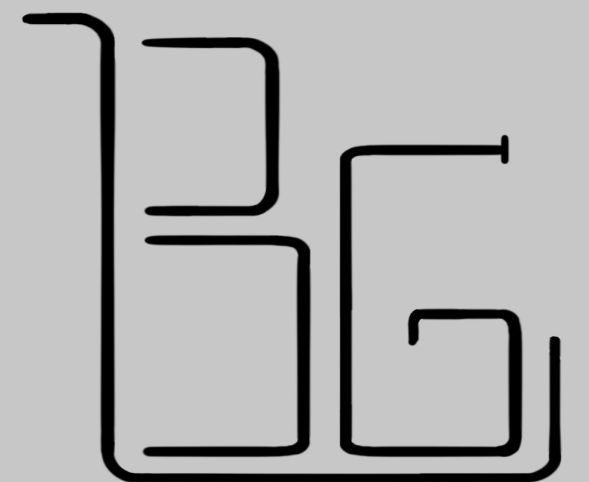


# Design Portfolio

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Brendan Gill

2024







# About Me



## Hi, I'm Brendan

---

Pursuing a major in Industrial Design with a minor in Sustainable Development, I strive to challenge myself while always aiming to learn and grow as a designer.

Whether it's conceptualizing sleek product aesthetics or optimizing functionality, I strive to bring a unique perspective to the design landscape

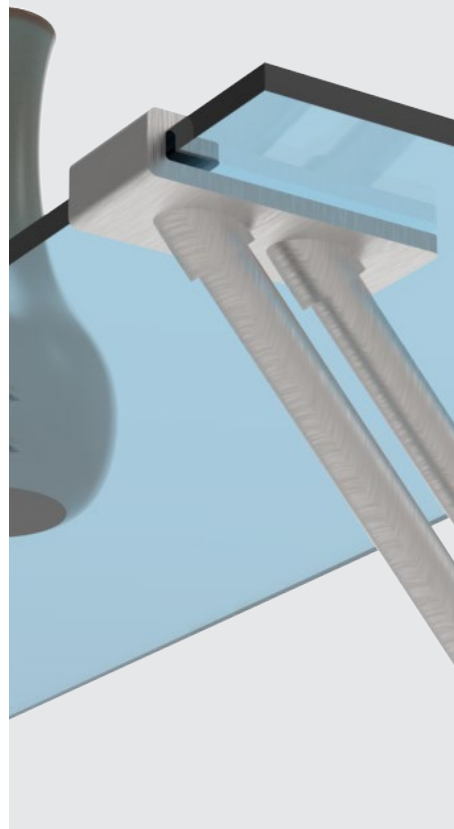
Nature plays a pivotal role in shaping my creative vision by finding beauty in its intricate patterns, organic forms, and the harmonious balance of elements.





# Table Of Contents

Skyline  
Steel



Nora



Spire



Partitone



Hydro  
Blender



Other  
Projects





## Design Prompt



Design a **simple** furniture part, component, accessory, or hardware piece that can be sold by Mockett and manufactured domestically

Requirements:

- **Clean** and **simple**
- Basic metal, plastic or glass parts
- **Design is the product**, no bold colors and minimal aesthetic additions
- Easily Manufactured
- Extreme **Functionality**



