

AYUSHI
SHAH

DESIGN PORTFOLIO 2021



ayushi0607.wixsite.com/designs

ayushi0607@gmail.com

+1 347 251 4463

linkedin.com/in/ayushi-shah0607/

CONTENTS

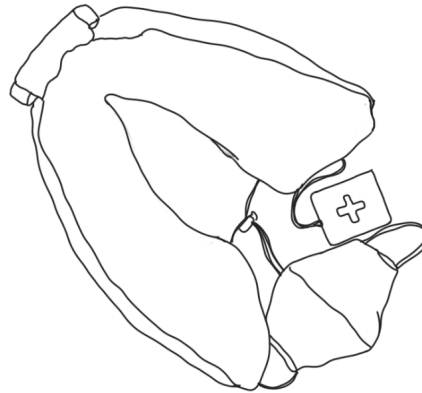
1



GLOBETROTTER

Design for play

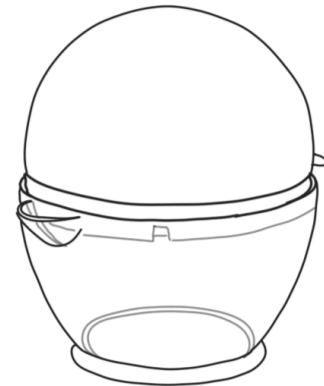
2



ALLERPACK

Design for food allergies

3



KLO

Design for an aspirational brand

GLOBETROTTER

The goal of this project was to explore interactive objects that promote fun, investigation and creativity and to finally design an imaginative experience for kids.

Personal Project

Spring 2020



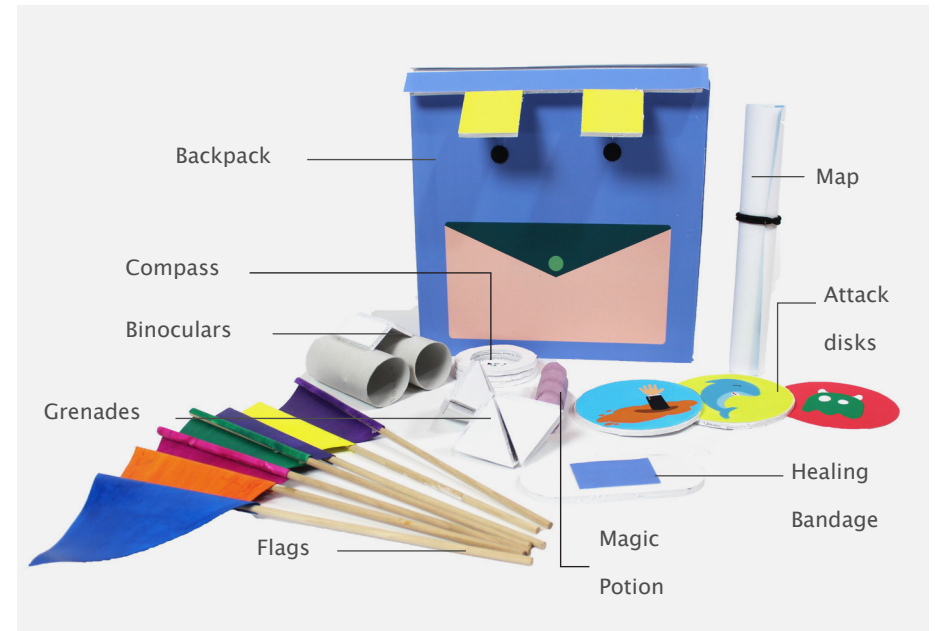
DESIGN INSPIRATION

The initial inspiration for this project was my childhood memories of adventure play and imagination.



IDEATION

Based on the inspiration, a collection of objects were designed for an imaginative adventure experience.



AGE GROUP RESEARCH

The product age group chosen was 4–6 years old based on the following research –



Problem Solving and independent decision making ability



High energy and love for physical movement



Use of imagination and some realism to create a story line

MARKET RESEARCH



Observations –

Majority of the toys on the market were outdoor based

They were mainly based on scientific observation

The products mainly consisted of realistic objects like binoculars, compass, whistle, etc.

Components are mainly made of plastic

DESIGN OBJECTIVES

Based on the research, the following design objectives were established for further development of the product –



