

A photograph showing two people sitting on the floor, interacting with a glowing yellow device. The device has a base and three vertical, wavy, glowing tubes. The person on the left is wearing an orange jacket and glasses, and the person on the right is wearing an orange cap and glasses. The scene is dimly lit, with the glow from the device illuminating the surroundings.

# GLOWARO

*RECHARGABLE GLOWSTICK SYSTEM*

# PROBLEM

Campers want **LIGHT** where they need it,  
when they want it. Not being able to see  
makes **ENJOYING** yourself in the  
**OUTDOORS** much more **DIFFICULT**.  
How does a **LIGHT SOURCE** go where  
the user needs it when the user needs it.

# USER INTERVIEWS

## BRAD BLONIGEN

Camper, Outdoors Enjoyer



-“A lot of Lanterns are not designed with how much space they take up in mind”

-“A lot of times the lantern sits in the middle of a group like a centerpiece”

-“We always end up with fewer flashlights and lanterns than we actually end up needing at some point. Worse is storing all of them when we are done”

-Preferrably would like something that can be used just as much in the backyard as on the campgrounds

## SARAH HILAND

Camper, College Student



-“When I camp, it’s with friends and family, always with a decent sized group”

-“Flashlights only give a solid beam of light. I prefer the more ambient light that lanterns give”

-“Me and my friends are usually only free after dark, but we still like to hang outside, such as in parks or at beaches”

-When in a group almost always has music playing, either in the background or more as a focal point

## JARRETT GREEN

Camper, DIYer



-“the ratio of battery life to amount and intensity of light is a balancing act”

-“I would love to see a lantern that acted like a multitool but for power and light”

-“I am almost camping with all of my boys. The oldest is about to leave for college and the youngest is about to start middle school”

- Frequently has music playing with a speaker when working outdoors

# OBJECTIVE

Creating a Hub for **ILLUMINATION** and **MUSIC** with a way to **SPREAD** that **OUT** across multiple users is the goal.

Making the sources of light into **MANIPULATABLE**, posable objects will help achieve that

# EXISTING SOLUTIONS



Quad Pro 800L LED Lantern

Coleman

\$94.49

- 4 take-along light panels re-charge on base
- Built-in flashlight on each panel provides directional light
- Fold-down panel handles double



MINERS LANTERN style light source

barebonesliving

\$74.99

- Directional Light
- Emulates form and style of acetylene lantern but uses LED lights and Battery
- Rechargeable Replacable battery



Emergency Camping Lantern

Thorfire

\$17.99

- Handcrank and USB Rechargeable
- Collapsible construction
- Acts as portable battery bank



LED Flexible Work Light

Astyer-X

\$15.37

- Posable Light
- Clamp Base
- Single Directional Light

# PAIN POINTS INTO INSIGHTS

1. Multiple devices to pack

2. Sharing a flashlight

3. Charging multiple lights

4. Only one brightness level

5. Multiple devices need power unevenly

1. Multiple functions in one product

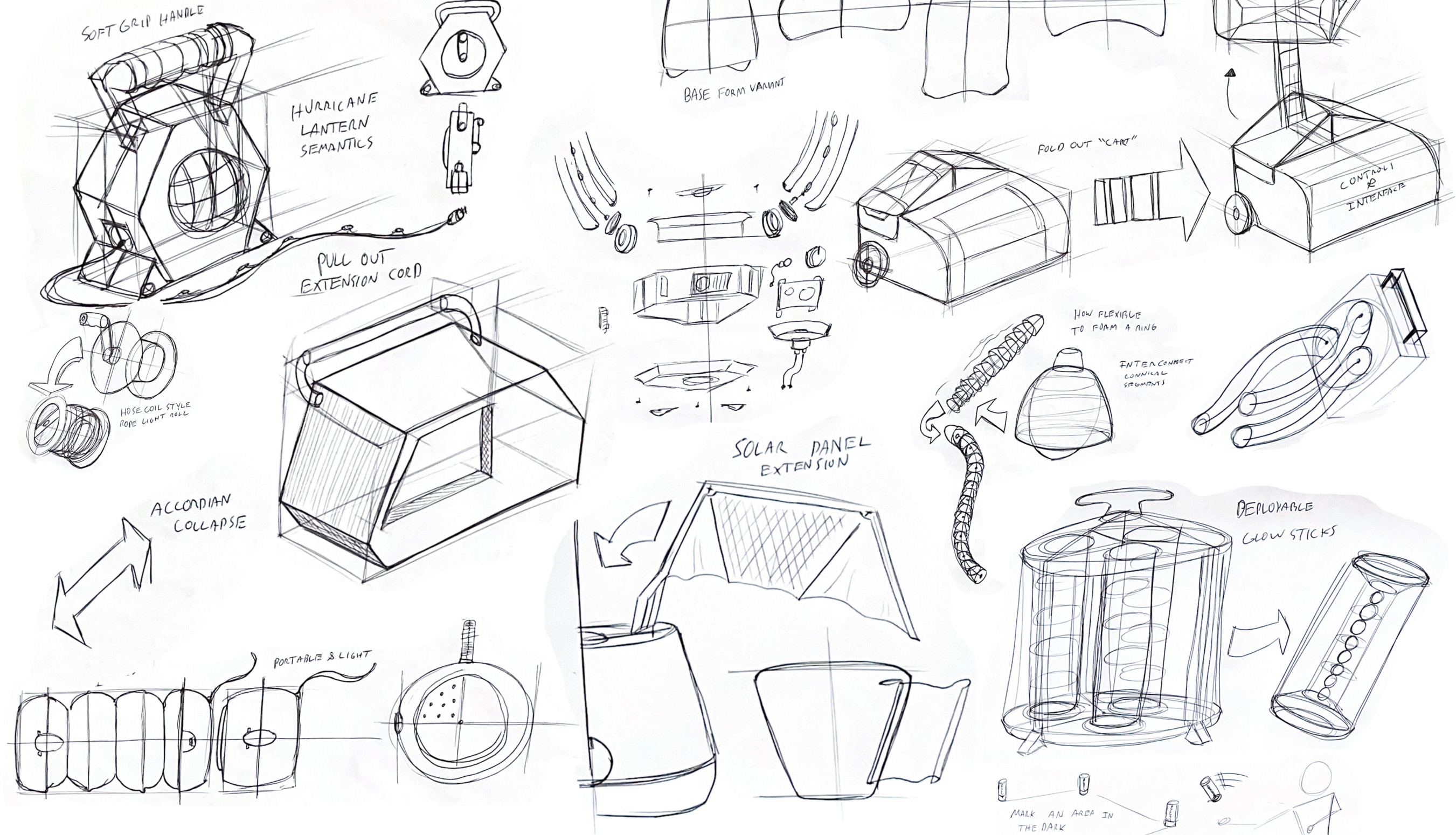
2. "Pull-a-part" system for splitting up

