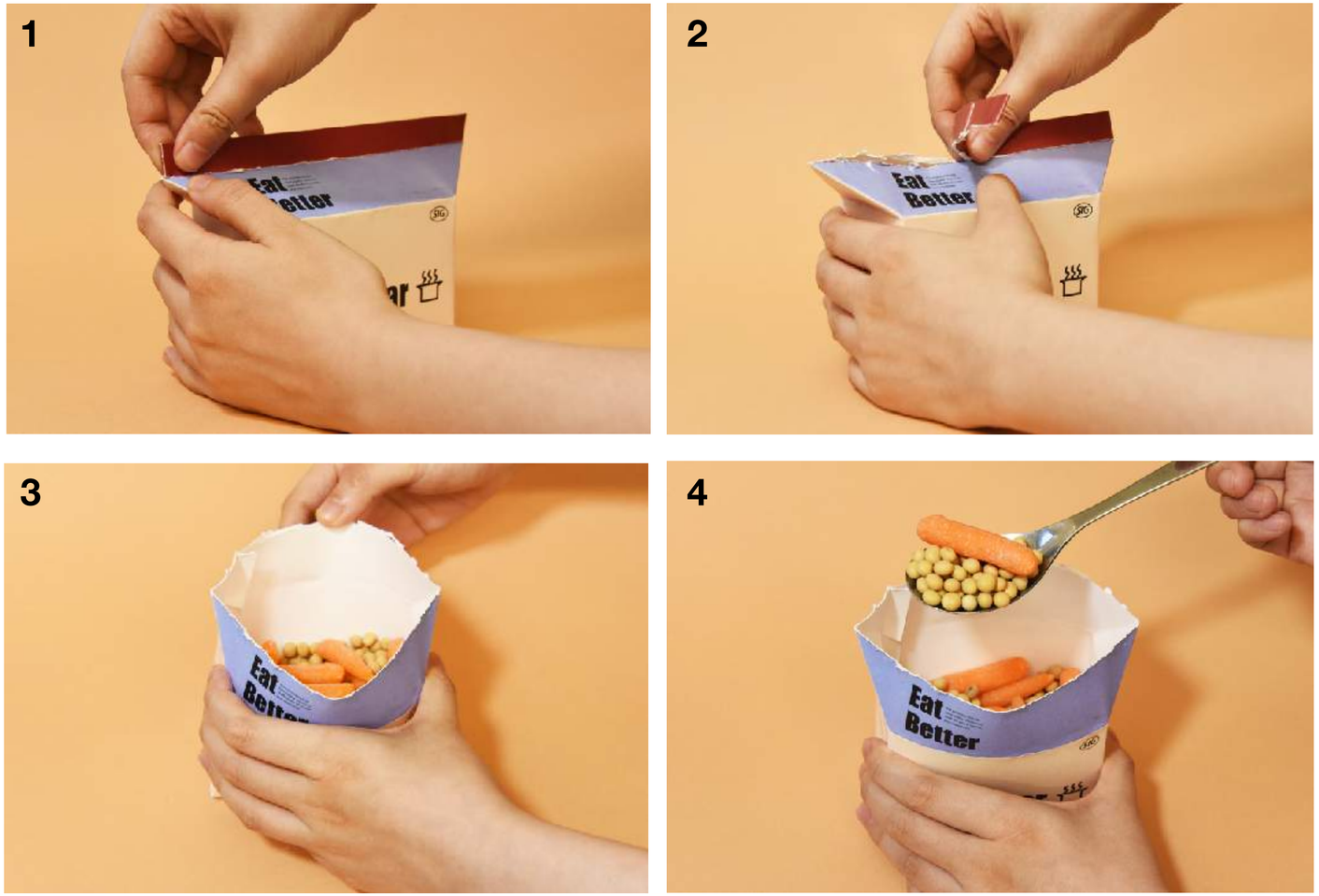
Dieline

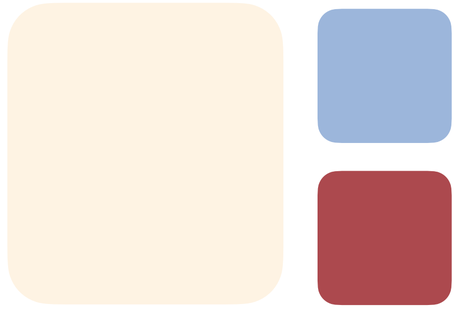


How to use



Graphic Design

- benefit of the packaging
- how to use
- emotional care



Design
Innovation

Special form
Special angled perforation lines
Integrated design
Foldable utensils embedded

Design
Purpose

Container of emergency food
Disaster relief assistance
Microwavable, very convenient
Time and cost saving

Recommended

50°C

Don't Exceed

60°C

Hold the plastic tab and tear
the opening off along this line.

Fold the top along the white line.

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04

The Story of Chisonis

SABRINA XU : yxu5@inside.artcenter.edu SHAYNE SHEN: dshen2@inside.artcenter.edu BERLY DAI: xdai@inside.artcenter.edu

Hi, I’m Chisonis.

I’m a Zambian farmer who plant corn.

ABOUT ZAMBIA

- One of the Least developed countries
- Suffer from drought, extreme poverty and seasonal hunger

https://diggers.news/lifestyle/2018/08/05/zambians-waste-more-food-than-other-sub-saharan-countries-hivos/

FOOD LOSS

- Inefficient manual harvest
- inappropriate storage (no refrigerating equipment)

- Special eating habit- nshima (flour porridge)
- Preparing relish is time-consuming

1. Get water and rinse the vegetables for three times

2. Chop vegetables

3. boil on charcoal

4. Eat

Chisonis wants food that is fast to prepare, easy to preserve and saves her time of farming.