IMAGINATIVE



PROBLEM SOLVING



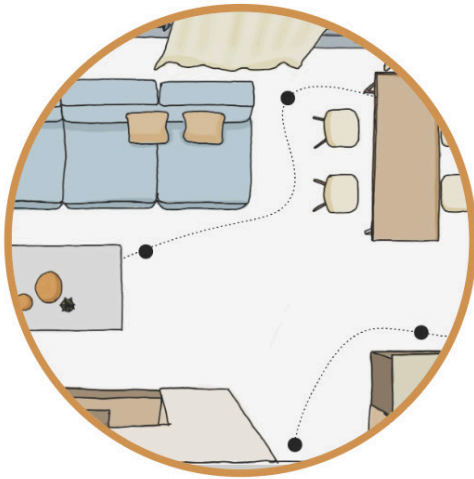
INDOOR PHYSICAL
ACTIVITY

GAME IDEATION

Sketching to establish the working, theme of the game



HOW THE GAME WORKS



Set up the flags around the house



Pack a bag with essentials for the game



Use the map to plot the course and follow it

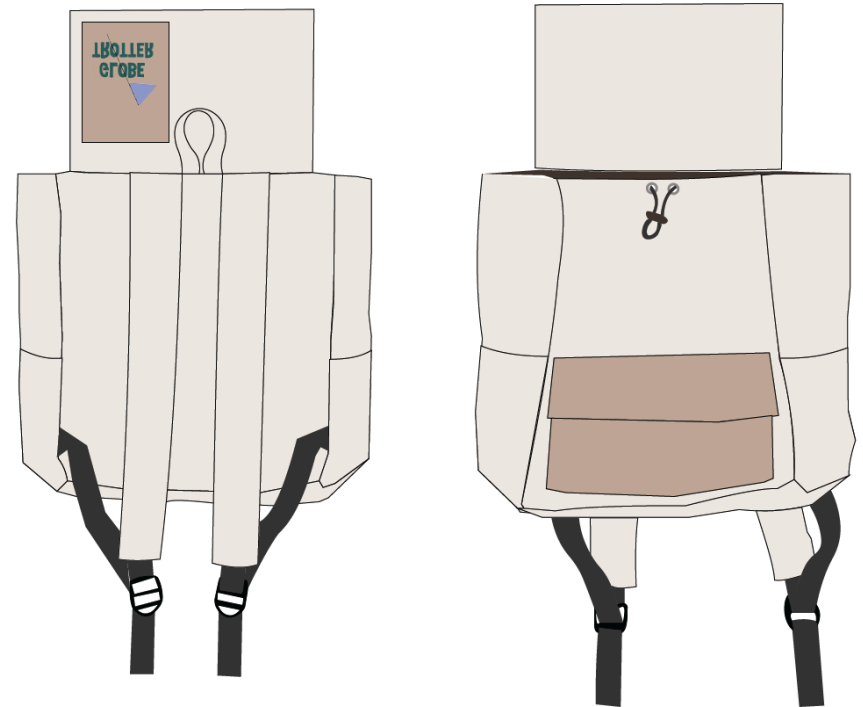


Make it through the entire course and collecting all the flags



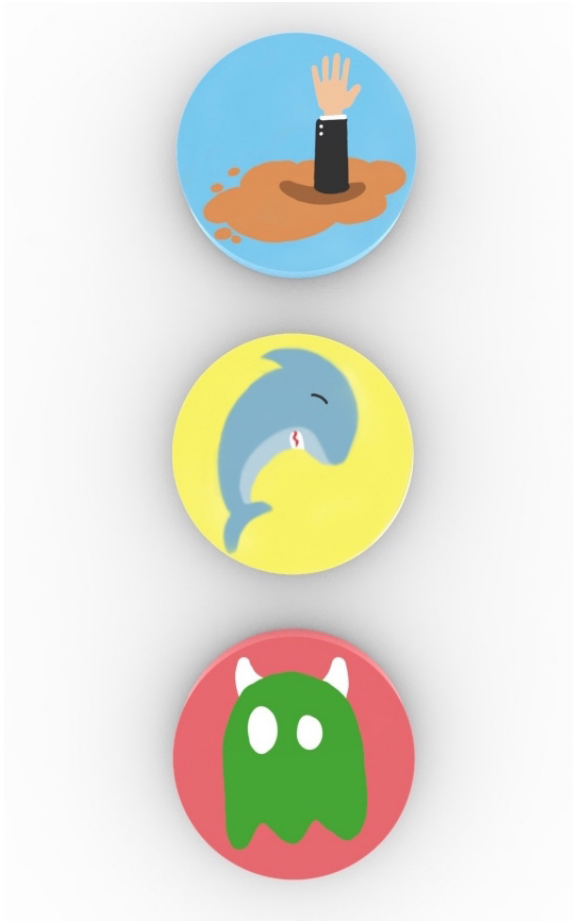
Overcome the obstacles using tools

FORM IDEATION – BACKPACK



Choosing a more neutral color palette so the bag can be customized by the user

PRODUCT COMPONENTS



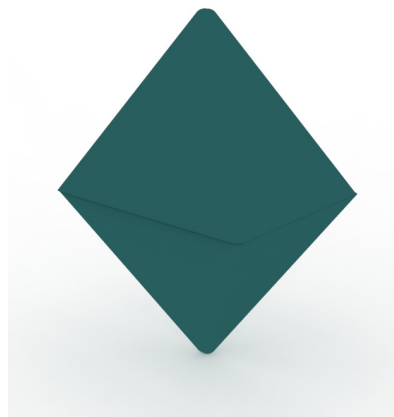
ATTACK DISKS

Made of EVA Foam



FLAGS

Made of porcelain dry erase, wooden dowels, and plastic suction cups



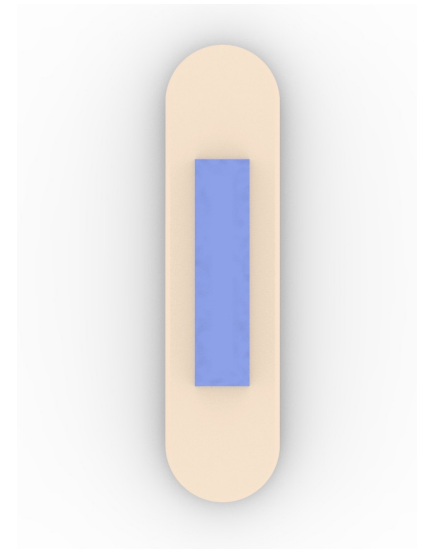
GRENADES

Made of EVA Foam



MAGIC POTION

Made of EVA Foam



HEALING BANDAGE

Made of EVA Foam

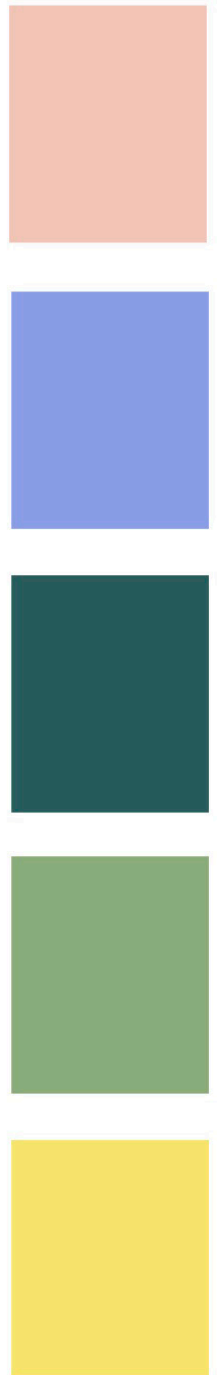
LOGO DEVELOPMENT



Further iteration on one logo concept



Final logo design in color and black and white



Globetrotter

An Imaginative Adventure Experience

The globetrotter is an open-ended game which promotes imaginative storytelling, problem-solving and indoor physical movement. The game can either be played individually or as a competition with friends.



ALLERPACK

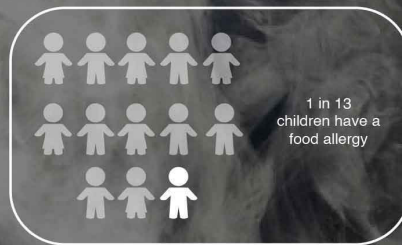
The goal of this project was to research the risks involved in traveling with food allergies and design a product to minimize the risk of a reaction.

Personal Project

Fall 2020



FOOD ALLERGIES AFFECT 32 MILLION AMERICANS



WHAT ARE AIRBORNE FOOD ALLERGIES ?

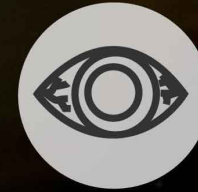