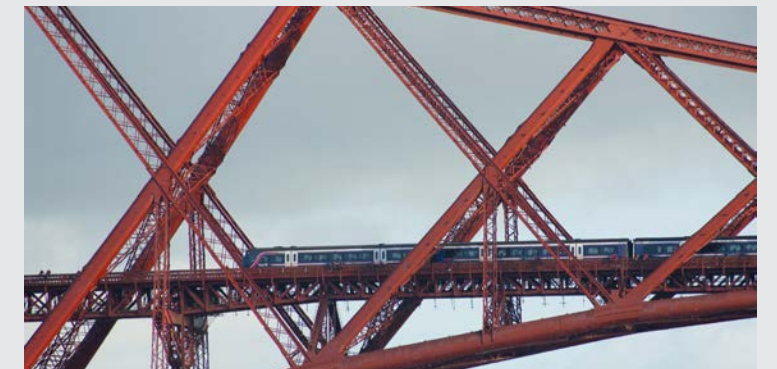
Bridge Inspired

# Shelf Brackets

Home and Office

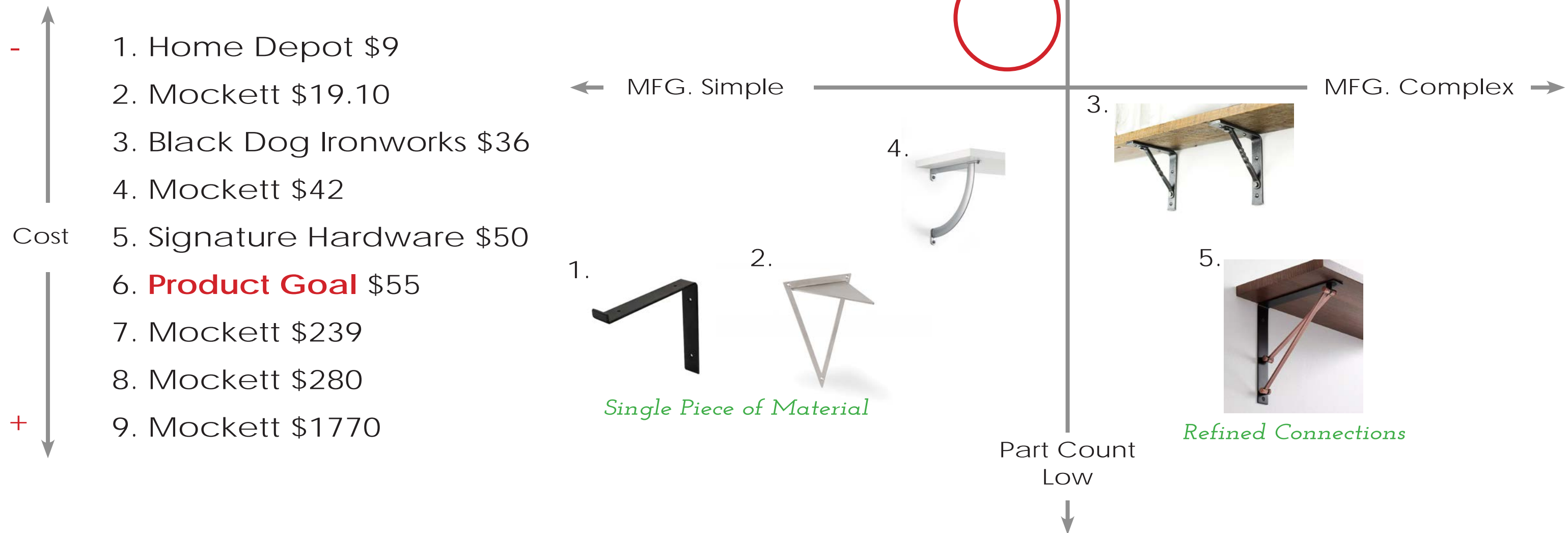


Current Mockett Products

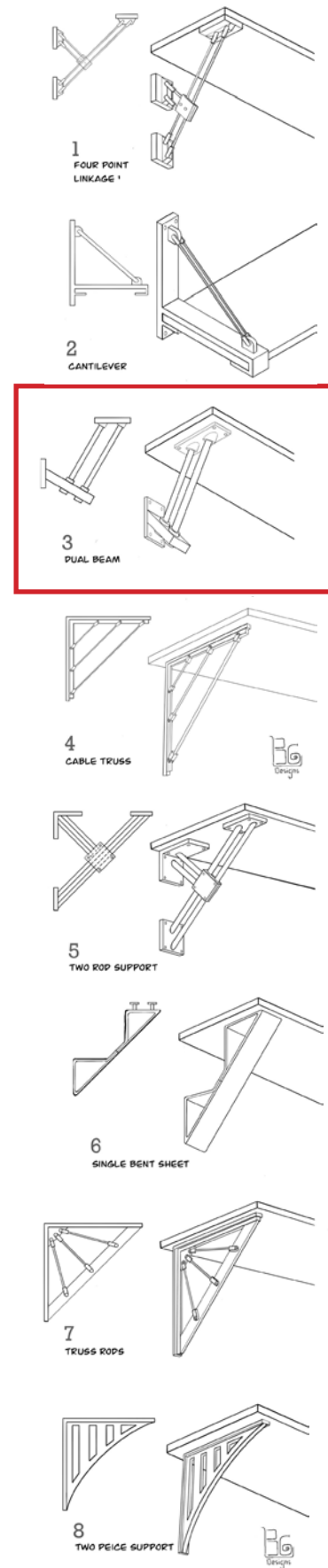