LOVE AND HOPE

LOVE AND HOPE

http://www.bbc.com/news/magazine-

Our Solution

System and multiple packages

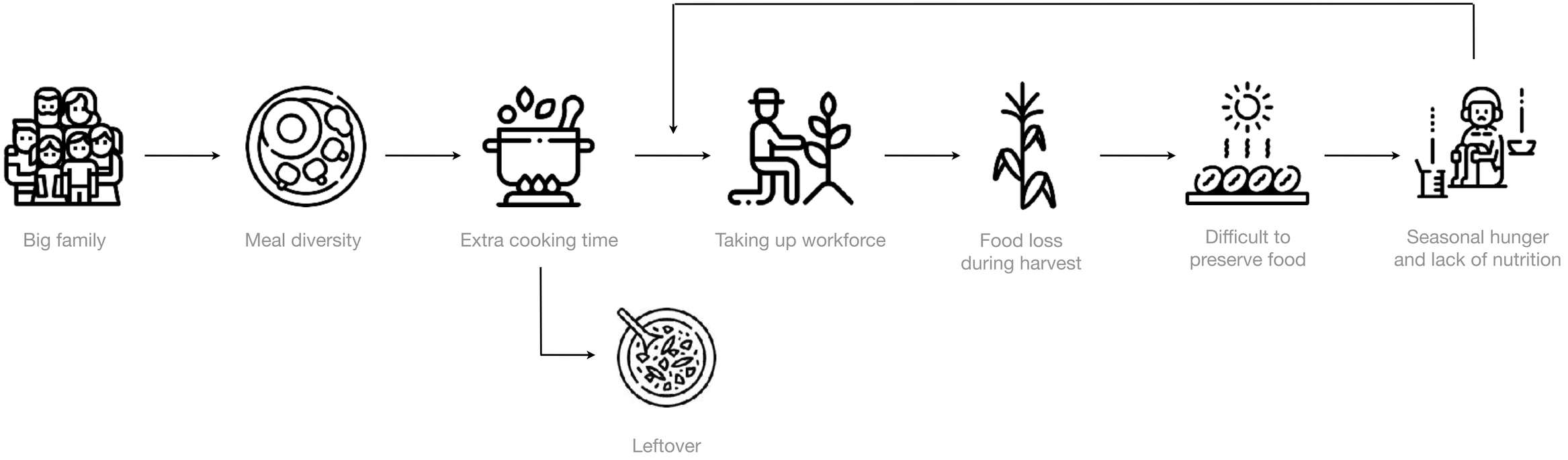
Creamy food

Fresh and nutritious

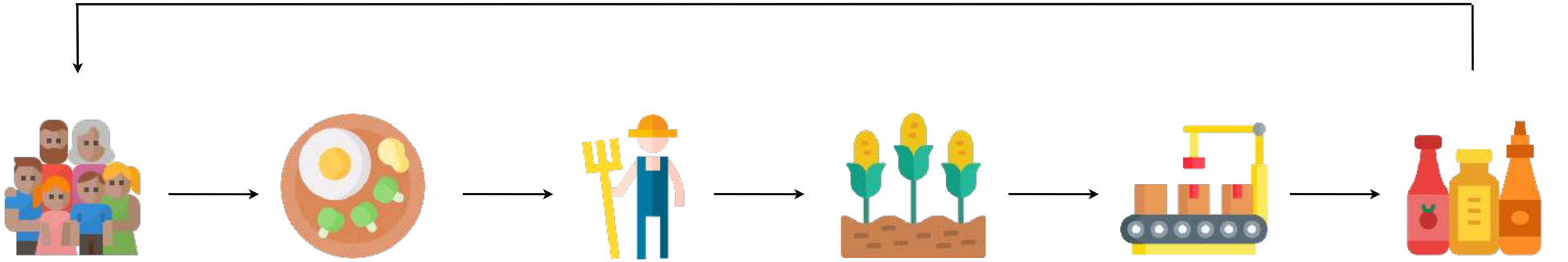
Long preservation

Help with seasonal hunger

System


Big family
Meal diversity
Extra cooking time
Taking up workforce
Food loss during harvest
Difficult to preserve food
Seasonal hunger and lack of nutrition
Leftover