3. Core part acts as base for whole system

4. Multiple Brightnesses and Colors for Light

5. One main battery powers entire system

# EXPLORATION OF FUNCTION



# LOW FIDELITY MODELS

Testing the possible uses and issues with individual parts within product system



**PROS:**

**TRI DESIGN**

**SPEAKER ON TOP**

**DETACHING PORTS**

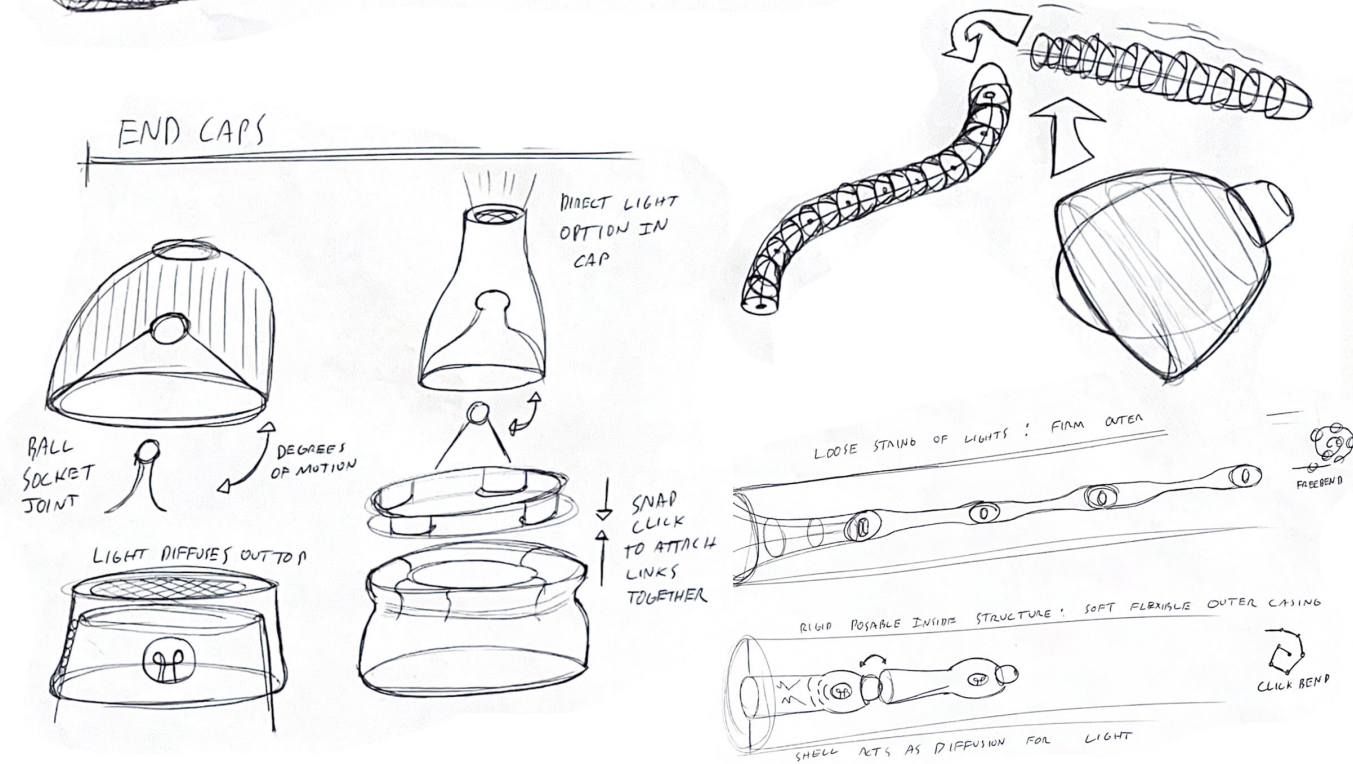
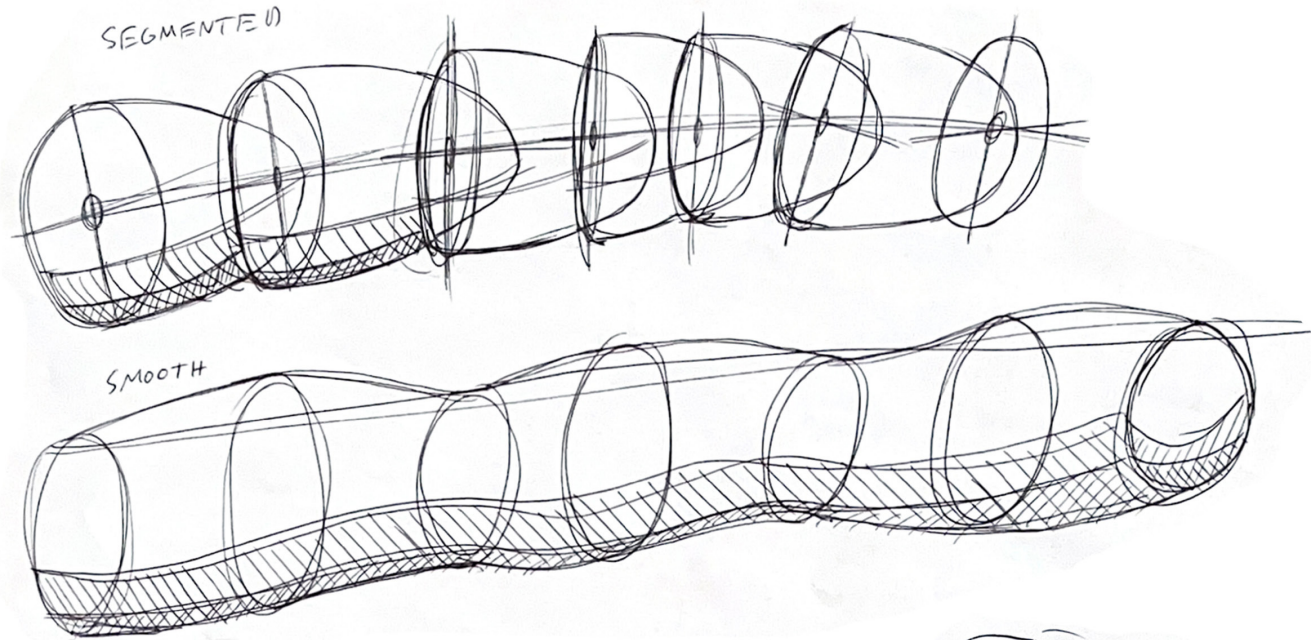
**CONS:**