Cooking a food can release particles/proteins into the air which could trigger an allergic reaction in a highly sensitized individual, even without ingesting the food.

Odor of particular food can also lead to anxiety induced reactions due to the way the brain processes the smell. The subsequent anxiety could, in turn, lead to physical symptoms such as an increased heart rate.

SYMPTOMS -



Nasal



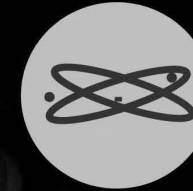
Ocular



Cough and
Wheeze



Skin Rash

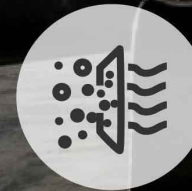


Rare Anaphylaxis
reaction

PREVENTION -



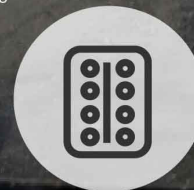
Reduce aerosolized
proteins while
cooking



Using filtering or air
circulation
techniques



Get fresh air by leaving
the area



Take an
antihistamine or use an
inhaler to dull the
reaction



Carry an adrenaline
injector and use it if
there are any signs of
anaphylaxis

PROBLEM STATEMENT

Airborne food allergies can be more dangerous in flights as there is no air circulation and there is close proximity to other passengers.

Therefore, the goal is to create a travel kit to reduce the chances of a reaction trigger for those flying with food allergies.



DESIGN OBJECTIVES



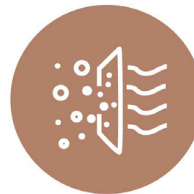
Portable, Discreet

Can be carried easily during travel, does not draw unwanted attention.



Odor Eliminating

Eliminated odor to avoid anxiety induced reactions.



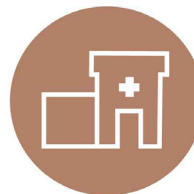
Particle Filtering

Filters and protects from airborne food proteins.



Comfortable, Travel-friendly

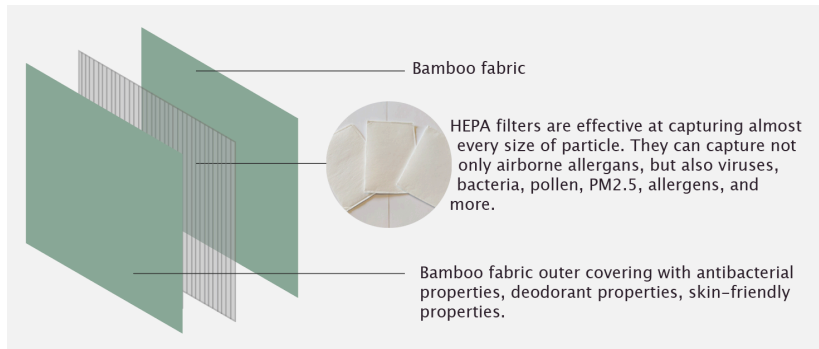
Can be used during long hours of travel.



Emergency Plan

Comes with an emergency plan in case of a severe reaction.