## Opportunity Quadrant

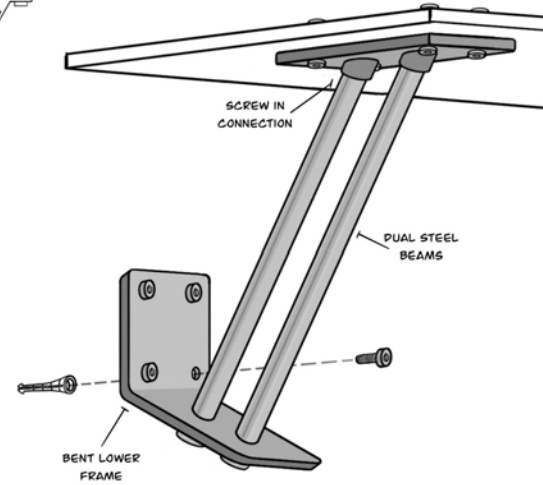
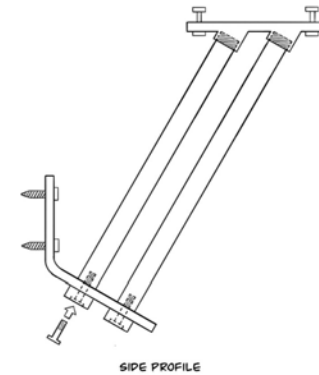
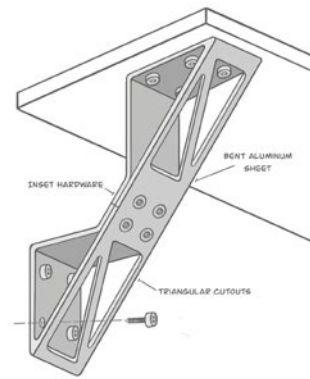
Opportunity exists in an easily manufactured shelf bracket that is visually impactful yet simple