**TOO ANGULAR**

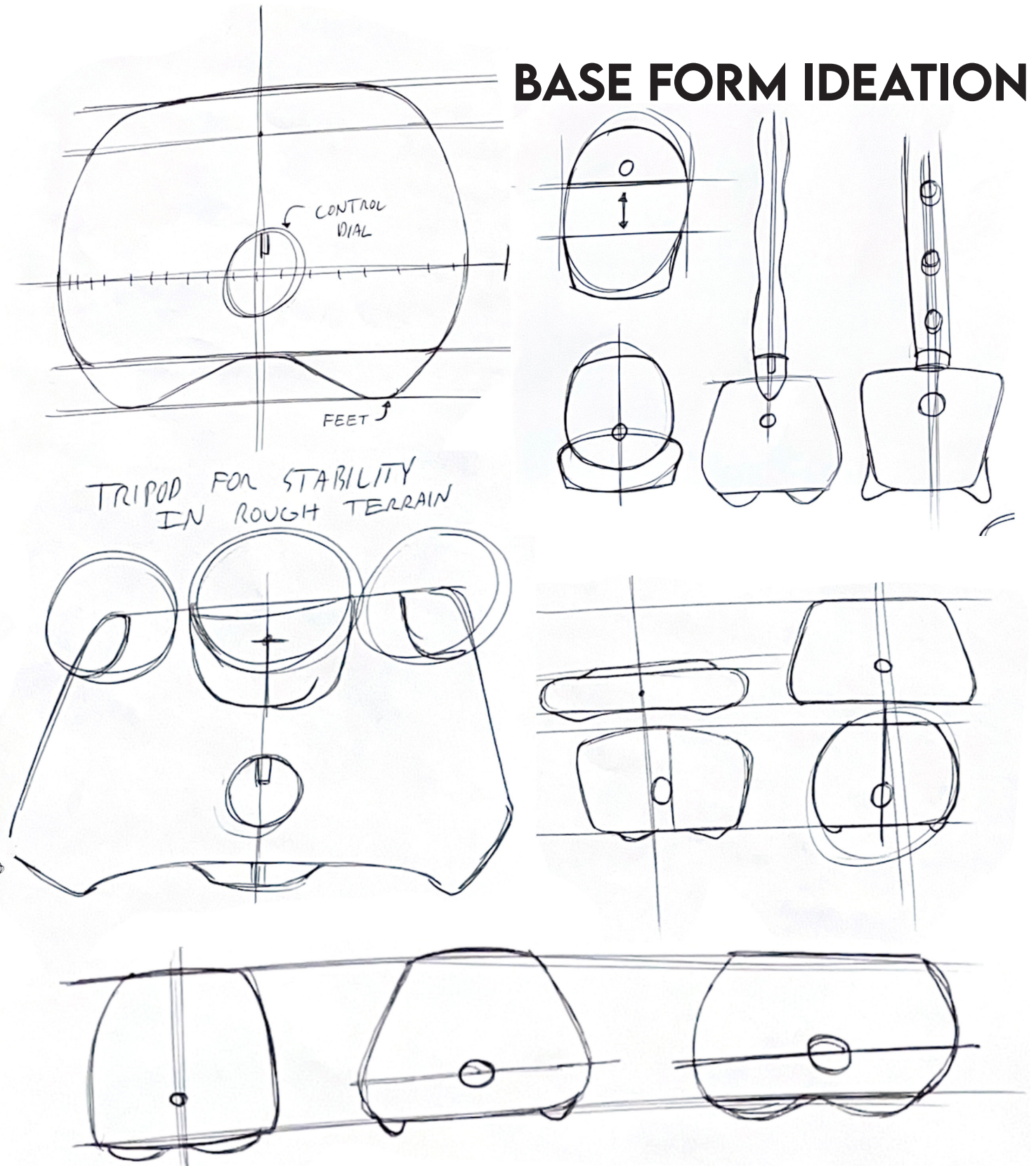
**BUTTONS TOO BIG**

**PORTS