System



Stable food source

Fresh made nutritious food

Free the labor

Reduce leftover

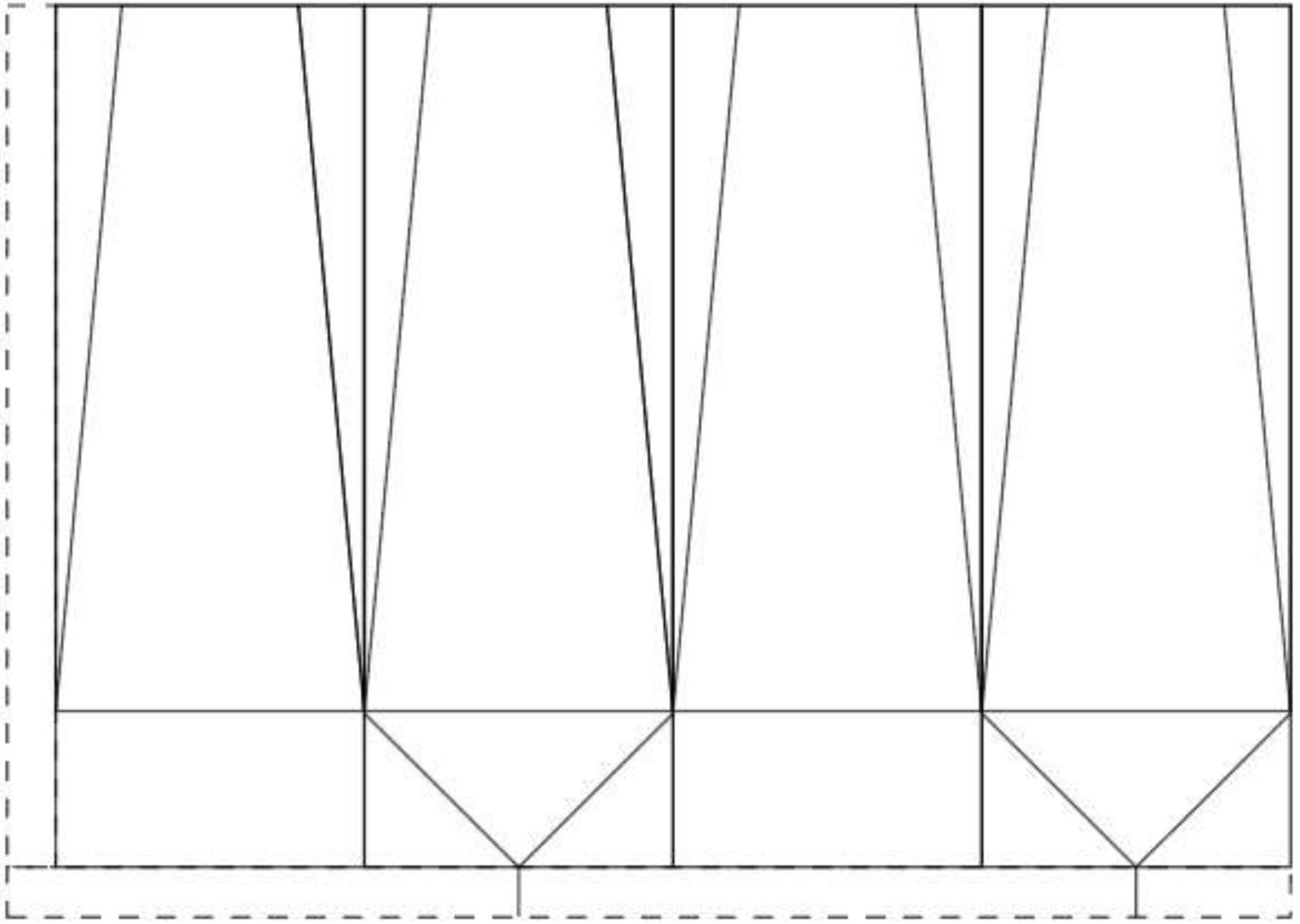
Creamy Food

- relish
- sauce
- cream

SIG
Creamy Twist
Design
Innovation
Design
Purpose
500 ml
SIG
Creamy Twist
Eat
Better
750 ml

- Steady form
- Easy to pour
- creamy food contain small chunks

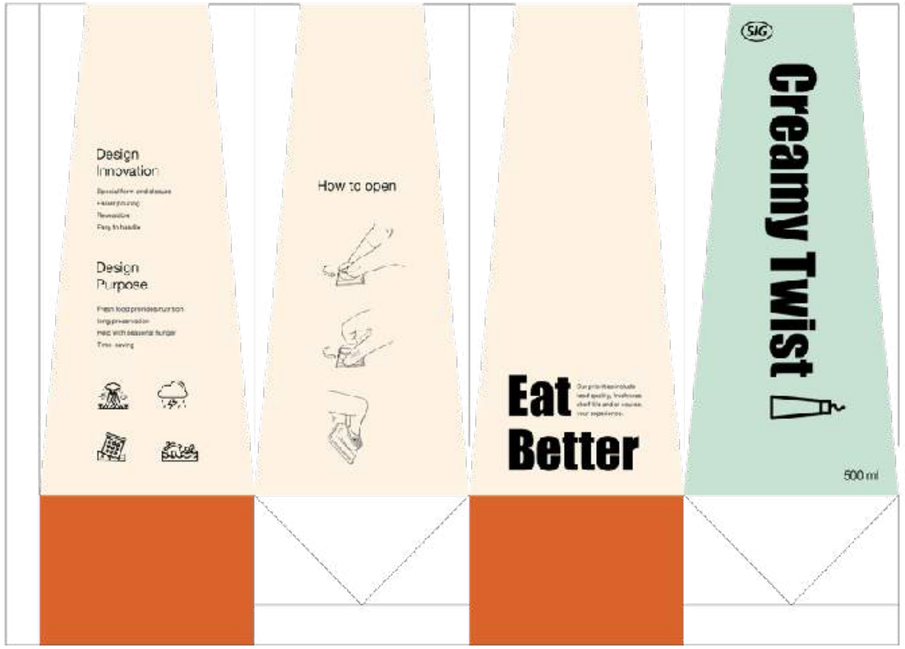
Dieline

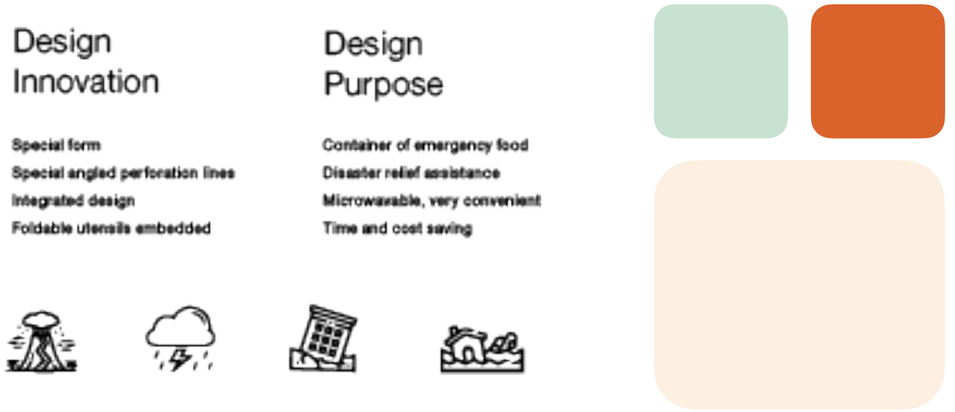


Closure

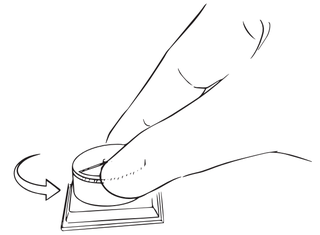
Graphic Design

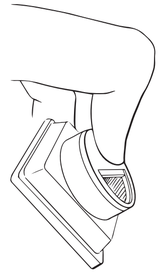
- benefit of the packaging
- how to use
- emotional care





