

IND361 Studio Project

Pod Coffee Machine

Design Process Booklet

Spring 2020

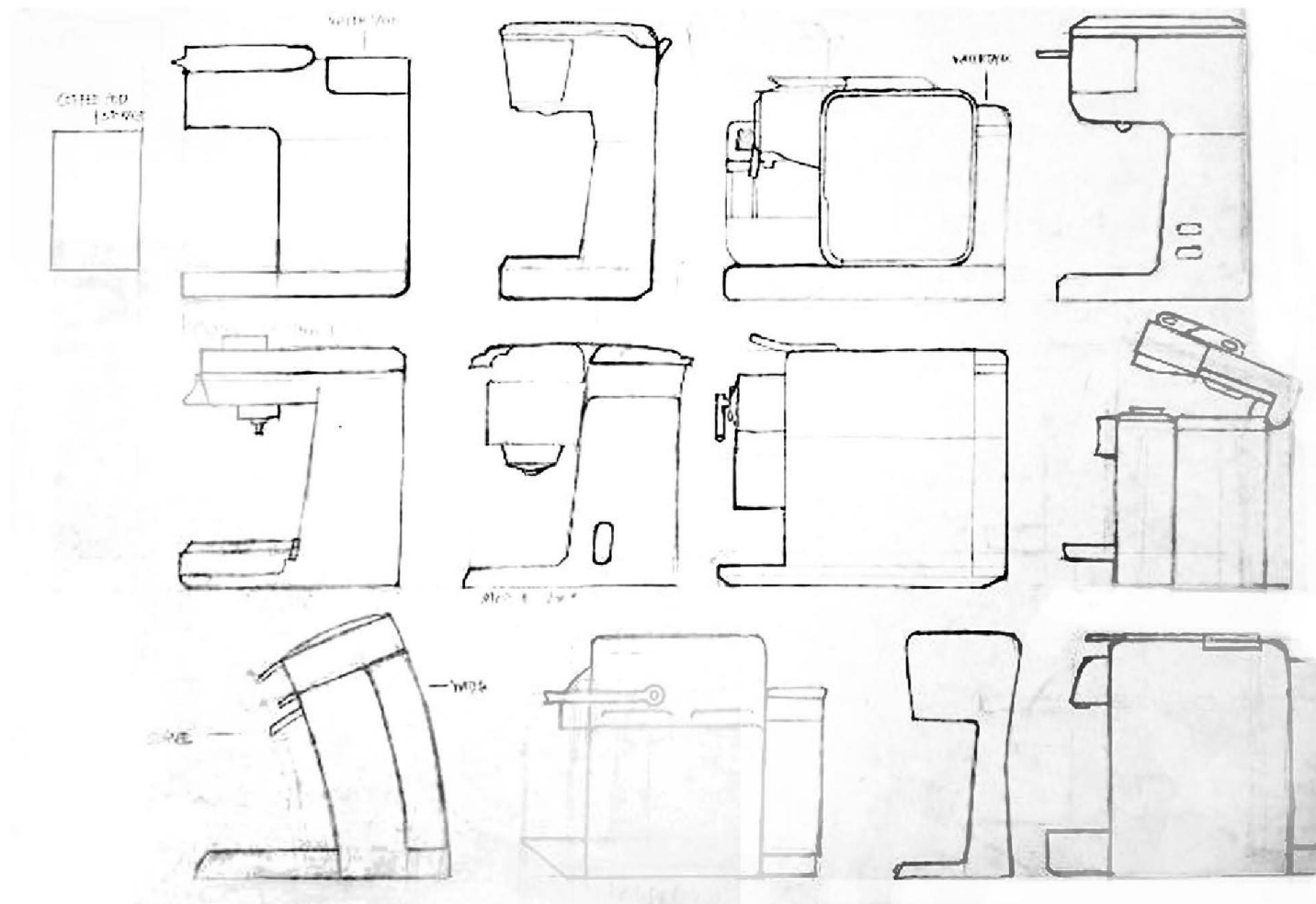
Jeongtae Lee

Instructors : Donald Herring, Craig Hedges, James Reeves

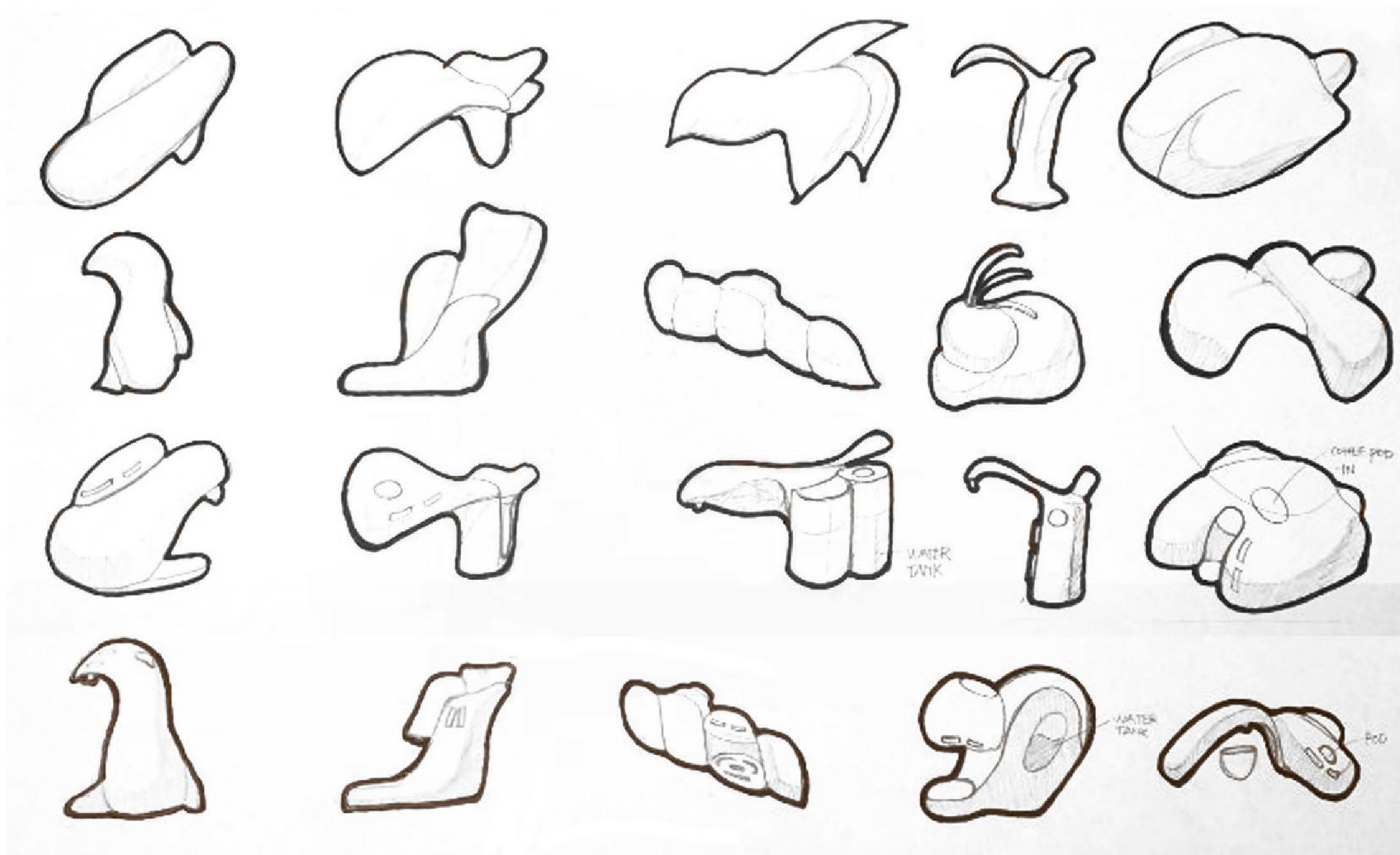
MODULE 1

Form studying

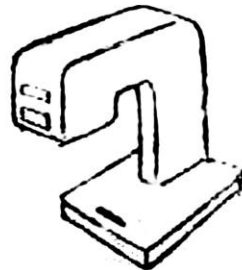
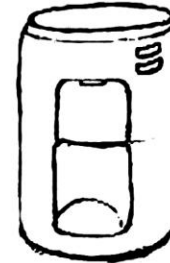
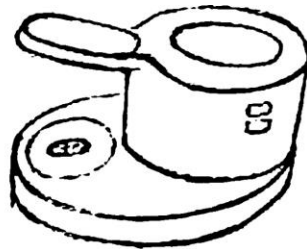
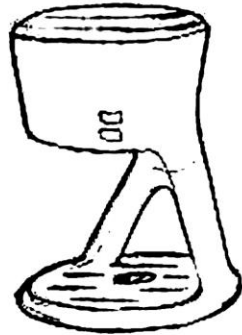
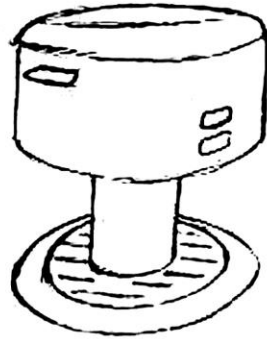
EXISTING PRODUCTS



ABSTRACT FORMS



PRODUCT VARIATIONS



MODULE 2

Idea sketch & Images



Caution: SHARP NEEDLE
Alert users to be careful about sharp needle inside



Small edge to grip and open the water tank



Small edges to grip and empty the residue place



Small edge to open the pod place.
Written letters: Press to open