TOO FAR OUT**

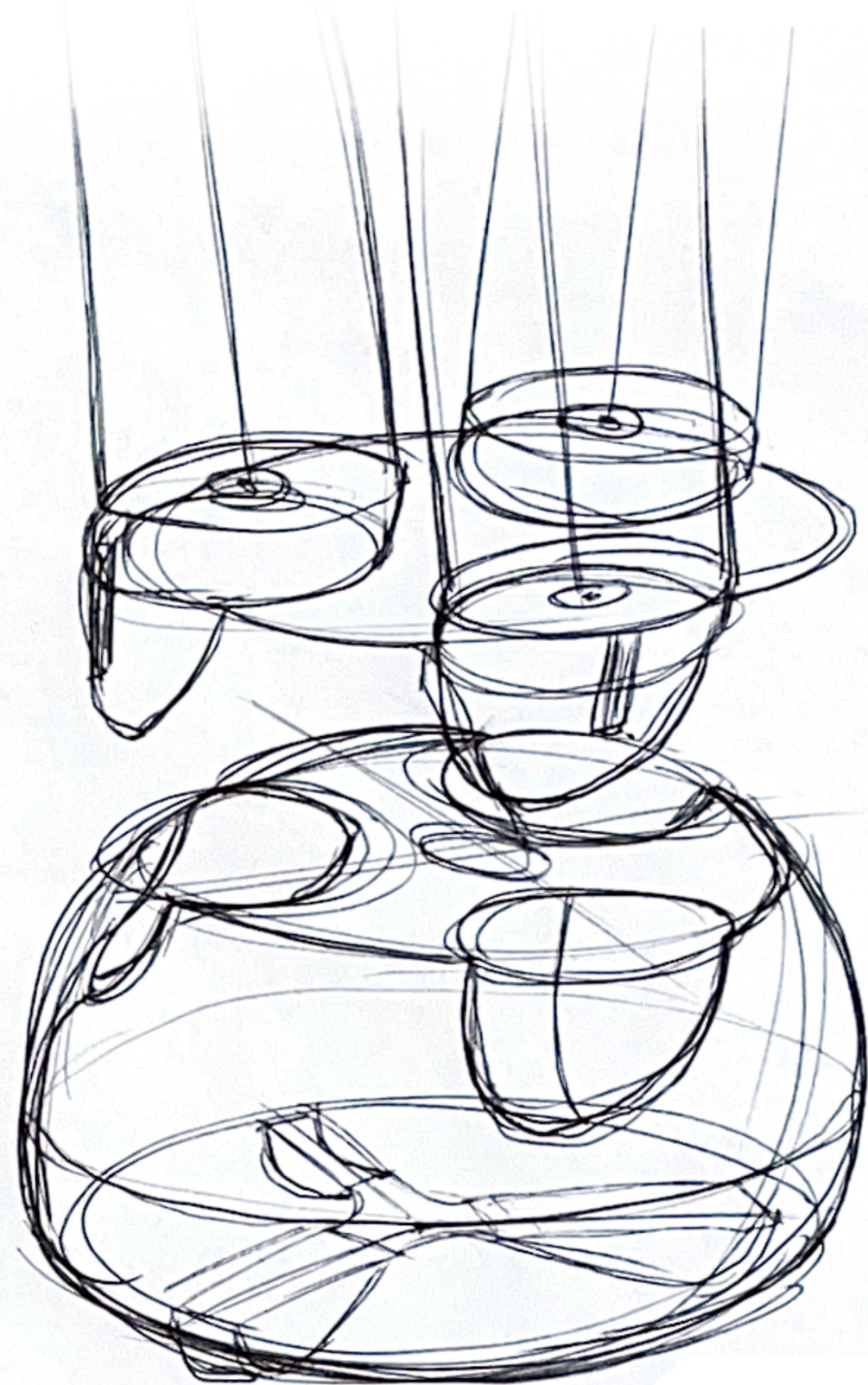
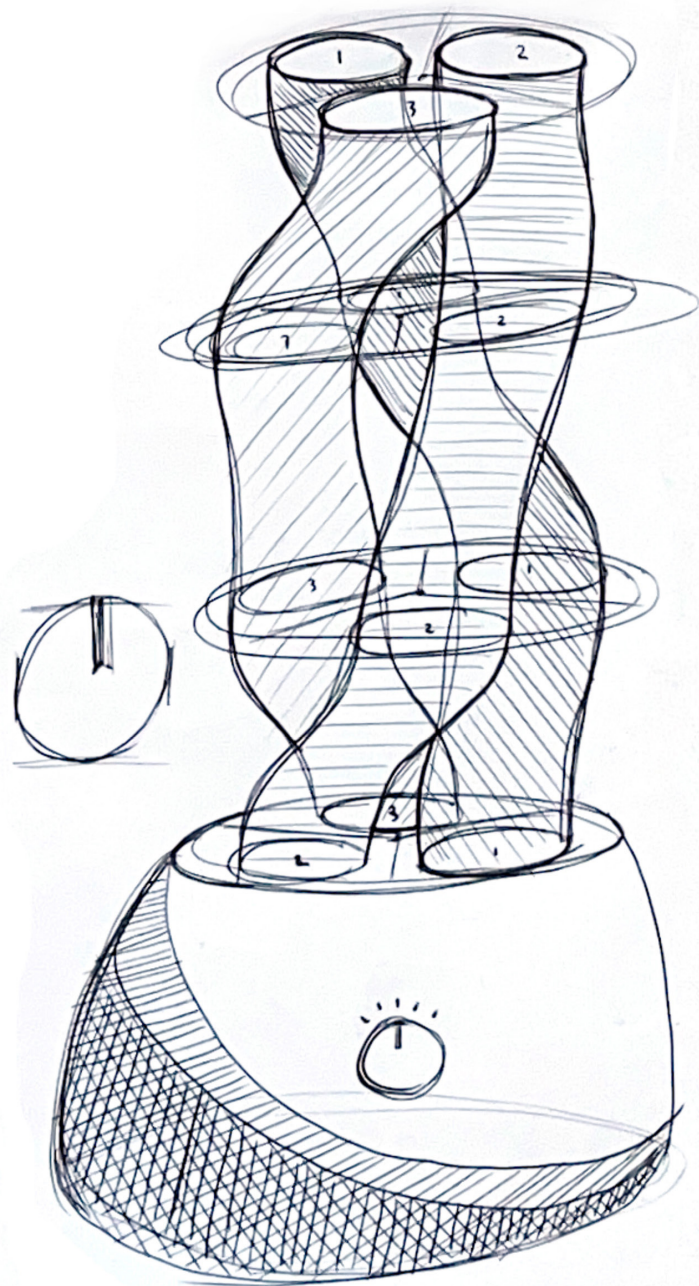