*Screw in connection  
only for wood*



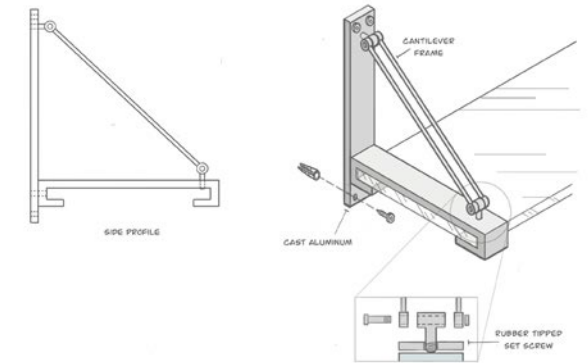
*Strong and Simple*

MFG. Simple

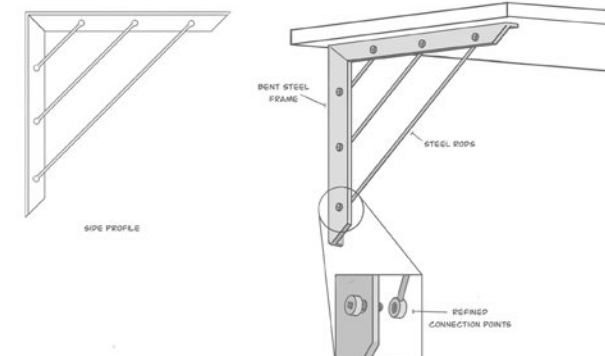
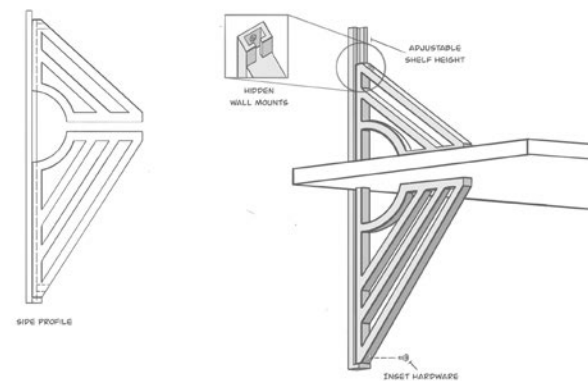
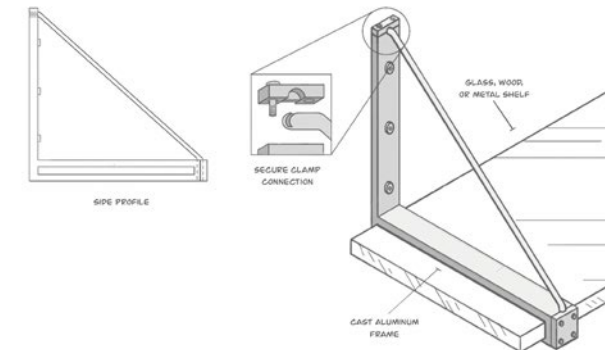
MFG. Complex