Two button to select Capsule / Ground

Key Human Interface and User Contact Points



-Make protected water tank or make the plug longer.

-Add process to connect with electronic (on/off button on plug)

Water tank and electronic plug are too being closed. It could be get electronic shocked or spark.



-extend hand part

-cover with the rubber on handle

It could be burned by heated water when cleaning the residue.



-Cover the needle outside.

It might hurt hands when we place the coffee pod inside.

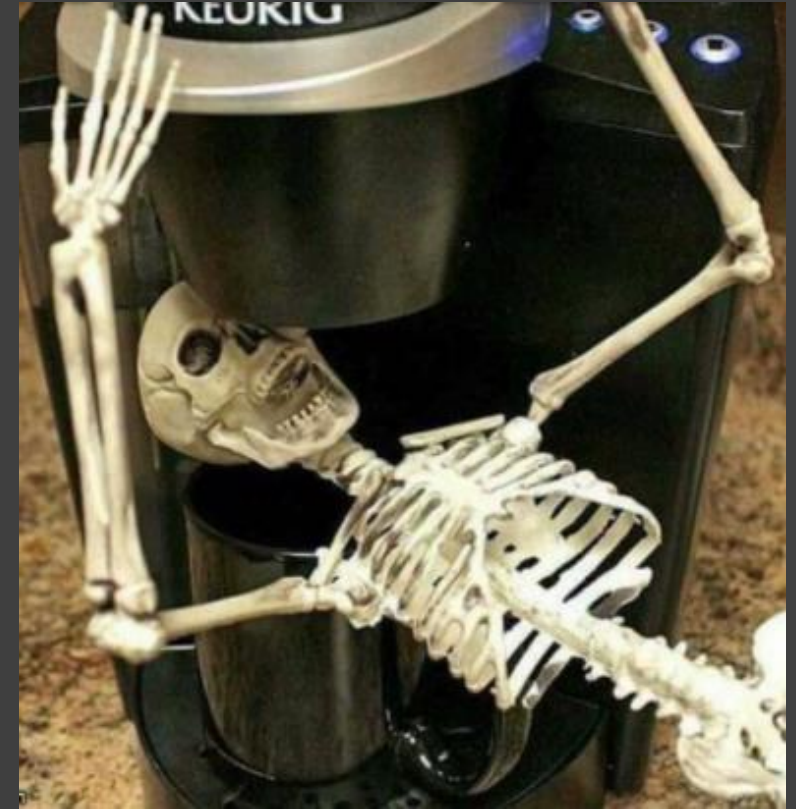
3 actionable insights



Make on/off button to show Machine's status



Use heat resistance material in the filters and pod holder



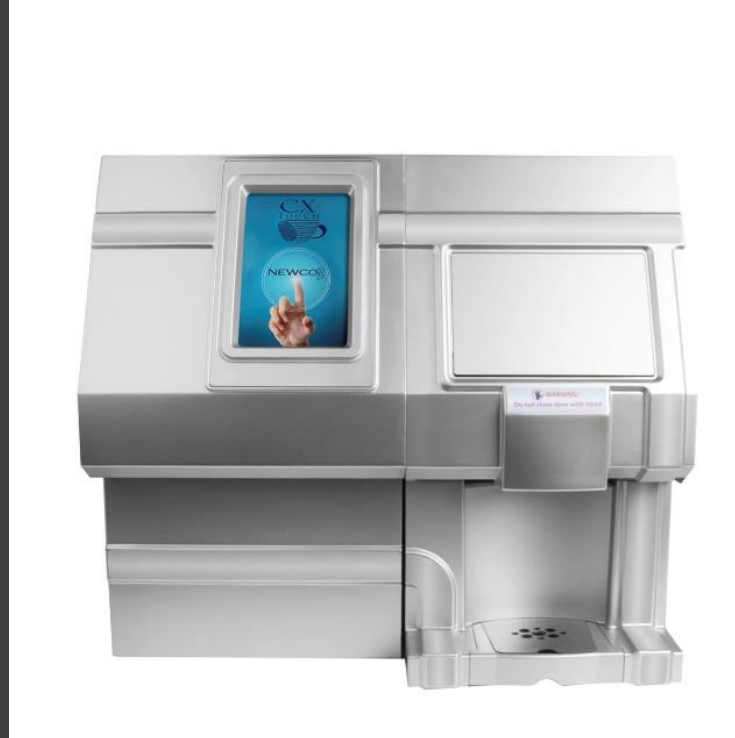
Make the screen to show its process and show time until it will be done.