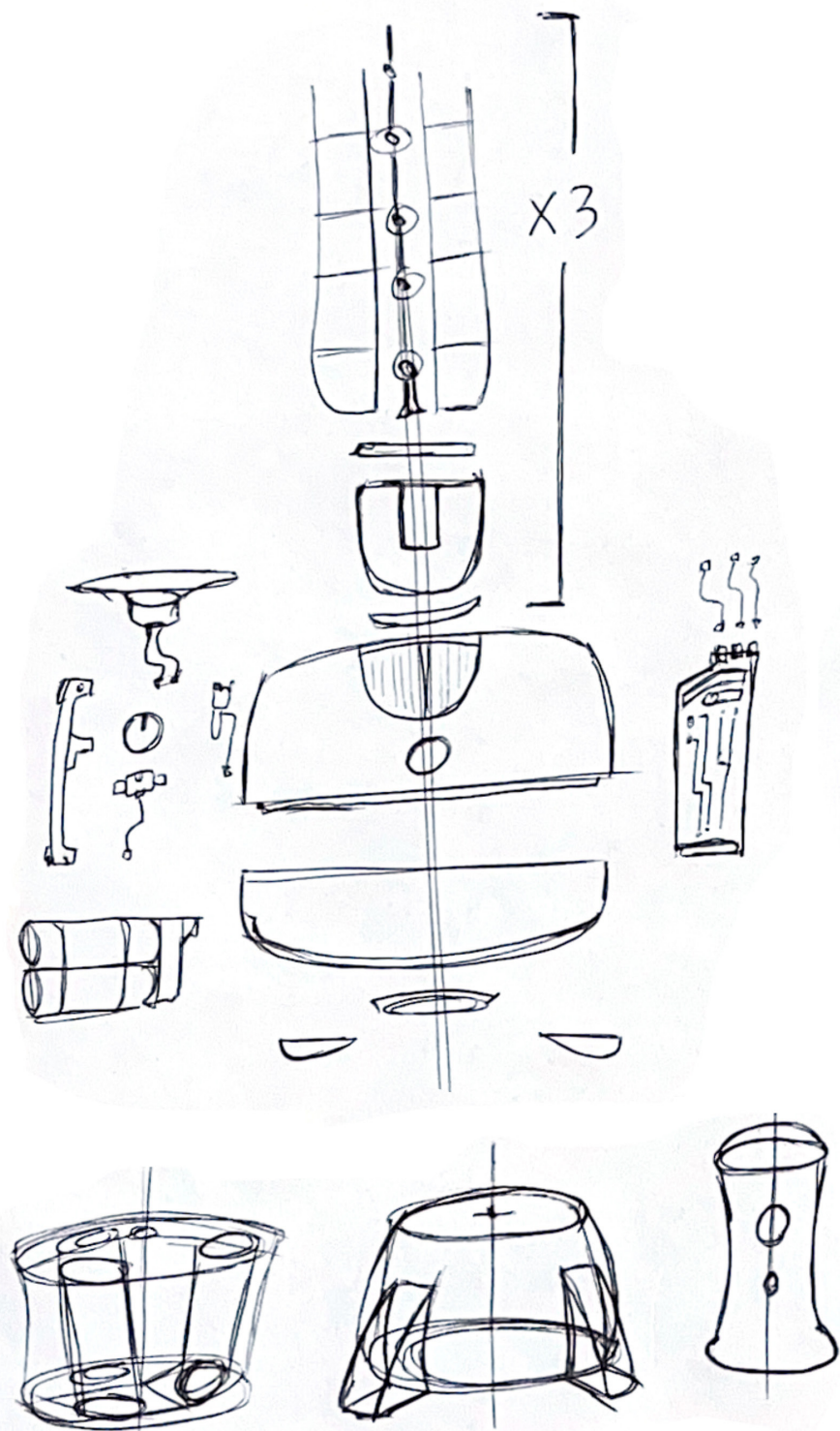
# GLOW-STICK FORM IDEATION