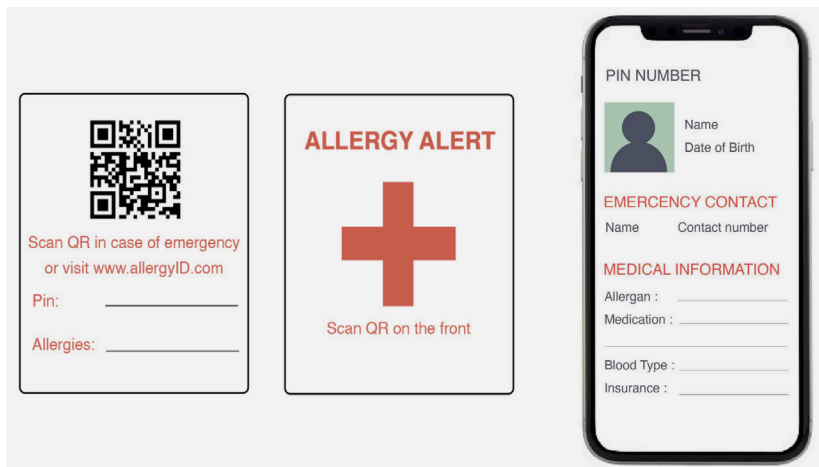
PREVENTION TECHNIQUES



Adapting to the face mask culture with Covid-19, the **filtering technique** would take the form of a face mask.



Keeping the user's comfort in mind, the **odor repulsion** would take the form of a travel pillow.

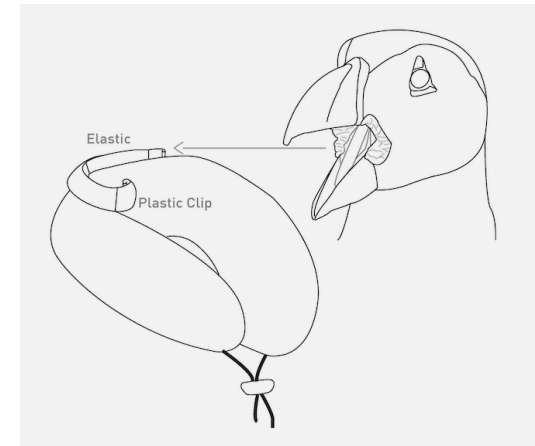


Keeping in mind the users privacy, the emergency plan would be in the form of a tag with a QR code unique to every user.

THE ALLERPACK COMPONENTS



A clip to hold the face mask at the back to reduce **mask fatigue** which can be pulled out when needed. It is inspired by the beak of a puffin who's jaws are joined together with a soft and stretchy piece of flesh known as a "rosette", which allows the puffin to open its mouth even wider than the average bird.

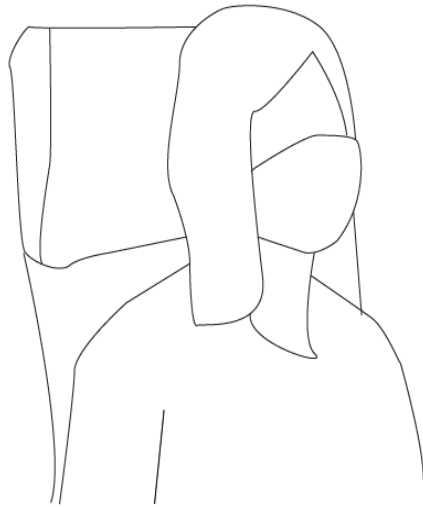


The allergy tag with a QR code that provides the user's emergency information when it is scanned in case of emergencies

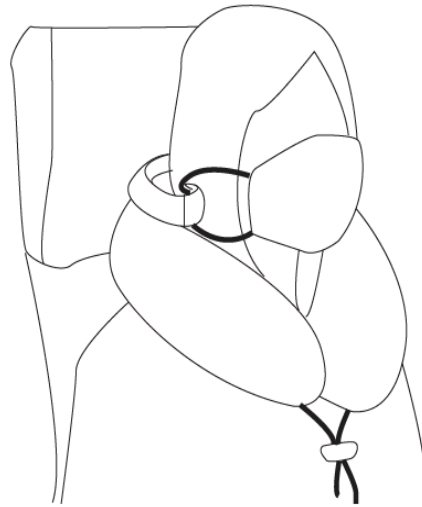
The face mask with a pocket for a replaceable HEPA filter sheet which provides protection against airborne food proteins

The neck pillow which uses the activated charcoal foam for odor repulsion while also providing comfort to the user

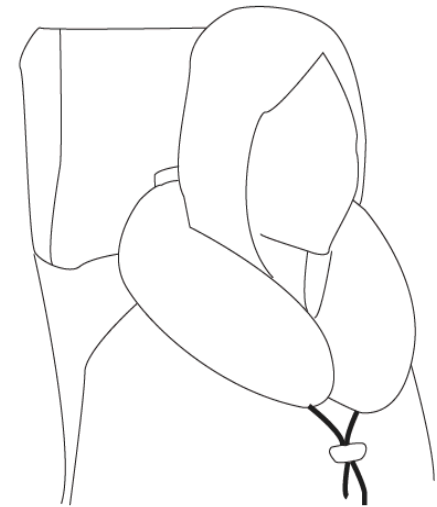
USER JOURNEY



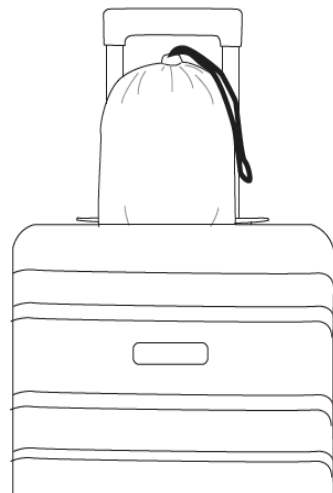
Wearing only mask while moving around for protection