3 actionable insights

3 actionable insights



- Make on/off button to show product status
- Prevent waste of electricity.
- Minimize the process of plug in and out.



- Make vending machine systems on coffee pod machine
- Prevent stealing the coffee pods from public use
- Easy to store, inventory check amount



- Make the screen or touch screen
- Alert if there is coffee pod machine inside
- Prevent people do not remove their used pod
- Show temperature to prevent burn
- Show how many times it will take to make coffee
- *Show process

Actionable Insights



The cup size is limited
 -> Make adjustable heights of machine or no bottom parts of machine.



Water tank is too small and hard to pick it up
 -> Make handle or make bigger water tank



Water tank entrance are blocked by lids of pod holder
 -> Limit the movement that lids of pod holder can block it
 -> Change the direction of watertank lids.



Bottom of filter is too small, it often needs to empty
 -> Prevent spilling coffee from machine
 = serving coffee in the cup exactly

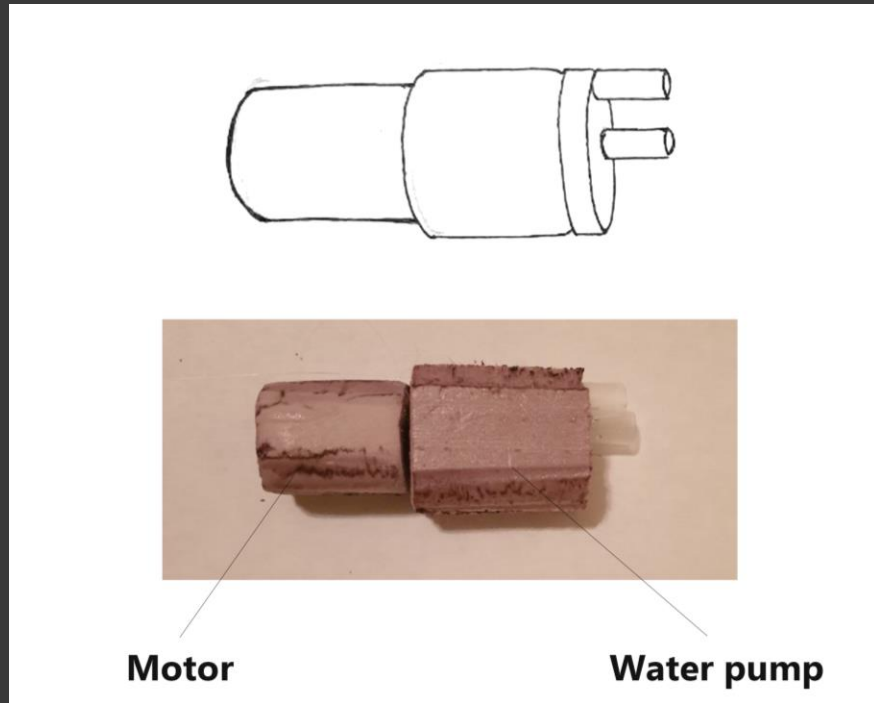


Water pipe is made of soft plastic, it could be torn
 -> Using hard plastic and no curved.

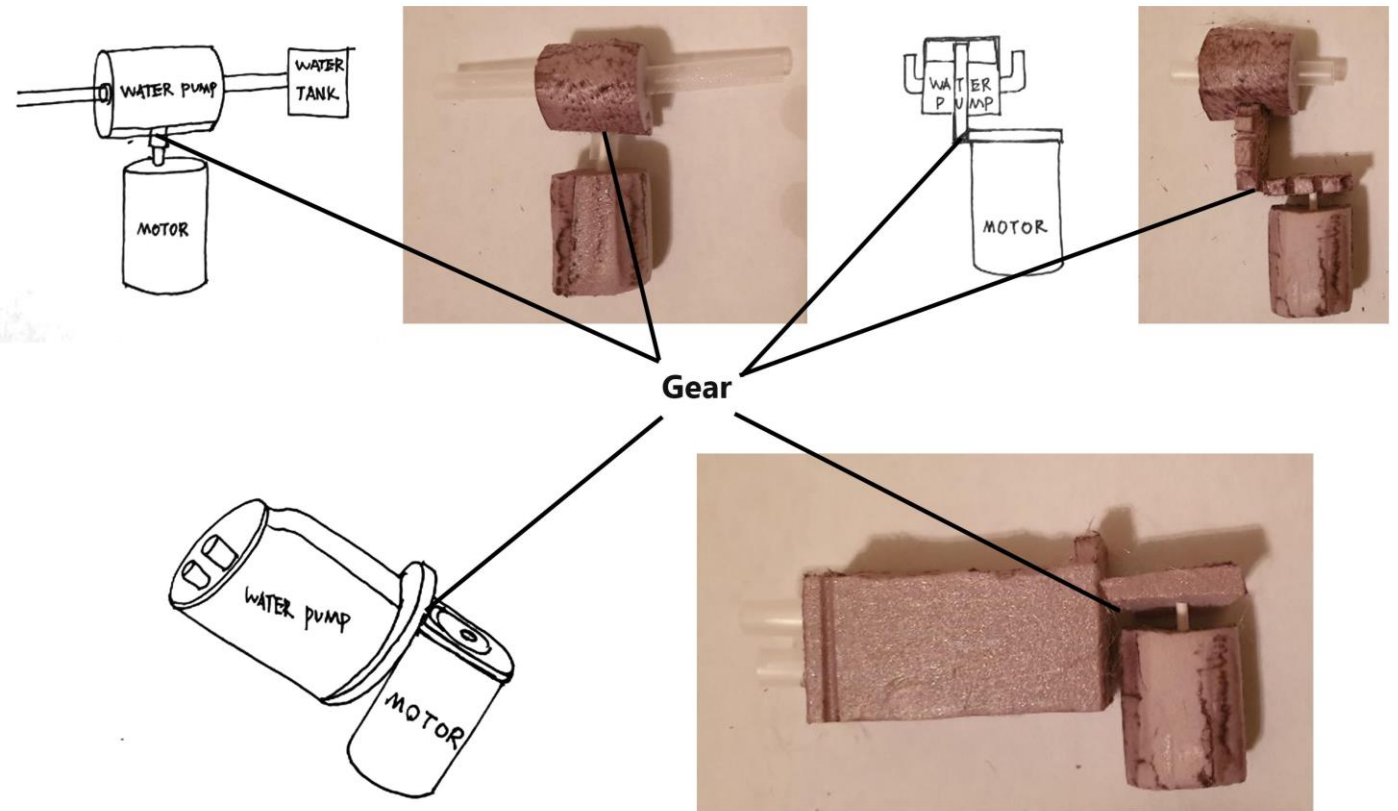


Power cord is long and there is no place to put it.
 -> Make place to arrange it
 -> pullable power cord line