# BASE FORM IDEATION



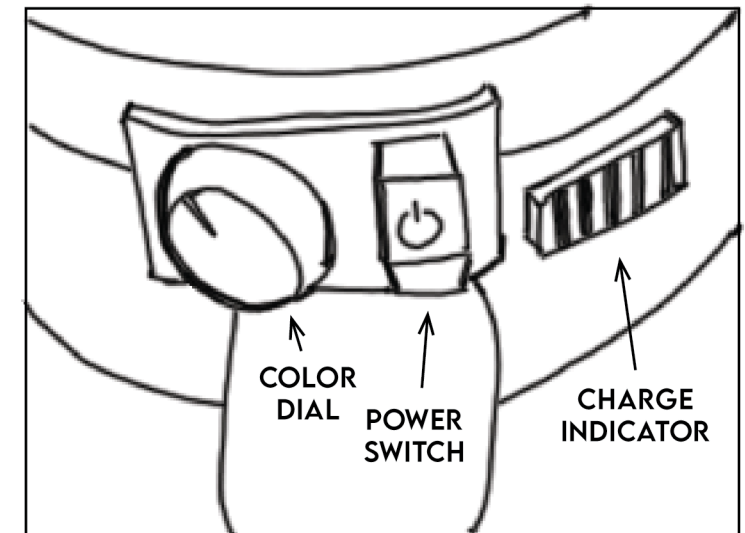
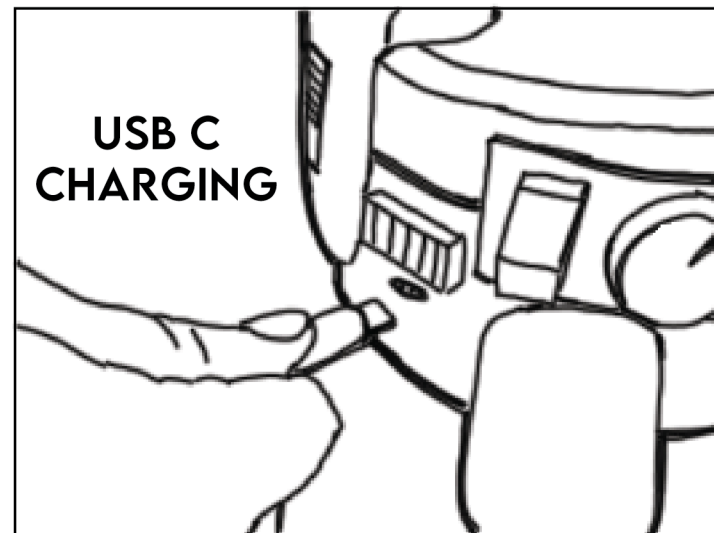
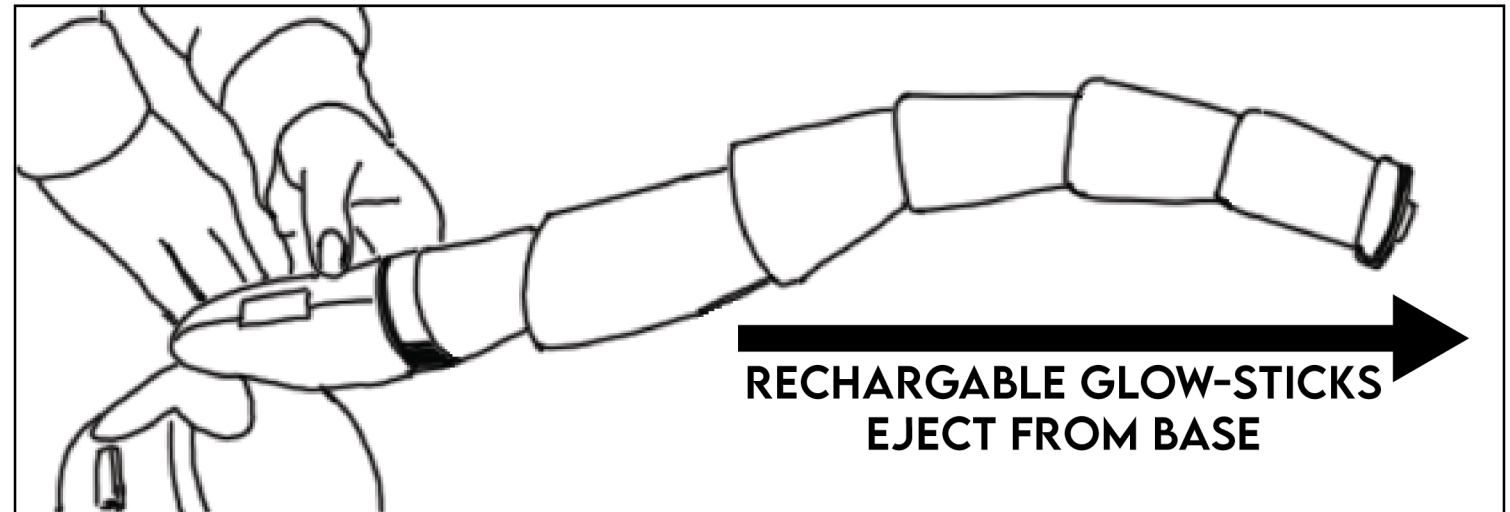