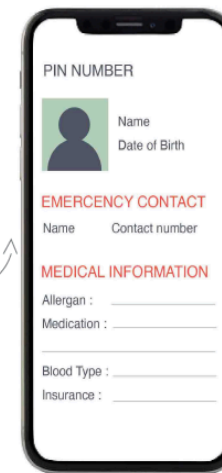
Wearing mask and pillow in enclosed spaces using flexible holder for reduced fatigue



Wearing only pillow during low risk situations for extra comfort



All the components can be stored in a pouch



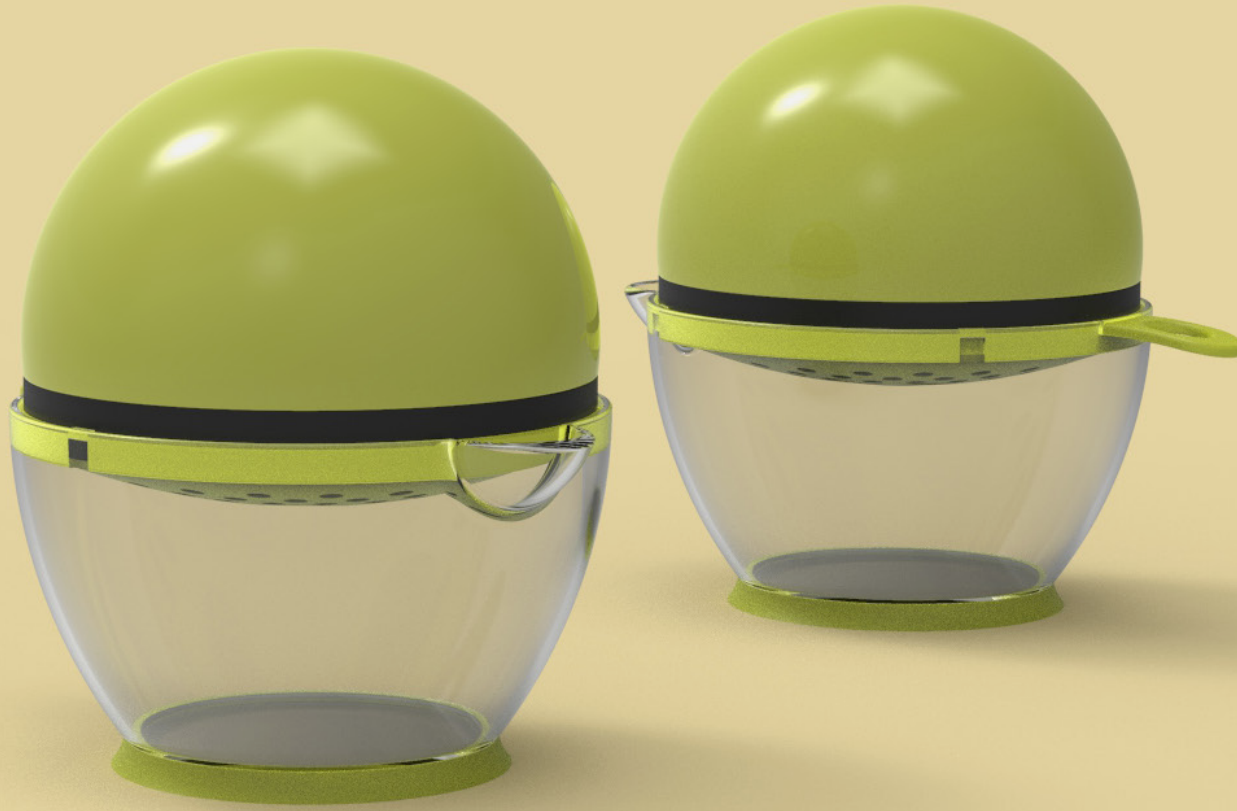
QR code with details in case of emergency

KLO

The goal of this project was to design a product for aspirational brand, BODUM, keeping in mind the brand language, attributes, philosophy, etc.