Existing Motor and drive train (gears) systems



New motor/drive train configurations



Restful and active configuration

Restful



Active 1

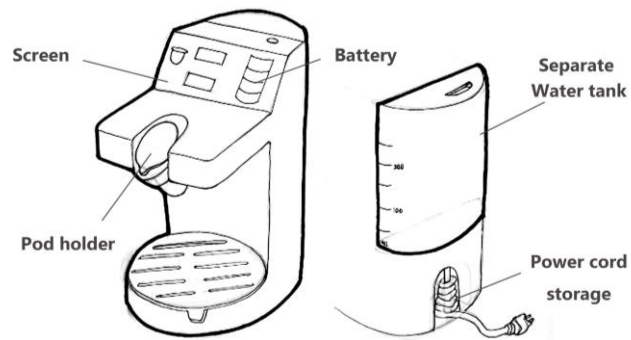


Active 2



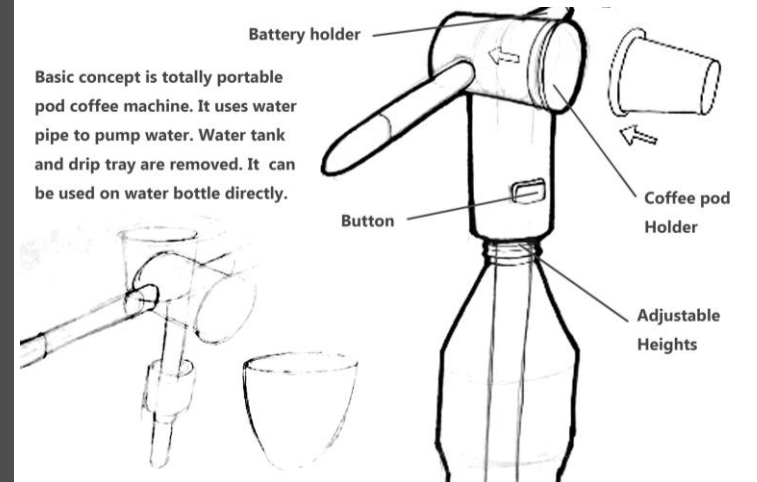
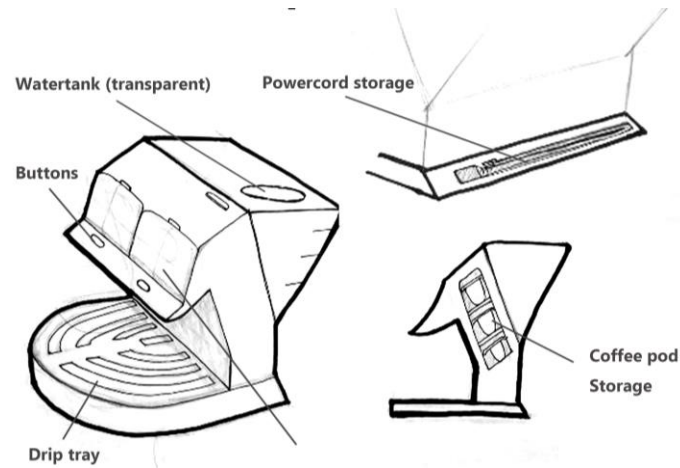
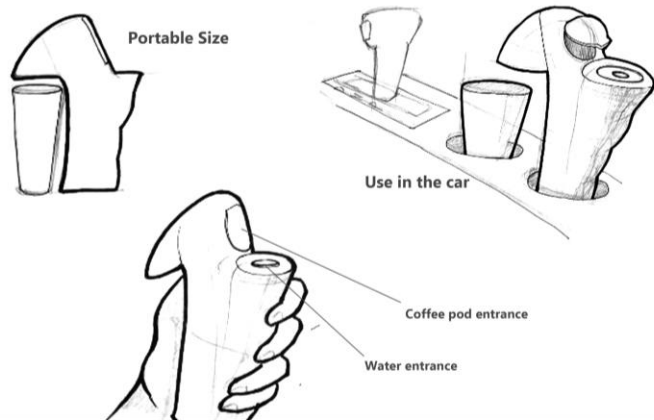
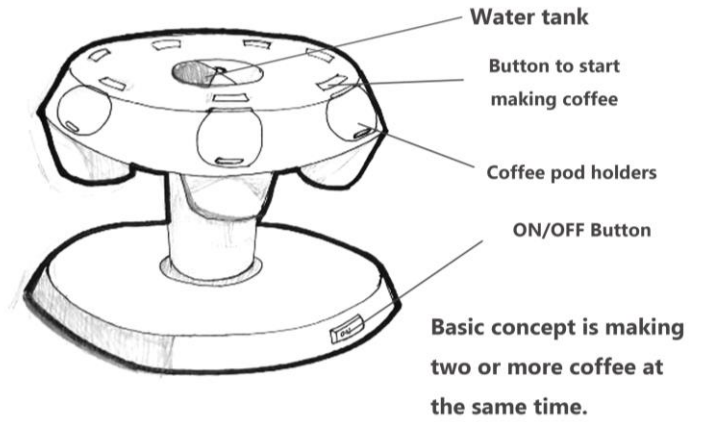
Active 3





Final concept sketch

Basic concept is portable pod coffee machine, it is made easy to grab by hands. I did not limit the use of pod coffee machine in home or indoor