how to use





SIG
Creamy Squeeze
1000 ml
SIG
Creamy Squeeze
750 ml
SIG
Creamy Squeeze

- Ergonomic
- Easy to squeeze and fold
- For refined texture and viscous sauce

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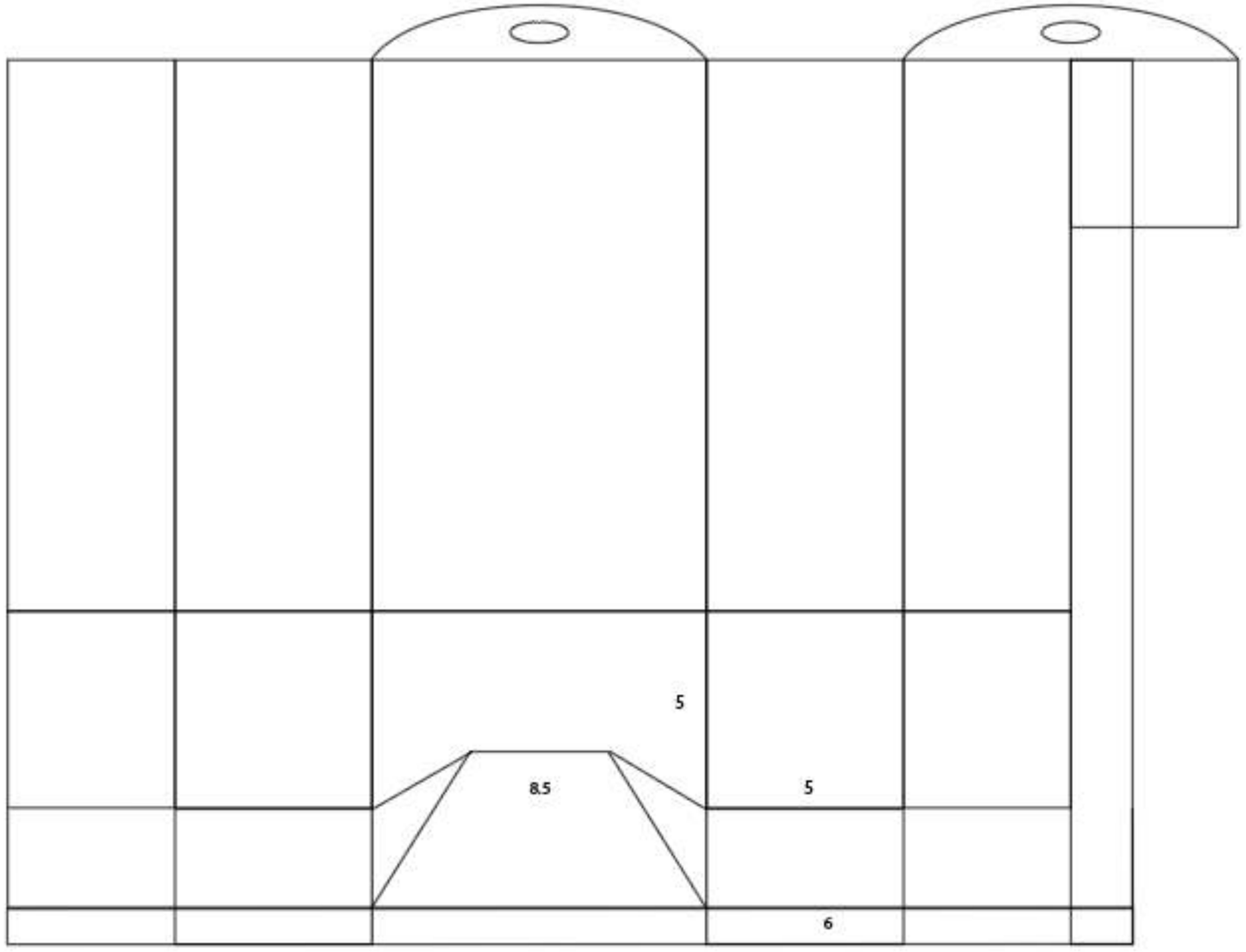
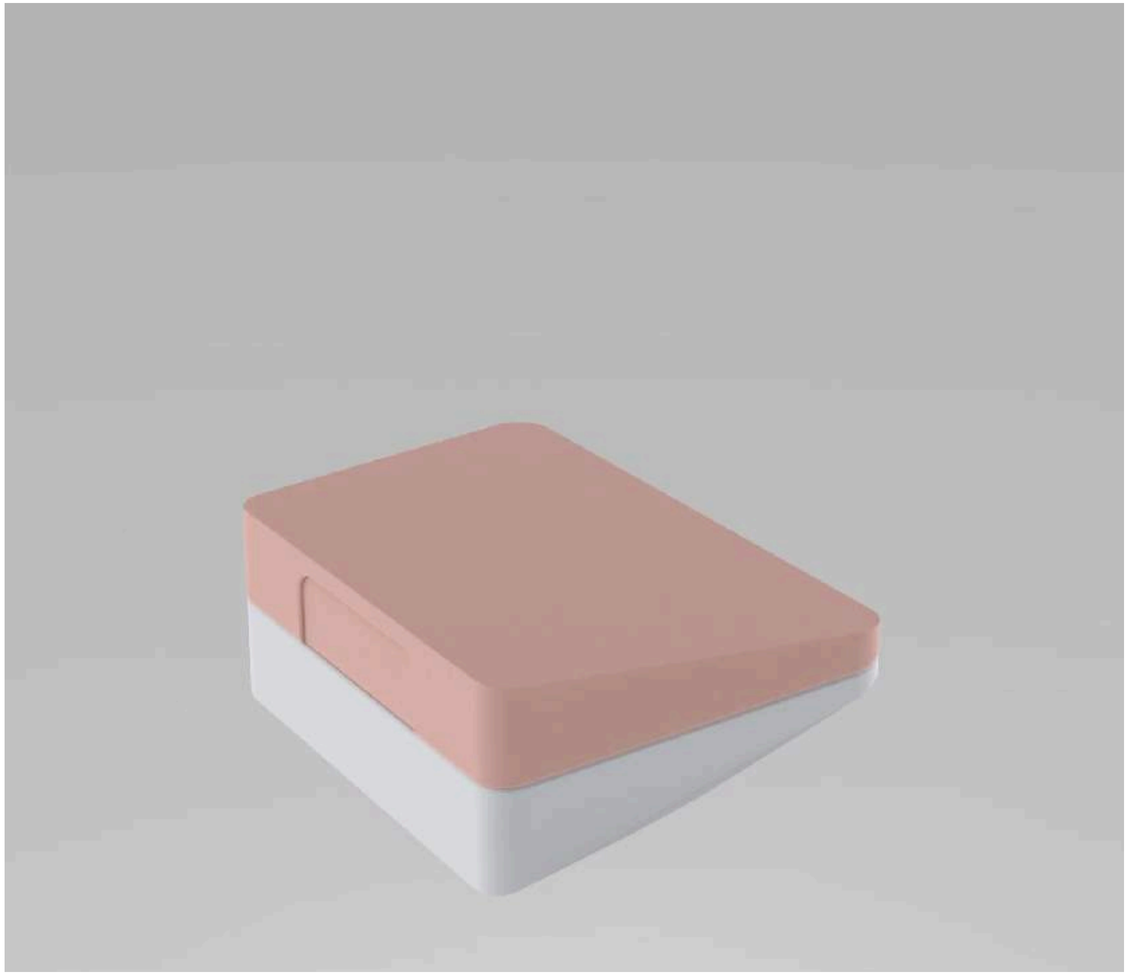
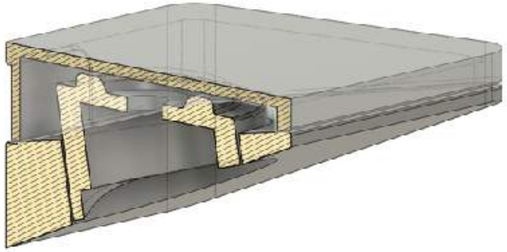
Dieline