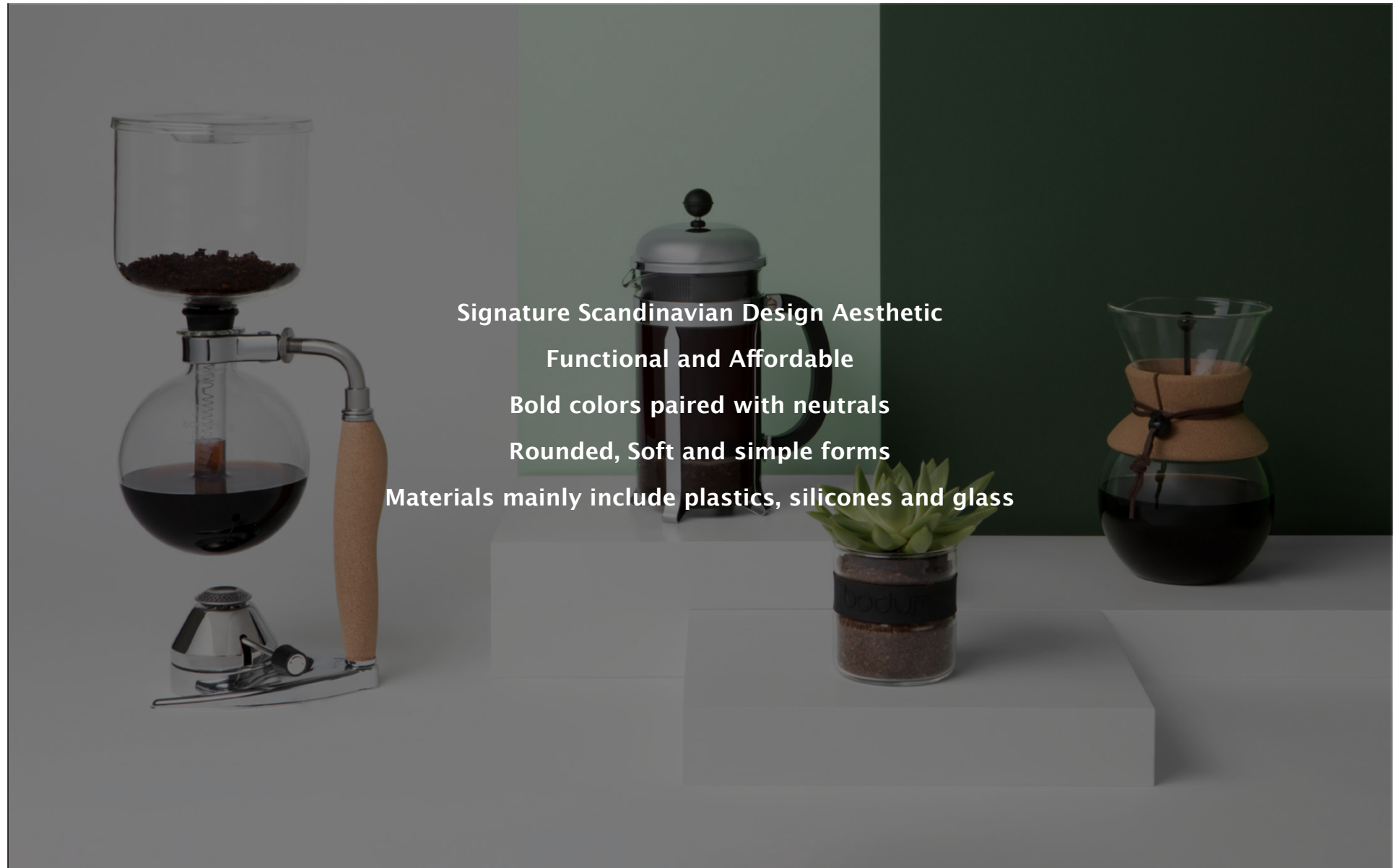
Personal Project

Fall 2020



BRAND RESEARCH

Studying the brand language, attributes, philosophy and catalog –



Signature Scandinavian Design Aesthetic

Functional and Affordable

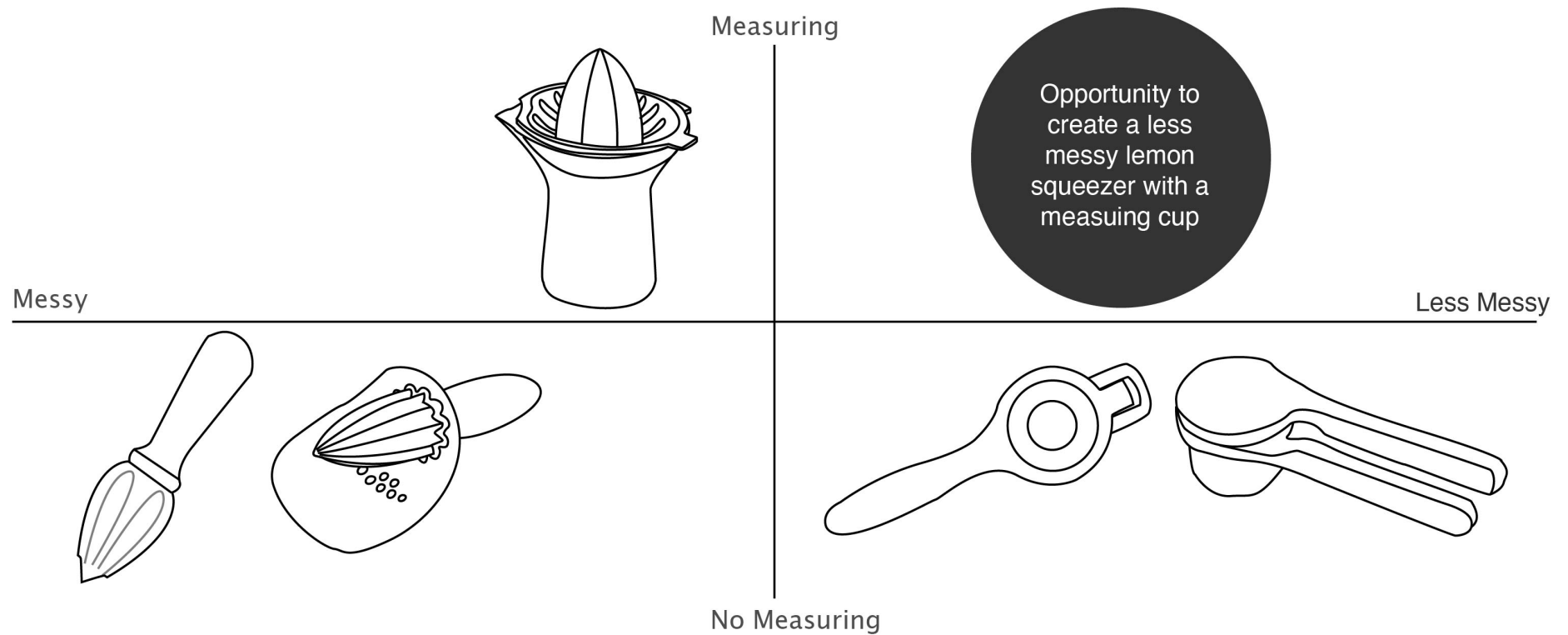
Bold colors paired with neutrals

Rounded, Soft and simple forms

Materials mainly include plastics, silicones and glass

MARKET RESEARCH

Based on the product catalog of BODUM, the product chosen for this project was a lemon squeezer. Below is an analysis of the current lemon squeezers in the market –



USER RESEARCH