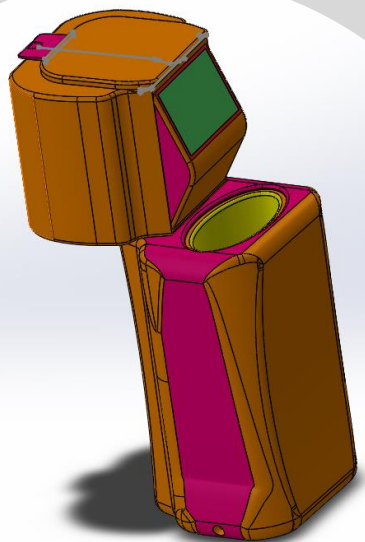
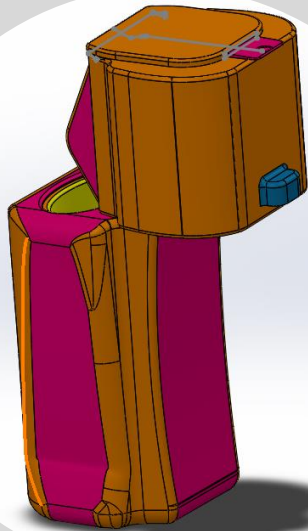
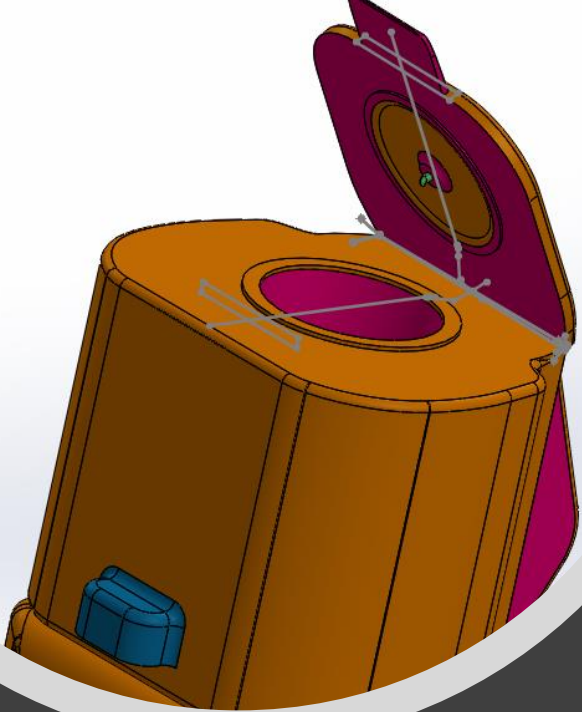
Study model of proposed direction



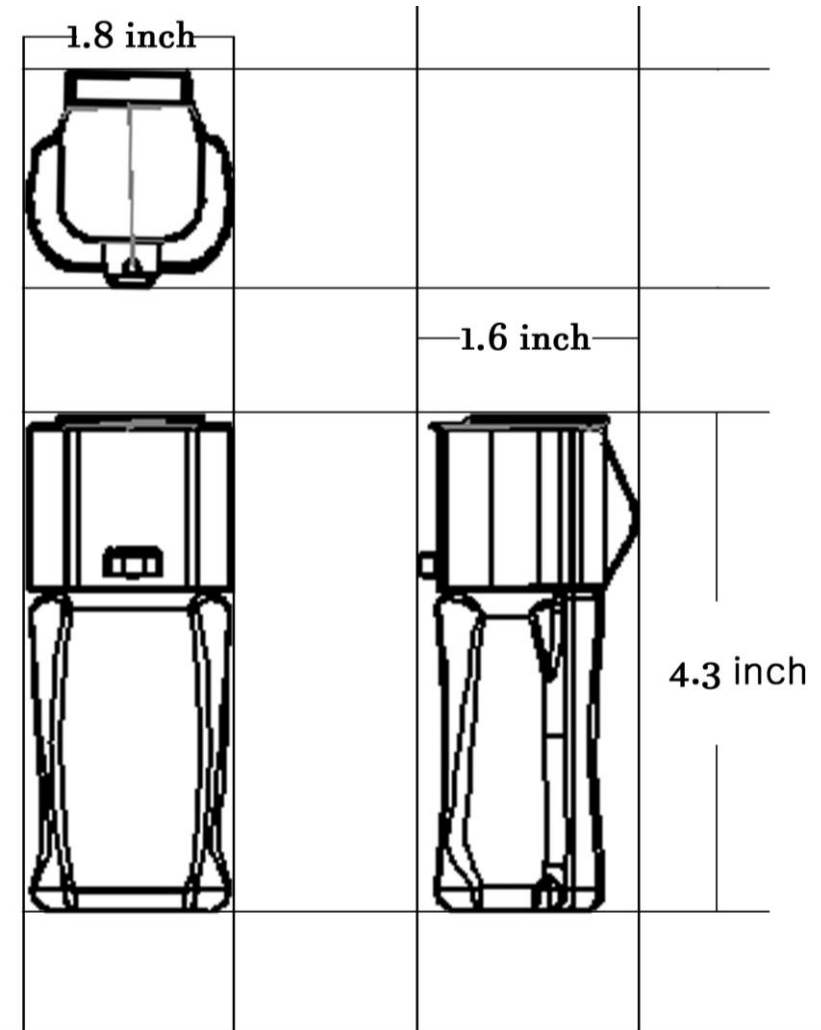
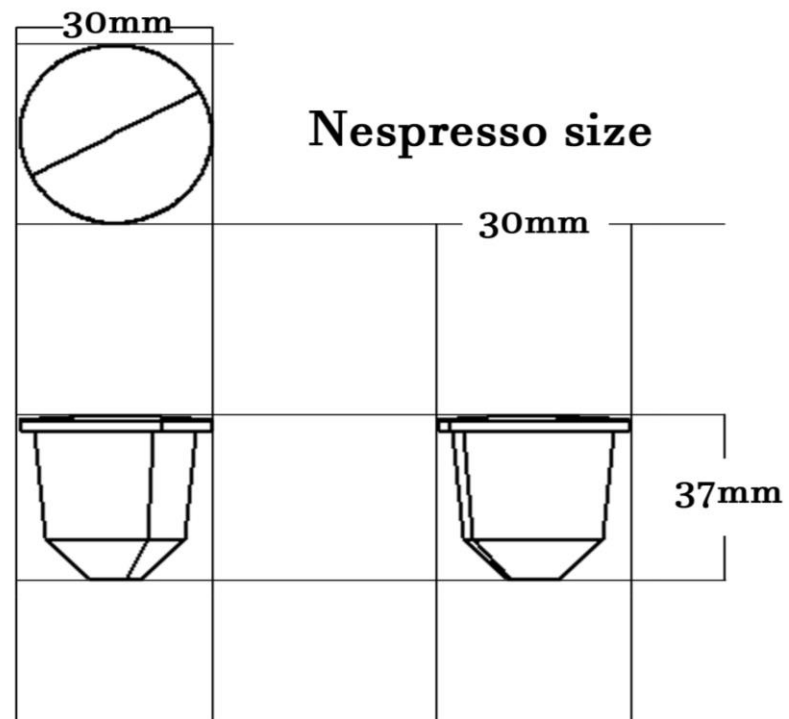
MODULE 3