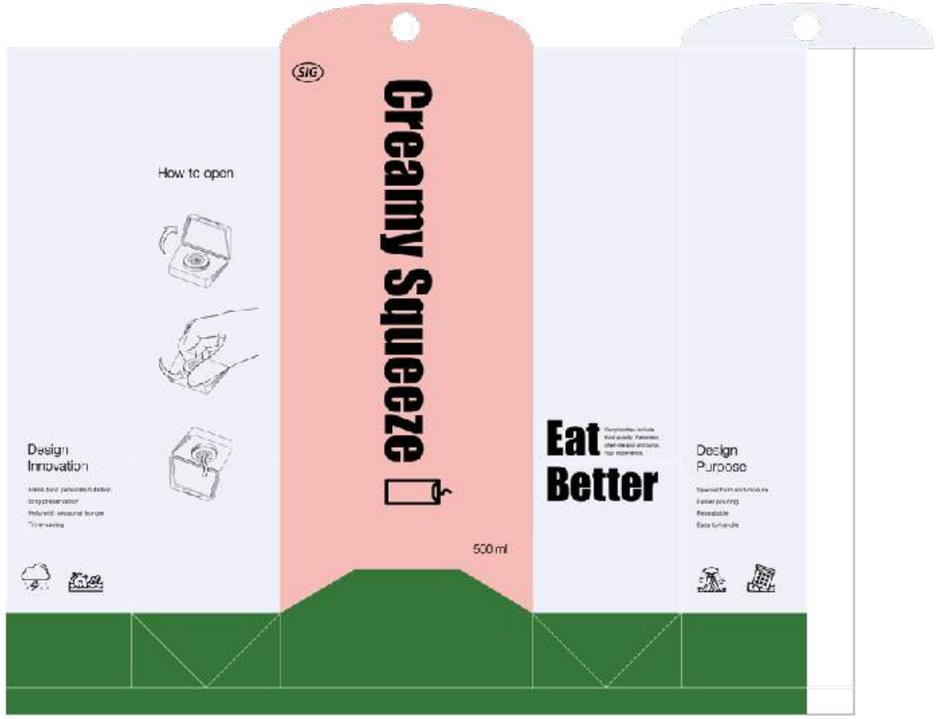
Closure





Graphic Design

- benefit of the packaging
- how to use
- emotional care



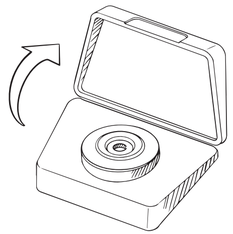
Design Innovation

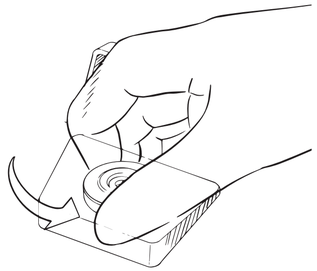
Special form
Special angled perforation lines
Integrated design
Foldable utensils embedded

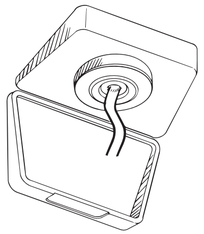
Design Purpose

Container of emergency food
Disaster relief assistance
Microwavable, very convenient
Time and cost saving