Observing several potential users squeezing a lemon to establishing the needs and wants –



NEEDS

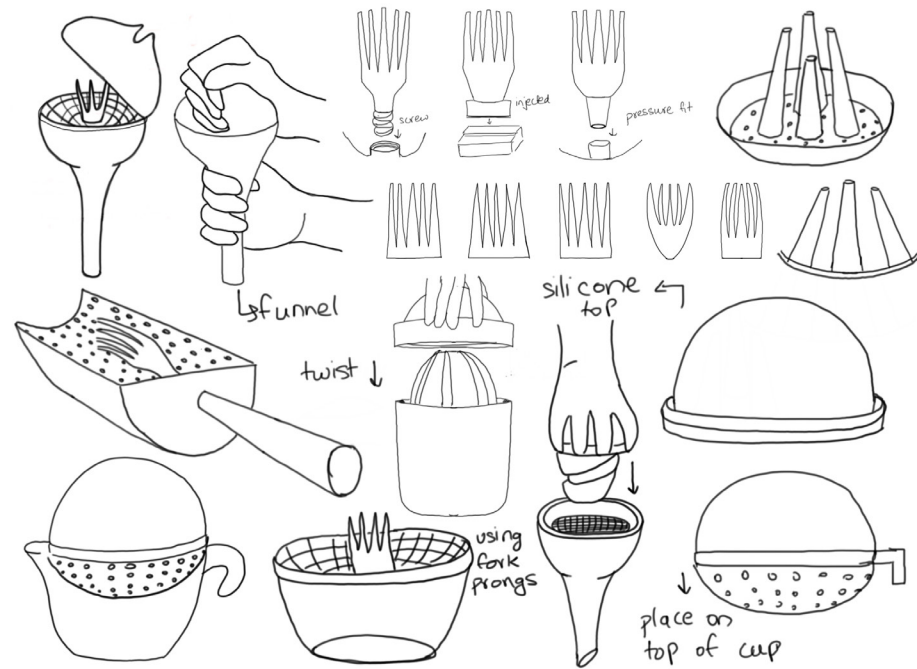
- Lightweight
- Sturdy
- Easy to clean
- Good grip, non-slip
- Safe, non-chipping
- Resists Damage
- Efficient
- Filtering

WANTS

- Modular
- Easy to store
- Spill proof lid
- Clean use
- Effective Twisting Mechanism

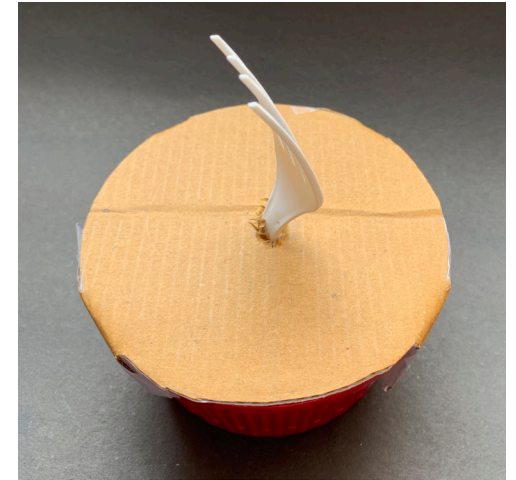
IDEATION

Ideating based on the needs and the wants that had been established –



TESTING

Testing some of the ideas –



EXPLORATION

Based on the user research, the idea of using fork prongs to squeeze a lemon was further explored.