3-D rendering

Solid works modeling



Orthographic view

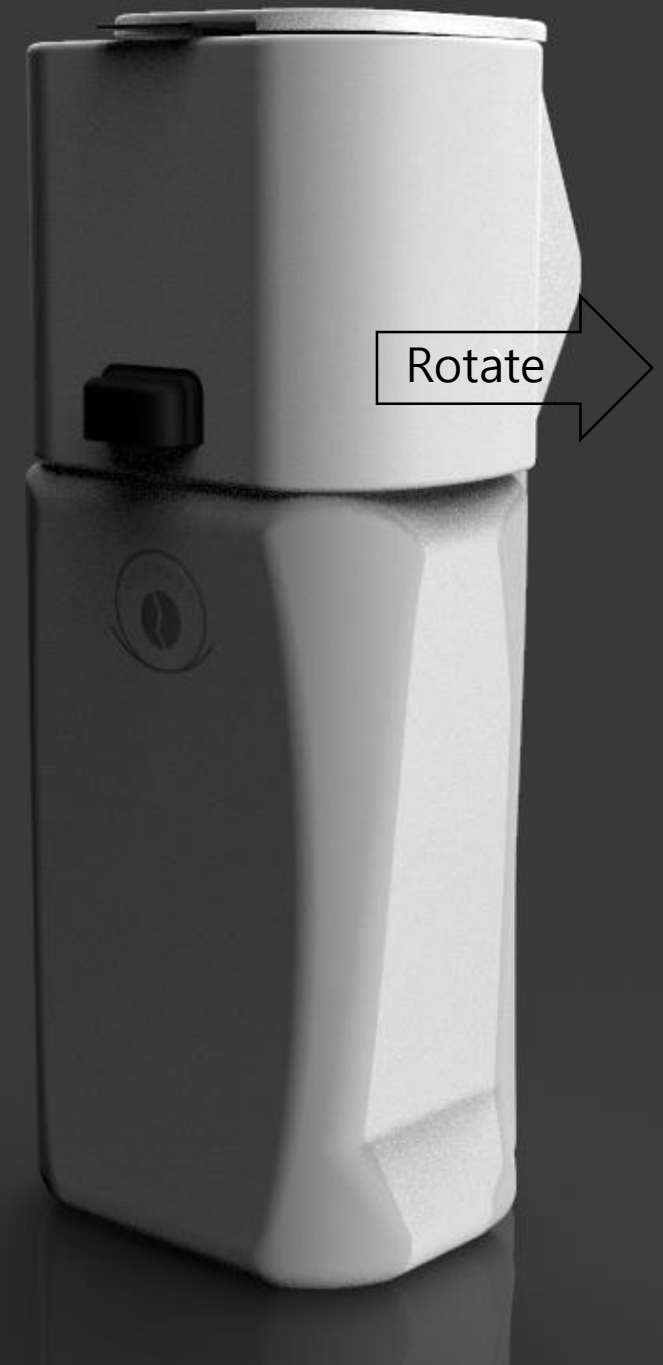


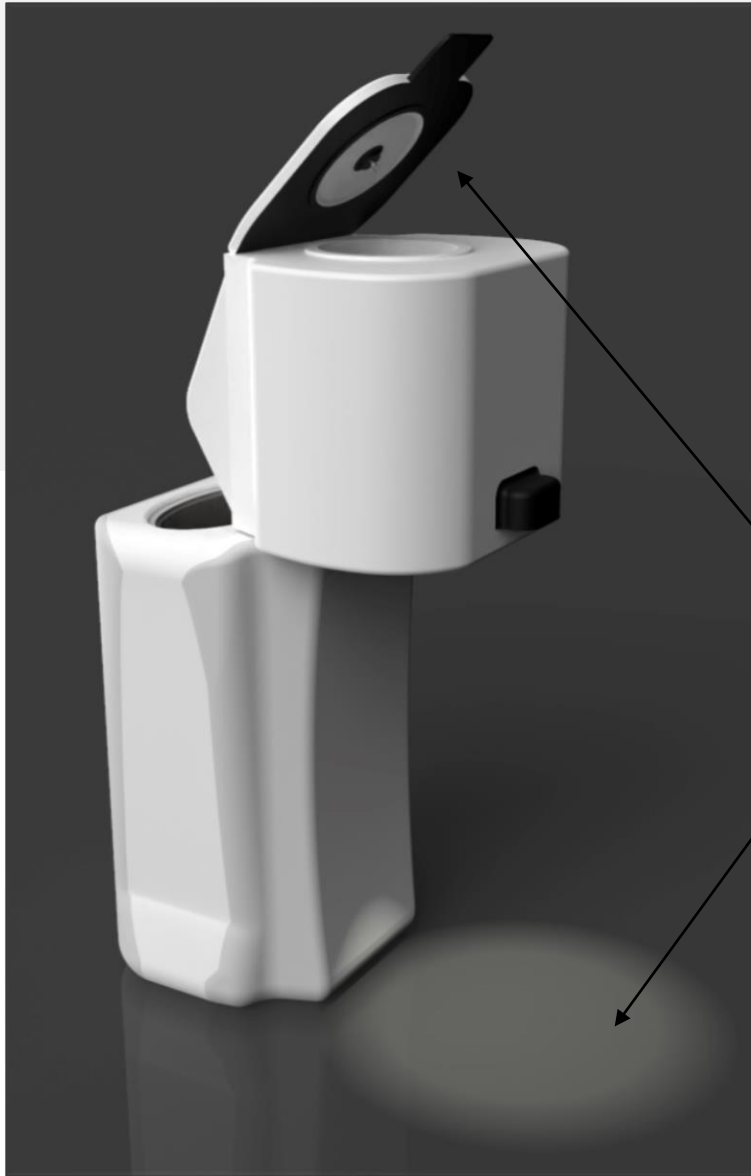


COFFANY



- Rotate top side right side to turn on the device
- Screen will be turned on
- Available to check the amount of water and battery
- Refill the water to water tank