how to use







Think Universal

There are many other cultures love to have chunky food other than creamy food

Our Solution

Chunky food / canned food

Fresh and nutritious, long preservation

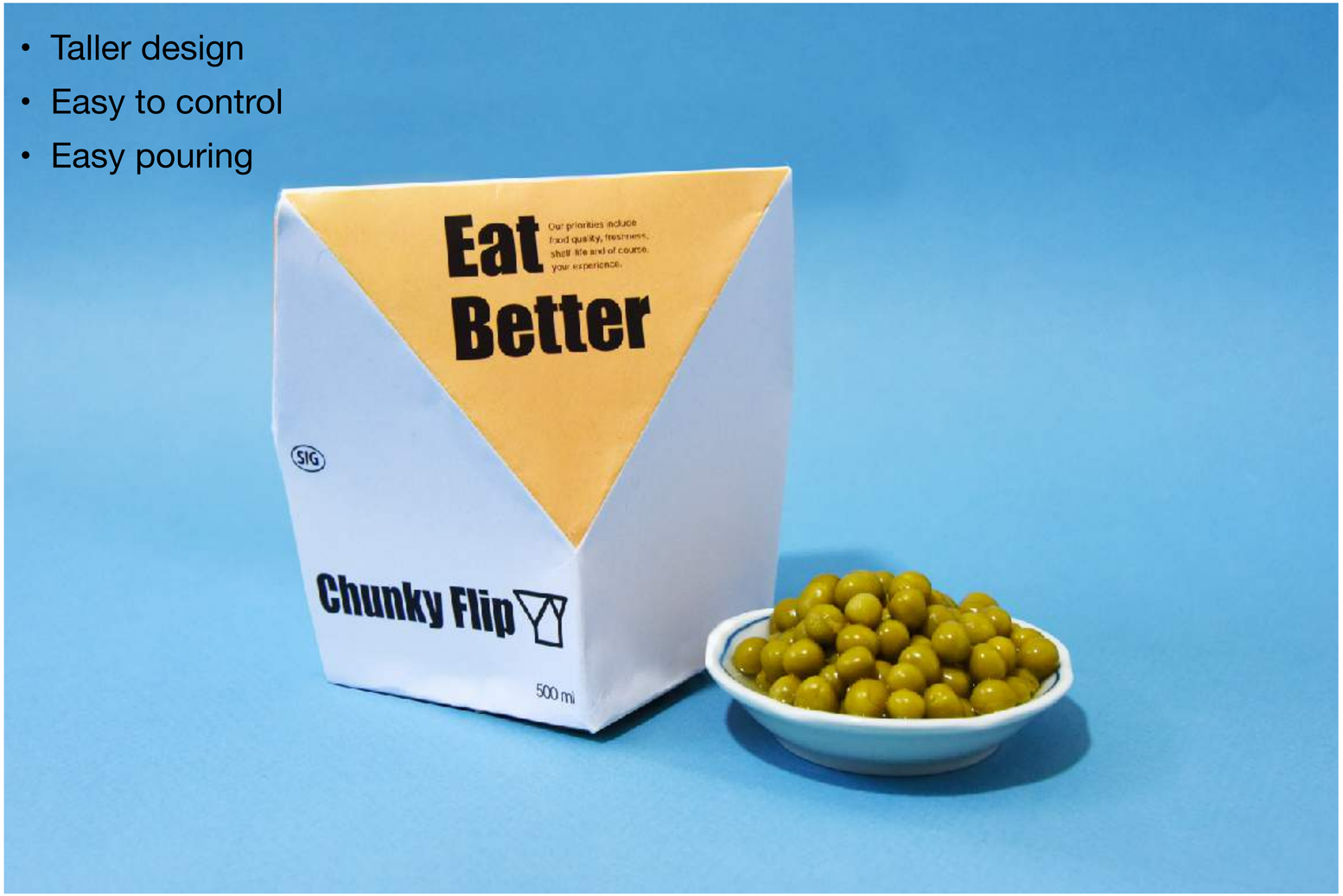
Reduce food loss

Chunky Food

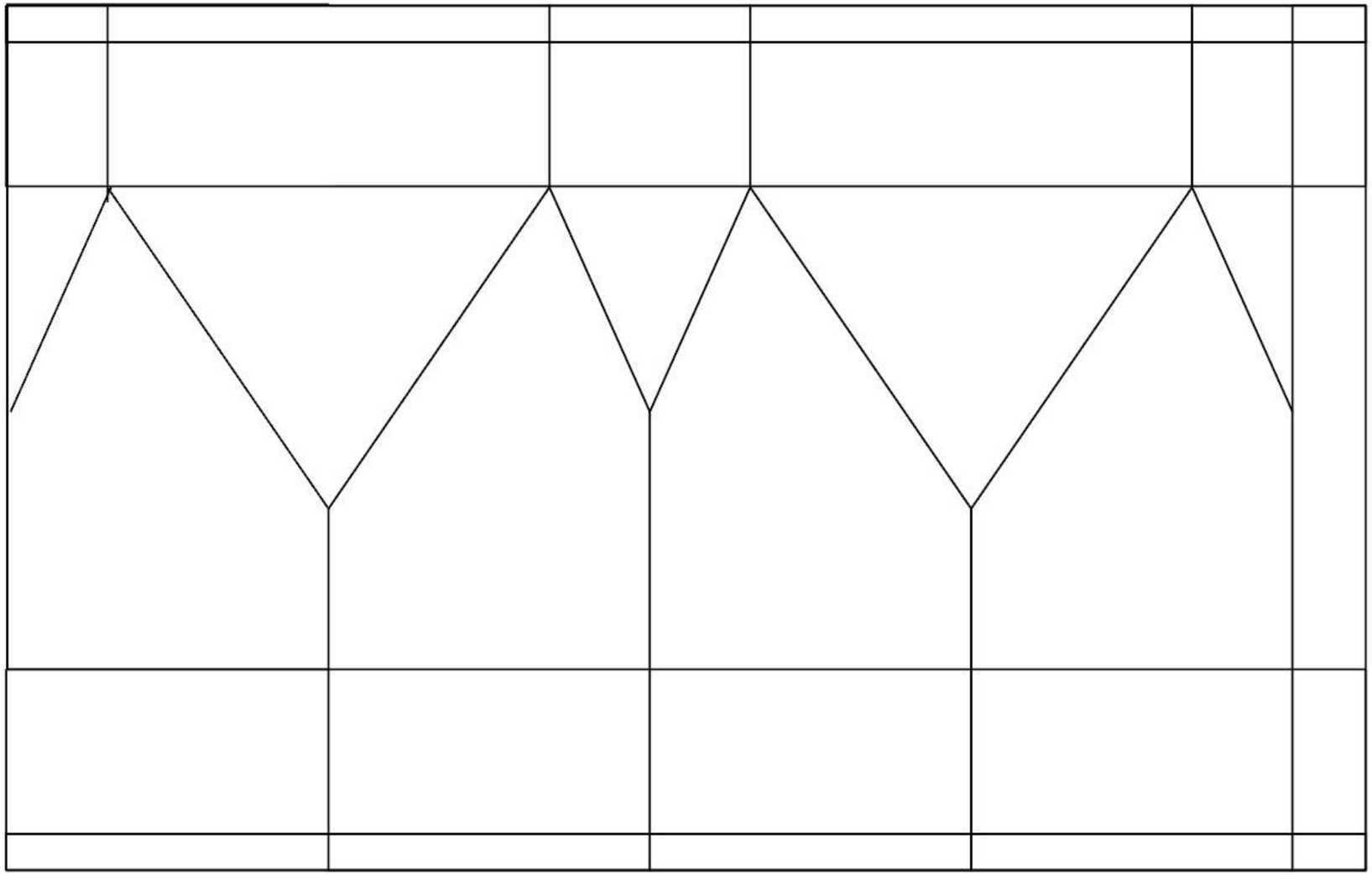
Small chunky food

Eat
Better
SIG
Chunky Flip
1000 ml
Eat
Better
SIG
Chunky Flip
750 ml
Eat
Better
SIG
Chunky Flip
500 ml

- Taller design
- Easy to control
- Easy pouring



Dieline



Closure

Graphic Design

- benefit of the packaging
- how to use
- emotional care

Design Innovation

Special form
Special angled perforation lines
Integrated design
Foldable utensils embedded

Design Purpose

Container of emergency food
Disaster relief assistance
Microwavable, very convenient
Time and cost saving

Hold the plastic tab and tear the opening off along this line.

Fold the top along the white line.