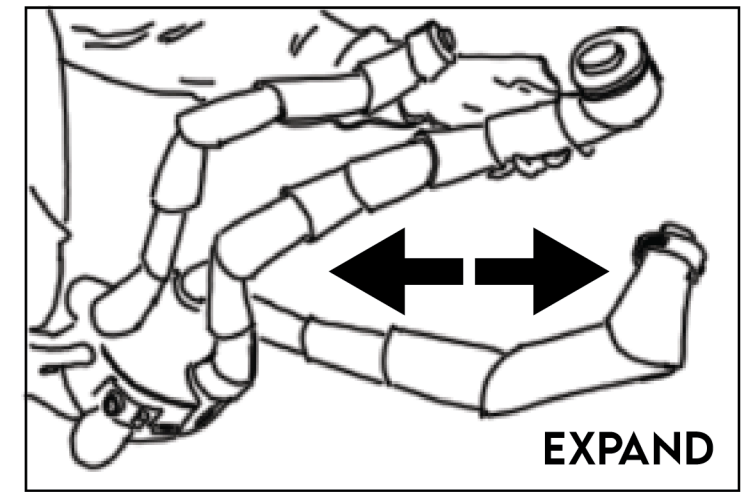
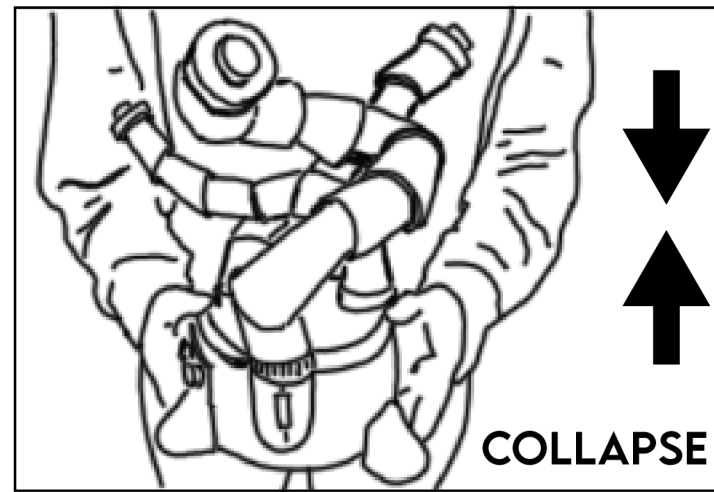
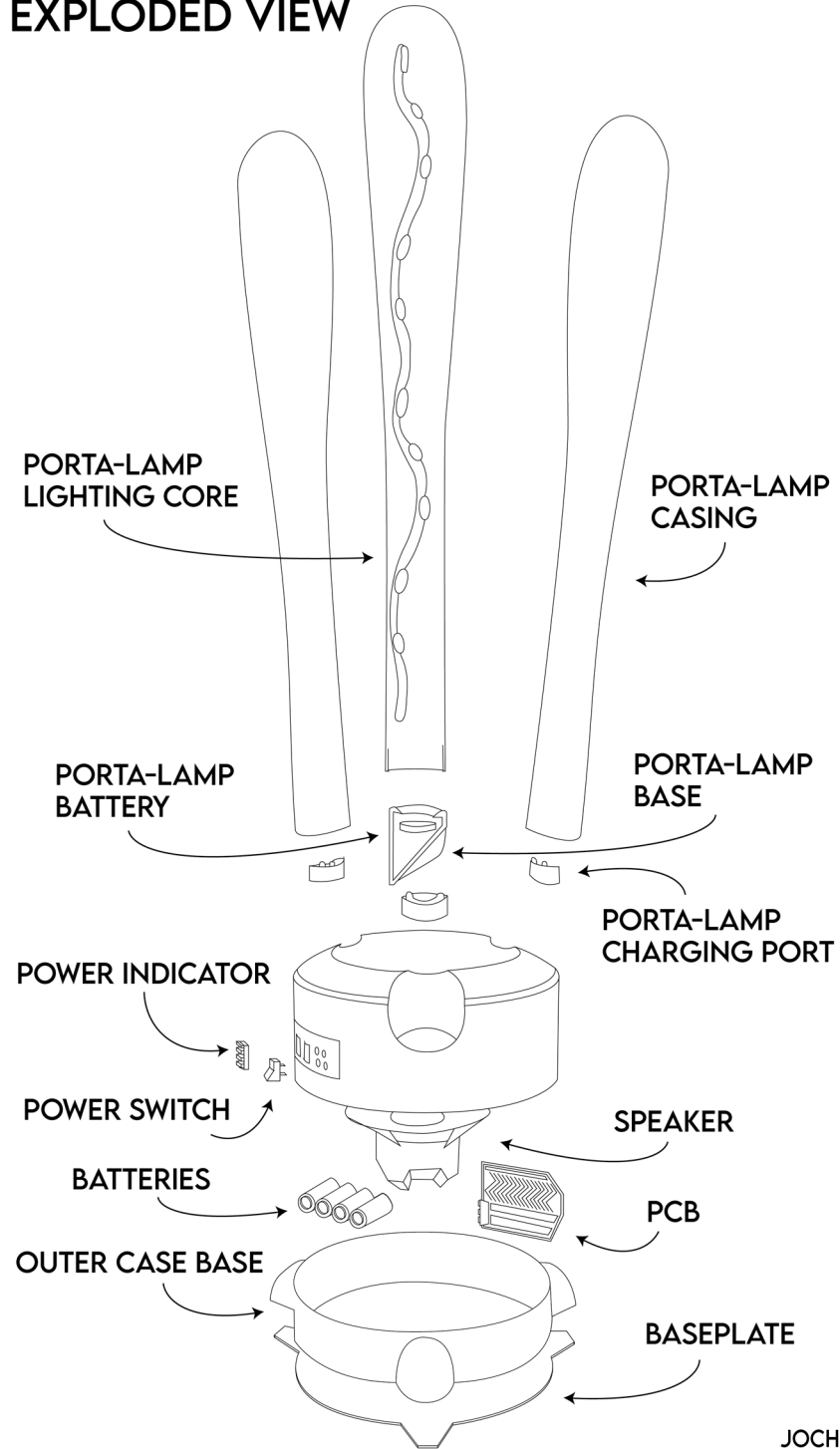
# FORM FINALIZATION