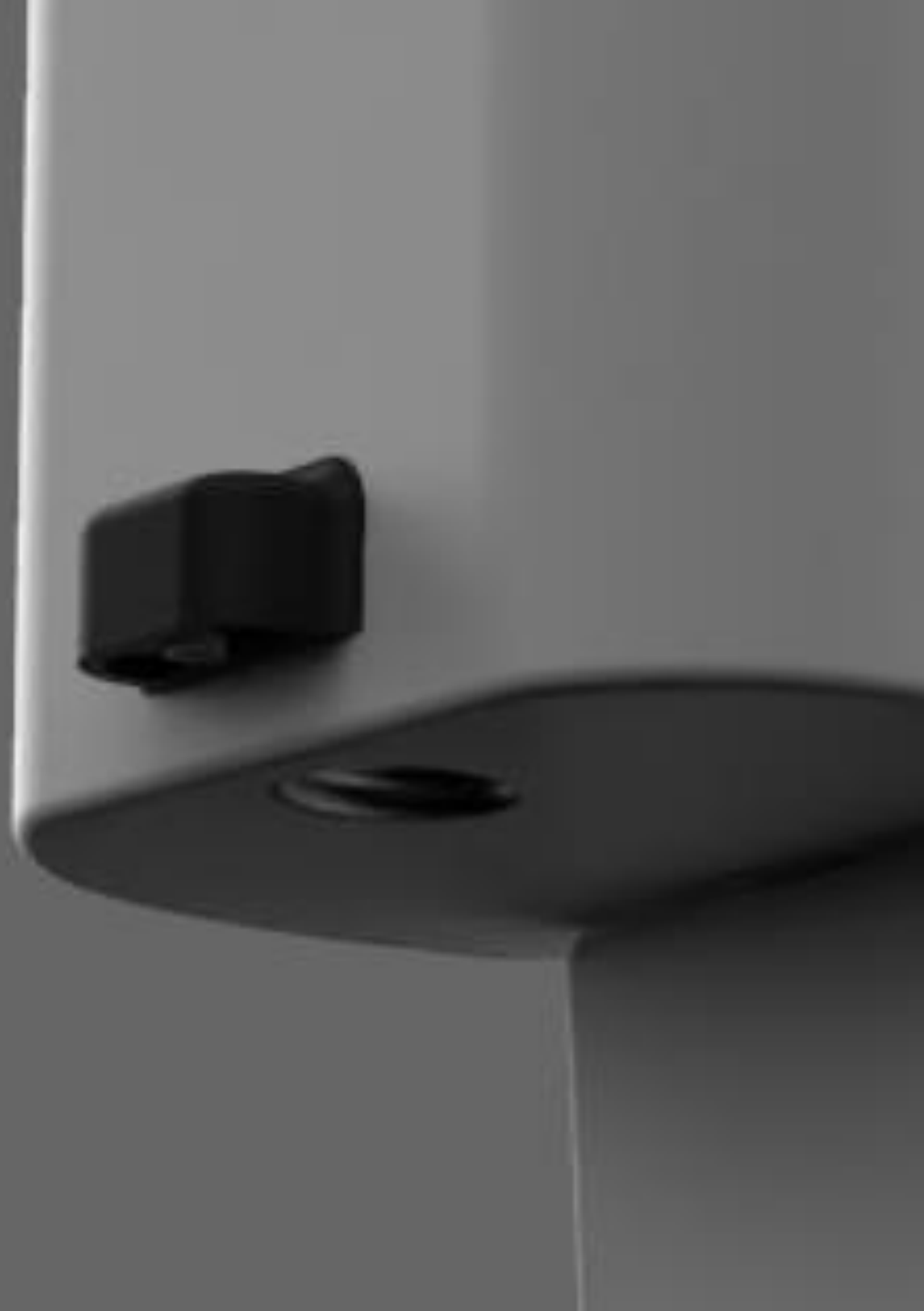
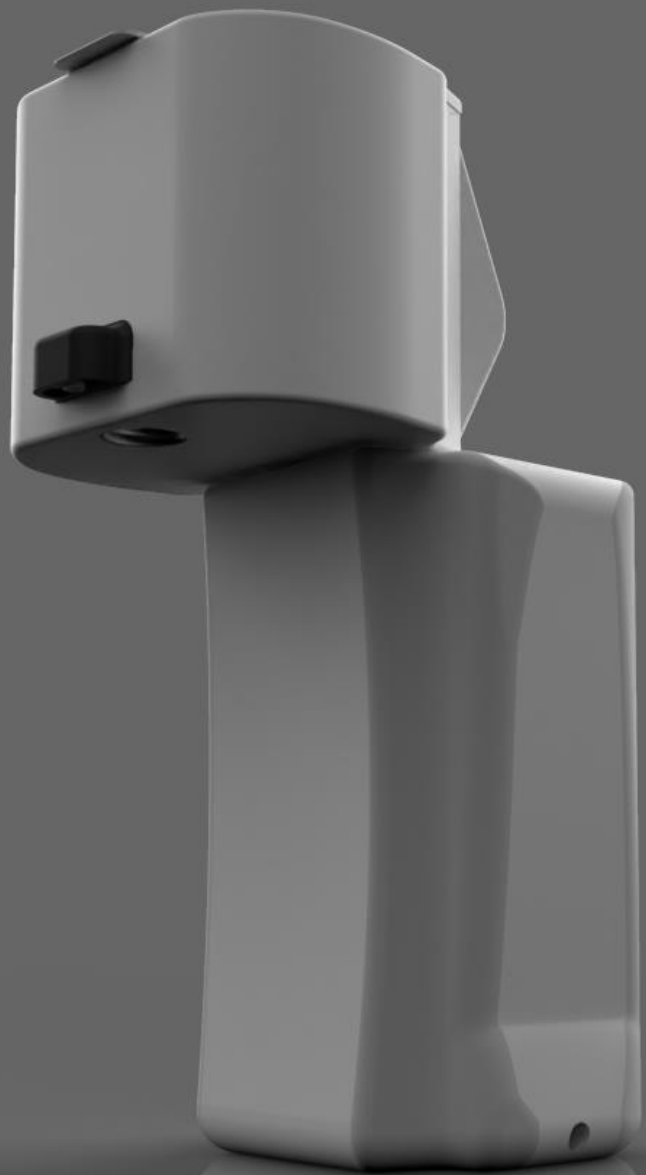