Chunky Food

Large chunky food

Eat Better
How to open
Design Innovation
SIG
Chunky Slider
750 ml
Eat Better
Design Innovation

- Shorter design
- Resealable
- big opening for utensils to get in
- get rid of the extra liquid

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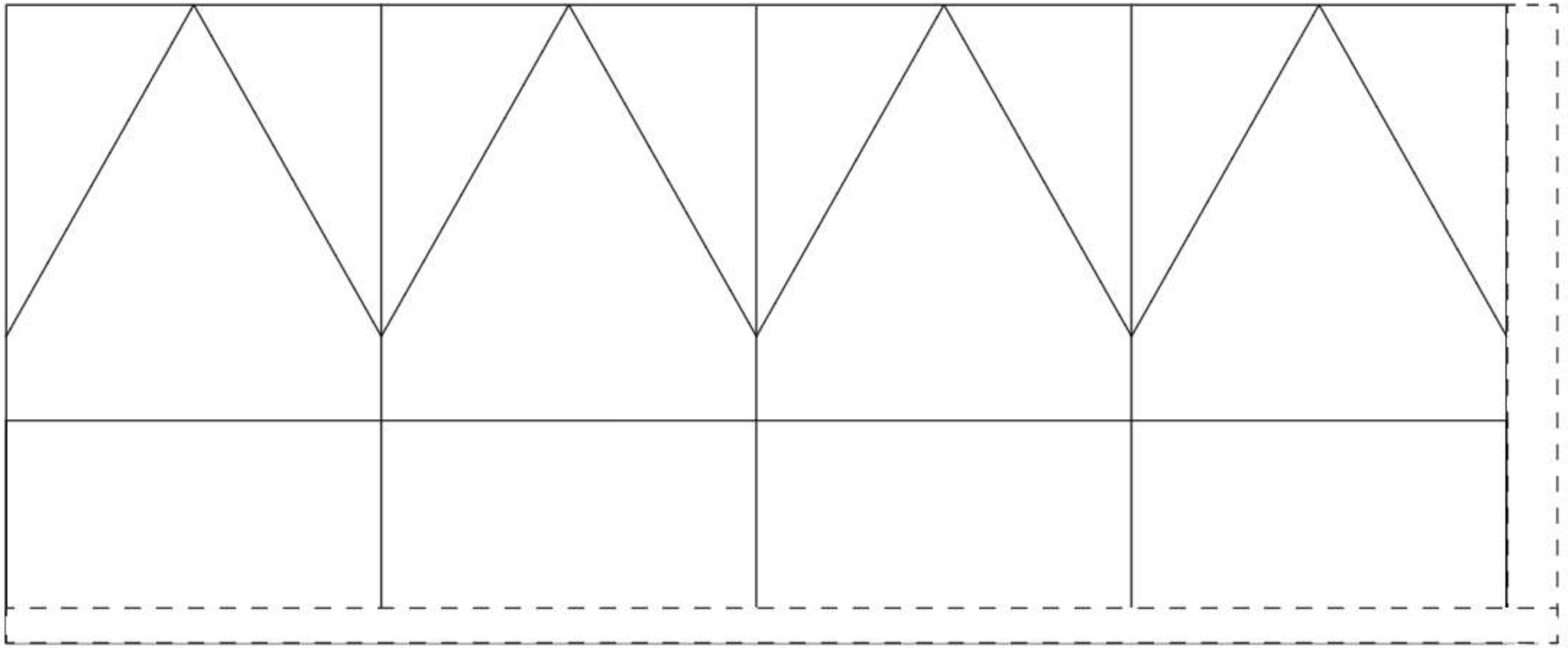
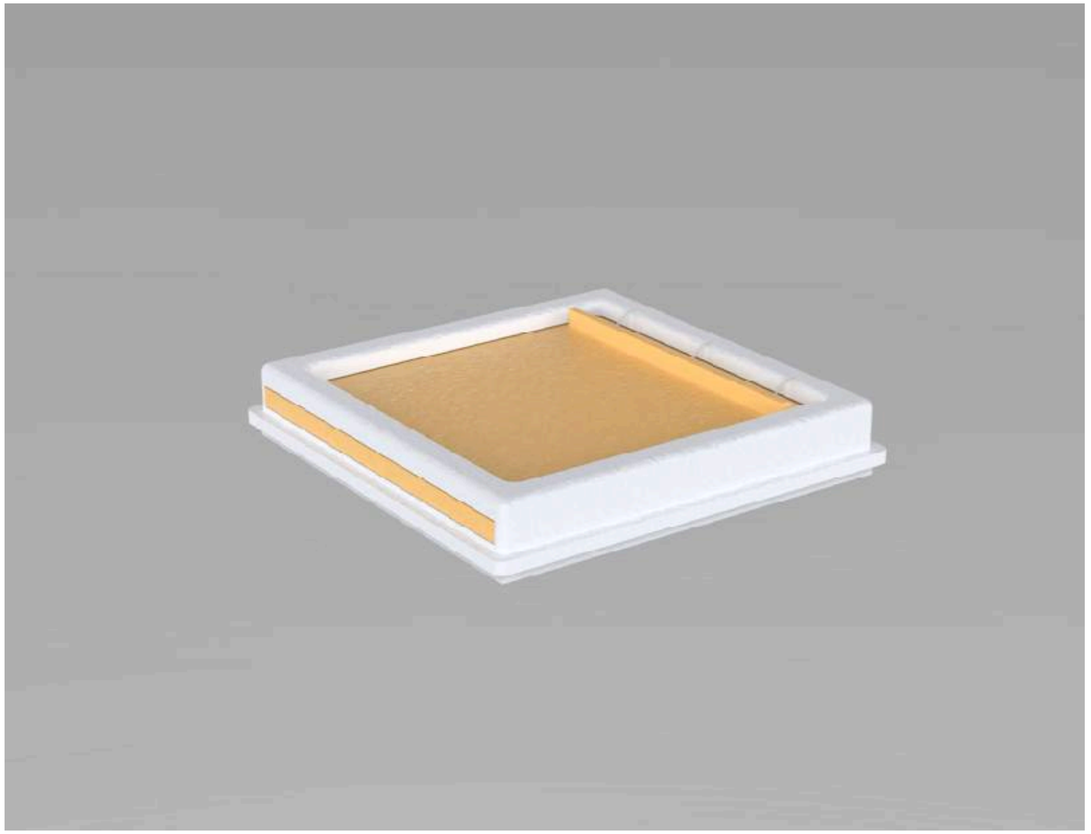
Dieline



Closure



Graphic Design

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Container of emergency food
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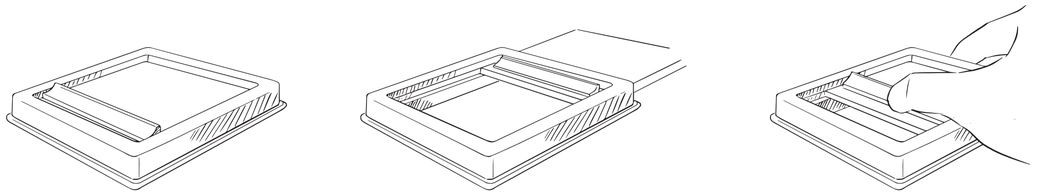
how to use



05

External Packaging Design

We aim to show you possibilities of our product line.