Prongs are too short

Large surface area to cover entire lemon

Prongs are at an angle which makes it difficult to hold the lemon and rotate it

Prongs are not sharp enough at the tip to hold a lemon

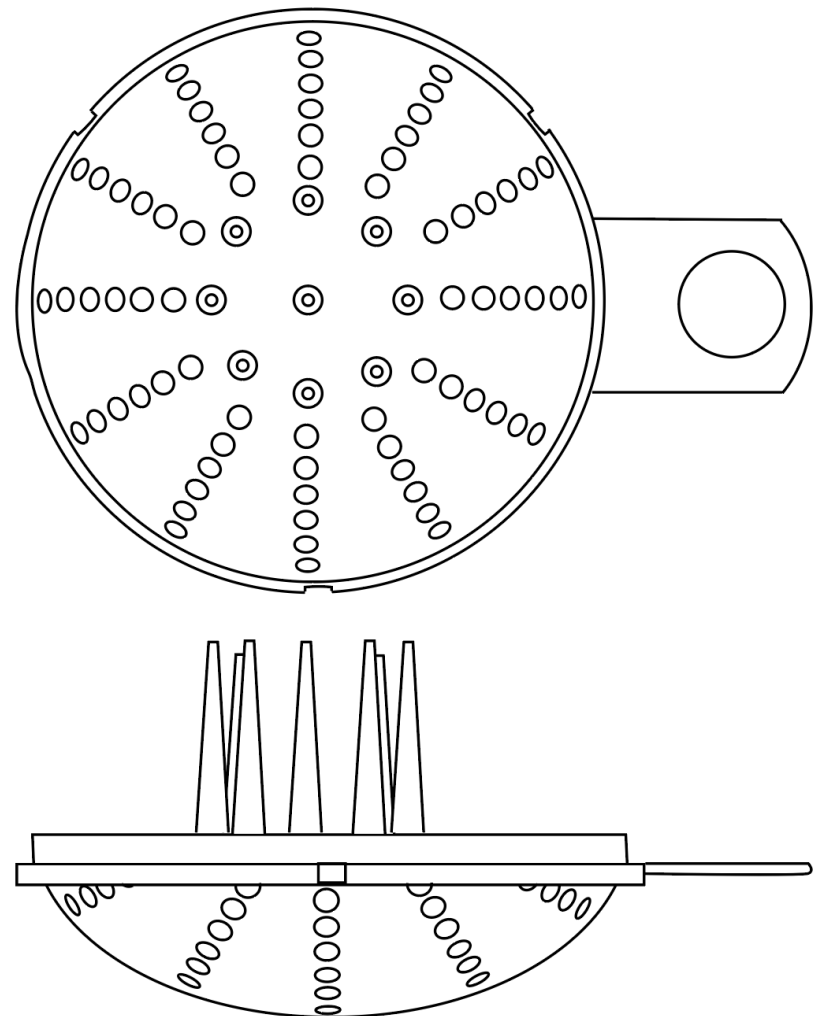
Prongs are flat which make it difficult to rotate the lemon

Prongs are rounded which helps with lemon rotation

Prongs are too short

Prongs are too flat to allow for rotation

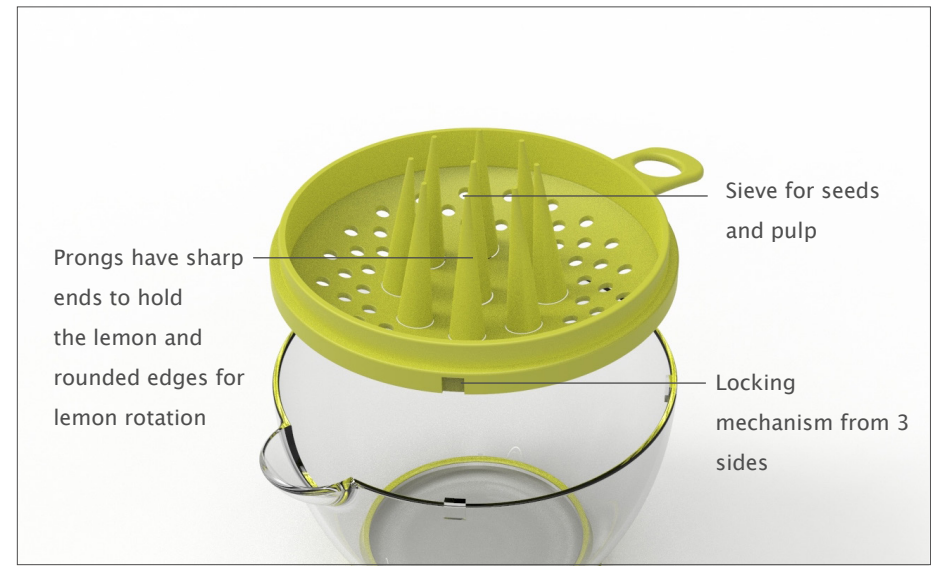
From the testing, it was observed that the fork prongs were only able to squeeze the lemon in one direction. Therefore, for the final form, the prongs were arranged in a circular orientation.



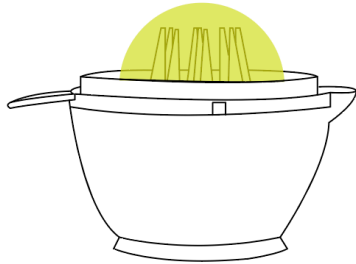
EXPLODED VIEW



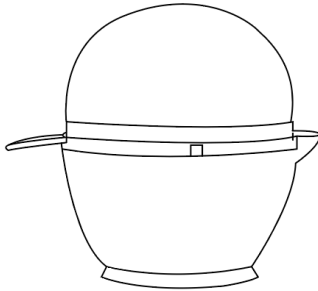
DETAILED VIEWS



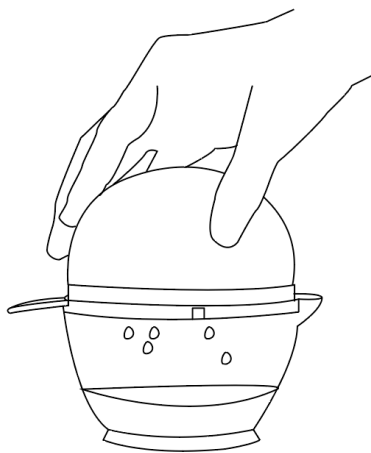
PRODUCT USE



1 – Pierce the lemon through the prongs



2 – Place the silicone top over



3 – Rotate and squeeze the lemon



THANK YOU