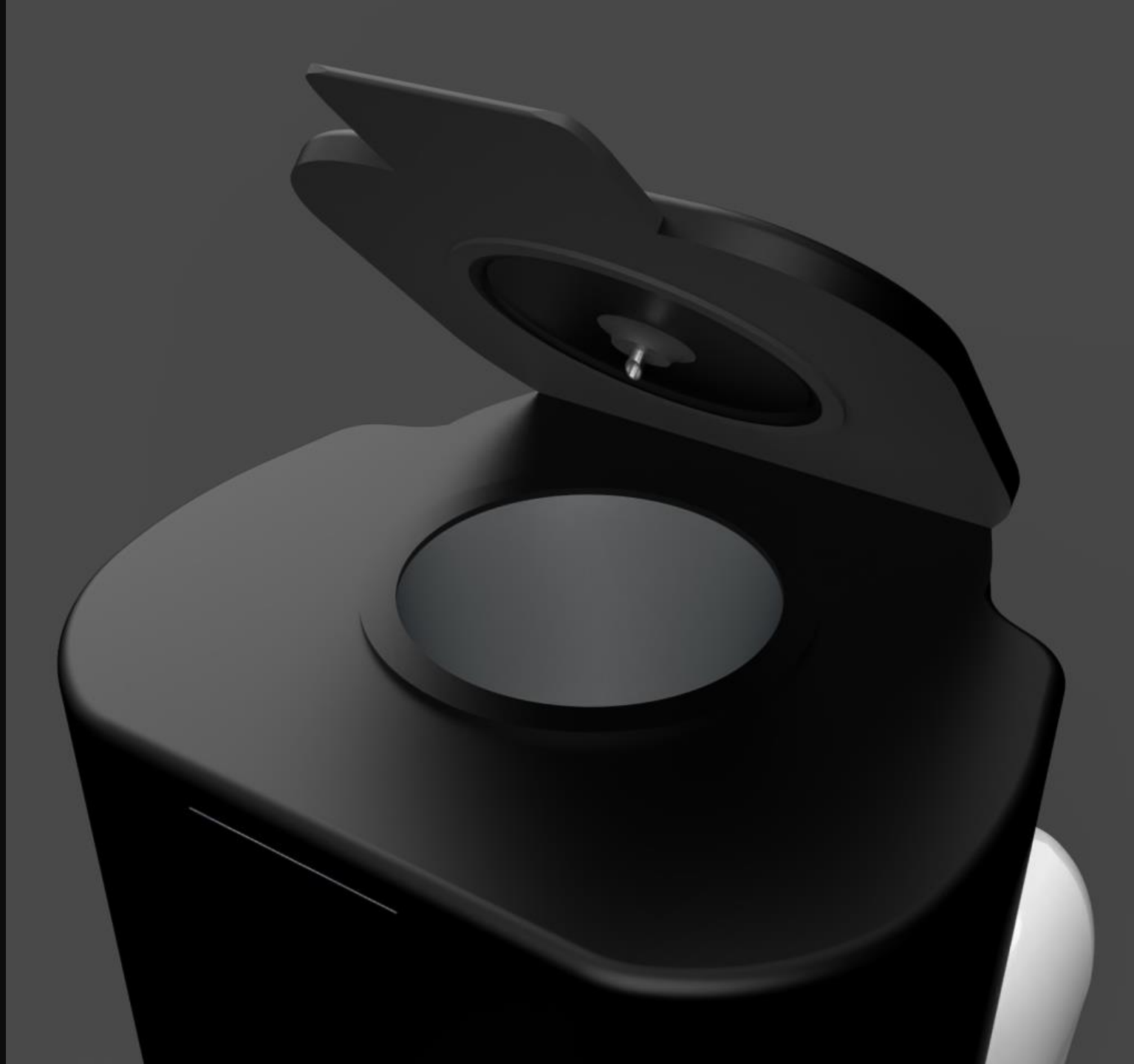


- Prevent leaking and splashing
- When the device is turned on, top part emits lights.
- Heat resistance materials (rubber)
- It indicates the space to place cup



Features





Place of coffee pod

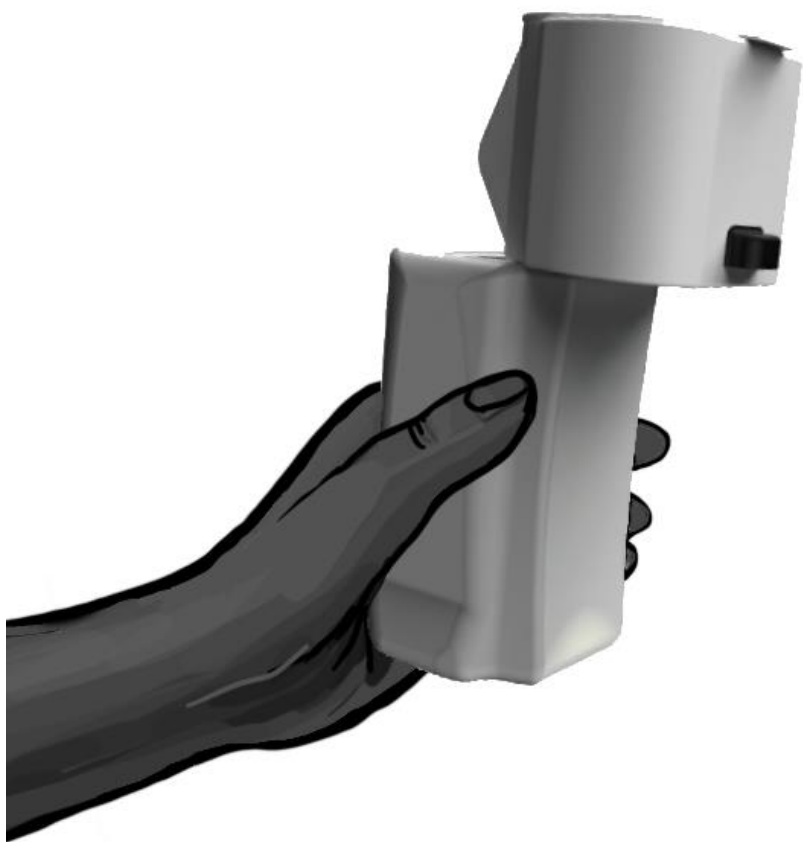
Short needle

Heat resistance material



Designed by Jeongtae Lee

CE





UI/UX design

Brand & Logo Identity



The brand and product name is the COFFANY. It made of words 'Coffee' + 'Anywhere'/'Anytime'. I would like to emphasize the 'portable'. I have realized that there is too many cheap price pod coffee machine, but most of the products have no brand and identity. I would like to make minimalized cheap price product with luxury brand identity. For the logo, overall shapes are based on pod(coffee capsule) shapes.



Logo on the product

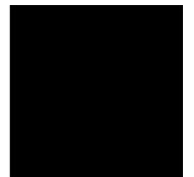
Logo of lined shape without colors are appeared on product.(white, black model)



C : 88
M : 56
Y : 18
K : 46



C : 38
M : 11
Y : 44
K : 4



C : 63
M : 52
Y : 51
K : 100

Packaging design concept: multi-use packaging

- Packaging can be used as a cup holder