Part Count  
High

Part Count  
Low



*Complex bar  
connections*

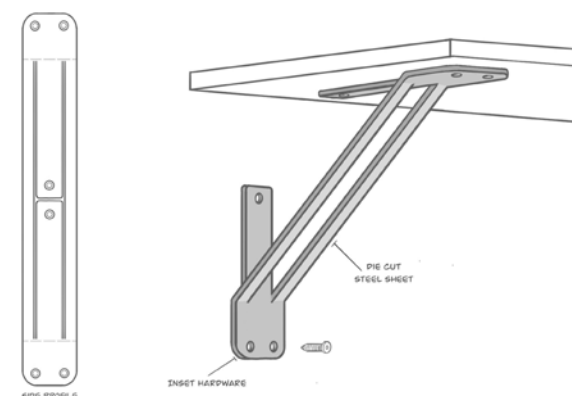


**Essential** components only

Strong visual presence

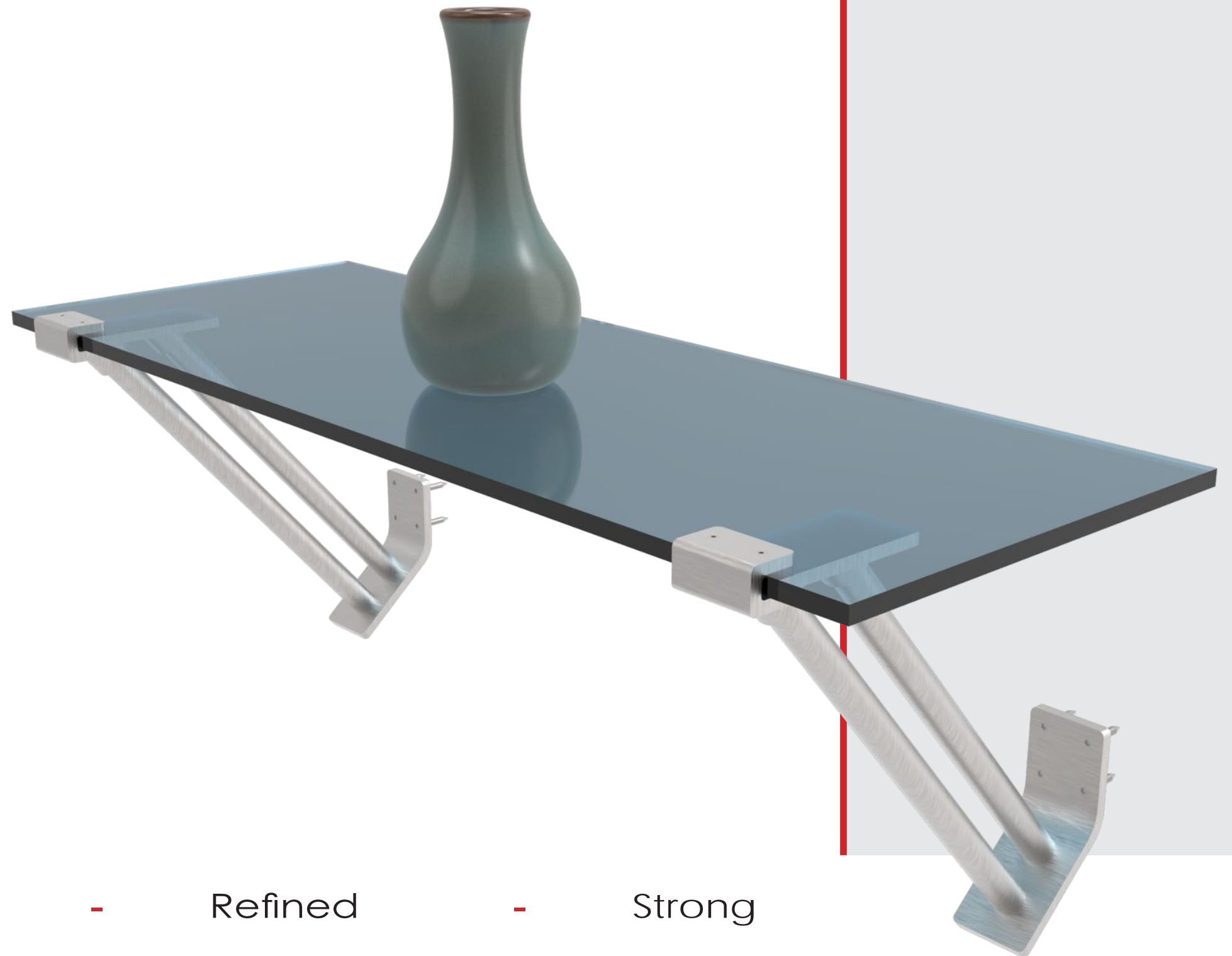
Integrated **structural** components of **bridges**

*Single Piece of Material*



# Skyline Steel

## Shelf Bracket



Simple

-

Refined

-

Strong



# Stainless Steel Components

Why Stainless Steel is the optimal material:

- **High load weight**
- Sustainable - most recycled material on Earth
- Adaptable for secondary manufacturing processes
- Durable