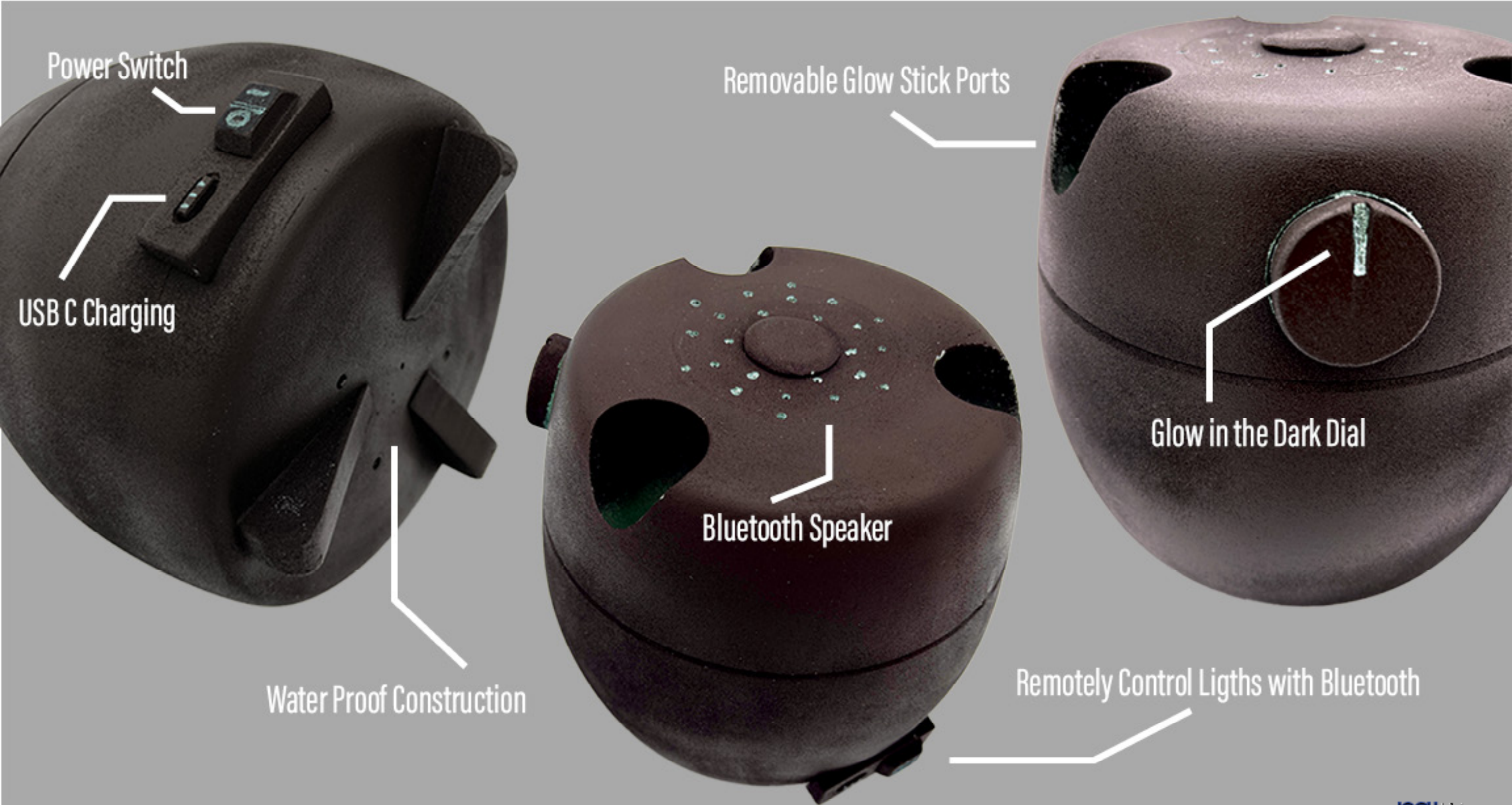




**FINAL PRODUCT**

**PORTABLE LIGHTING SYSTEM  
EXPLODED VIEW**





Power Switch

Removable Glow Stick Ports

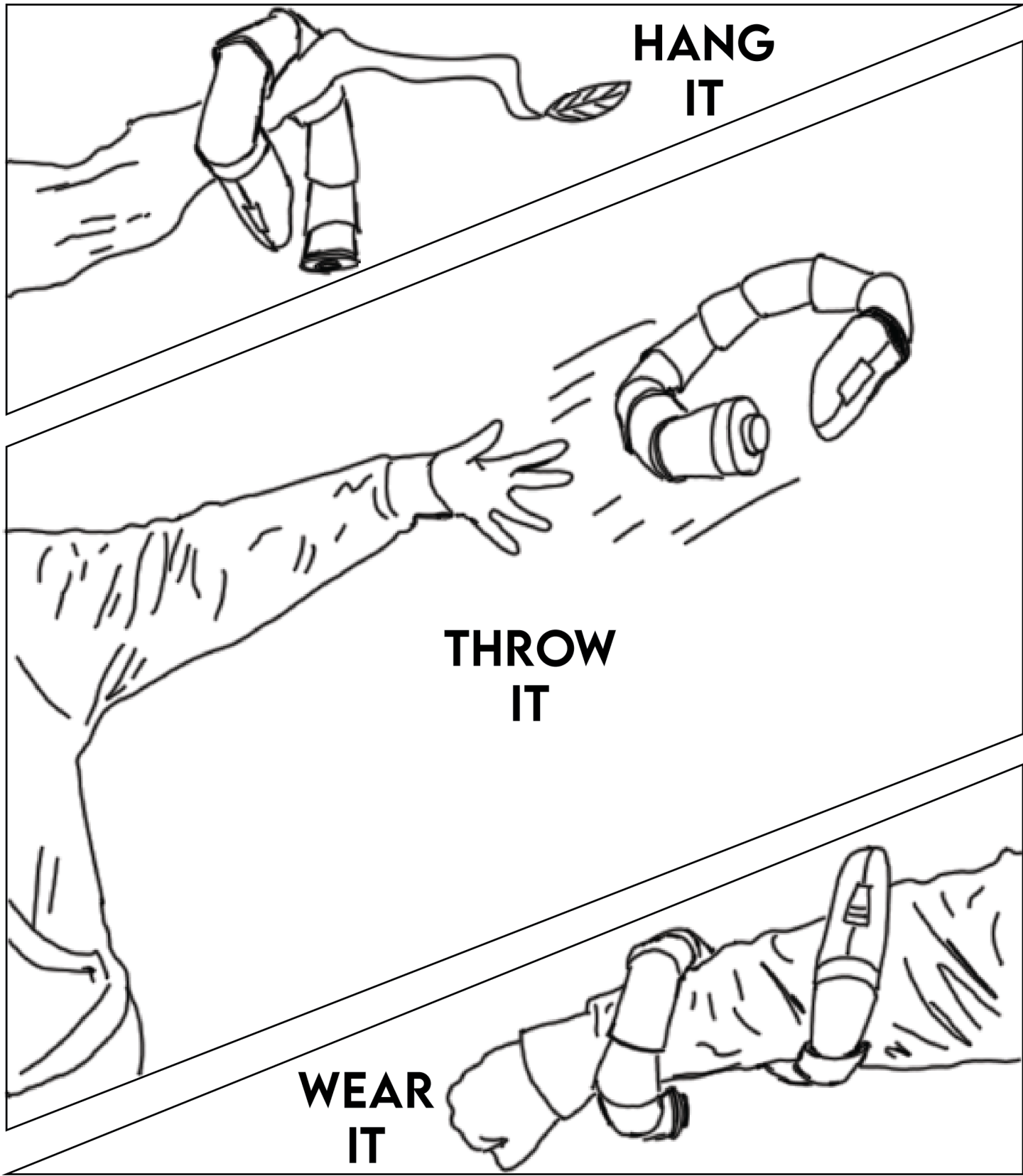
USB C Charging

Glow in the Dark Dial

Water Proof Construction

Bluetooth Speaker

Remotely Control Lights with Bluetooth



JOCH