Kroger
PASTA SAUCE
6 Cheese
NET WT 17OZ (500 ML)
Kroger
SLICED PICKLED
Beets
NET WT 17OZ (500 ML)
Kroger
PASTA SAUCE
Tomato and Basil
NET WT 17OZ (500 ML)
Kroger
GARDEN VARIETY
Sweet Peas
NET WT 17OZ (500 ML)
Kroger
SEASONAL MIX
Beef Stew
NET WT 17OZ (500 ML)
Kroger
SOUP MIX
Stew Vegetables
NET WT 17OZ (500 ML)

SLICED PICKLED
Beets
NET WT 15 OZ

TOMATO+BASIL
PASTA SAUCE

GARDEN VARIETY
Sweet Peas
NET WT 15 OZ

TASTE the quality
BEEF STEW
SEASONING MIX

6 CHEESE
PASTA SAUCE

SOUP MIX
Stew Vegetables
Nutrition Facts
Calories 180

SEASONAL MIX
Beef Stew

Nutrition Facts
Calories 180
PASTA SAUCE
Tomato and Basil

Nutrition Facts
Calories 180
PASTA SAUCE
6 Cheese

Beets

Nutrition Facts
Calories 180
Sweet Peas

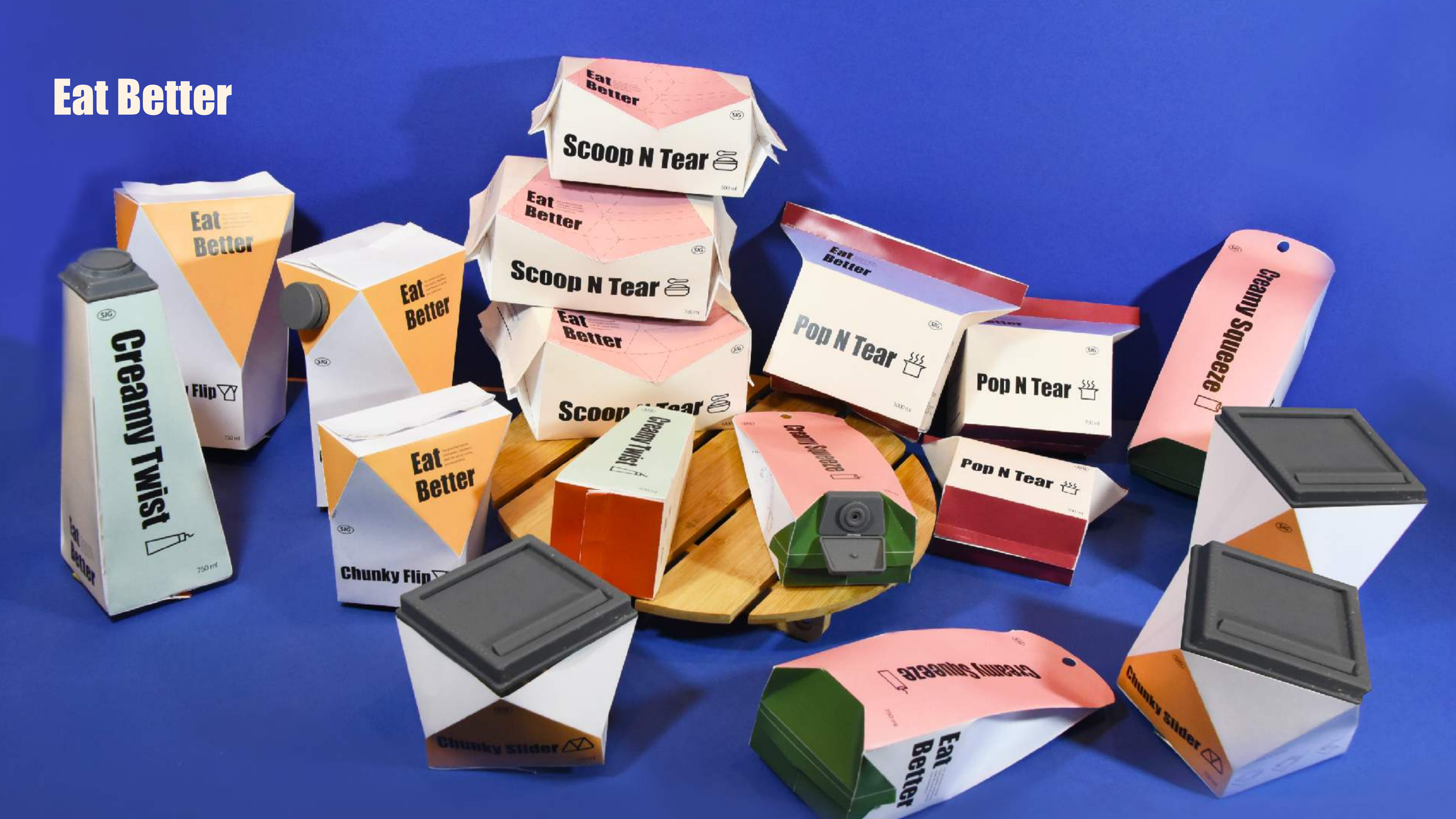
Color Palette

Other brands

Campbell's

Dole®

Eat Better


Eat Better
Scoop N Tear
Eat Better
Scoop N Tear
Eat Better
Eat Better
Pop N Tear
Eat Better
Pop N Tear
Eat Better
Creamy Squeeze
Eat Better
Creamy Twist
Eat Better
Chunky Flip
Eat Better
Creamy Twist
750 ml
Eat Better
Flip
750 ml
Eat Better
Chunky Slider
Eat Better
Creamy Squeeze
Eat Better
Chunky Slider

Scoop N Tear

Pop N Tear

Creamy Twist

Chunky Slider

Chunky Flip

Creamy Squeeze

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FEEDING THE WORLD

THANK YOU!

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