Satin  
Nickel

Matte  
Black

Polished  
Chrome

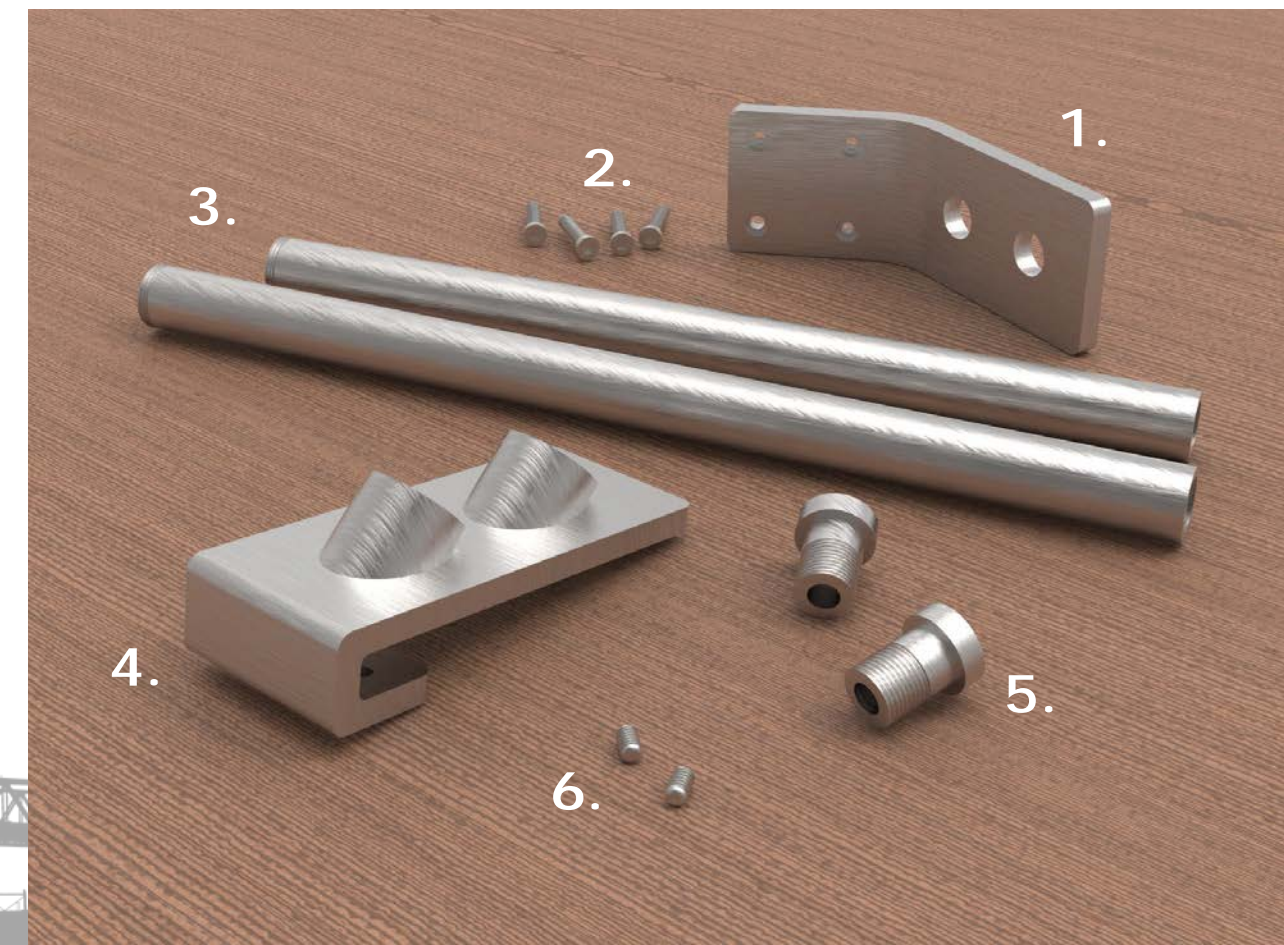
## Manufacturing Processes:

Die Cutting and Metal Bending - **1**

Metal Extrusion - **3**

Casting - **4 And 5**

Secondary Milling - **3, 2, And 5**



## Finishes

Stainless Steel is a great base for **electroplating finishes**

**Mockett Finish options shown:**

Metallic Silver (23)

Satin Nickel (17S)

Black (90)

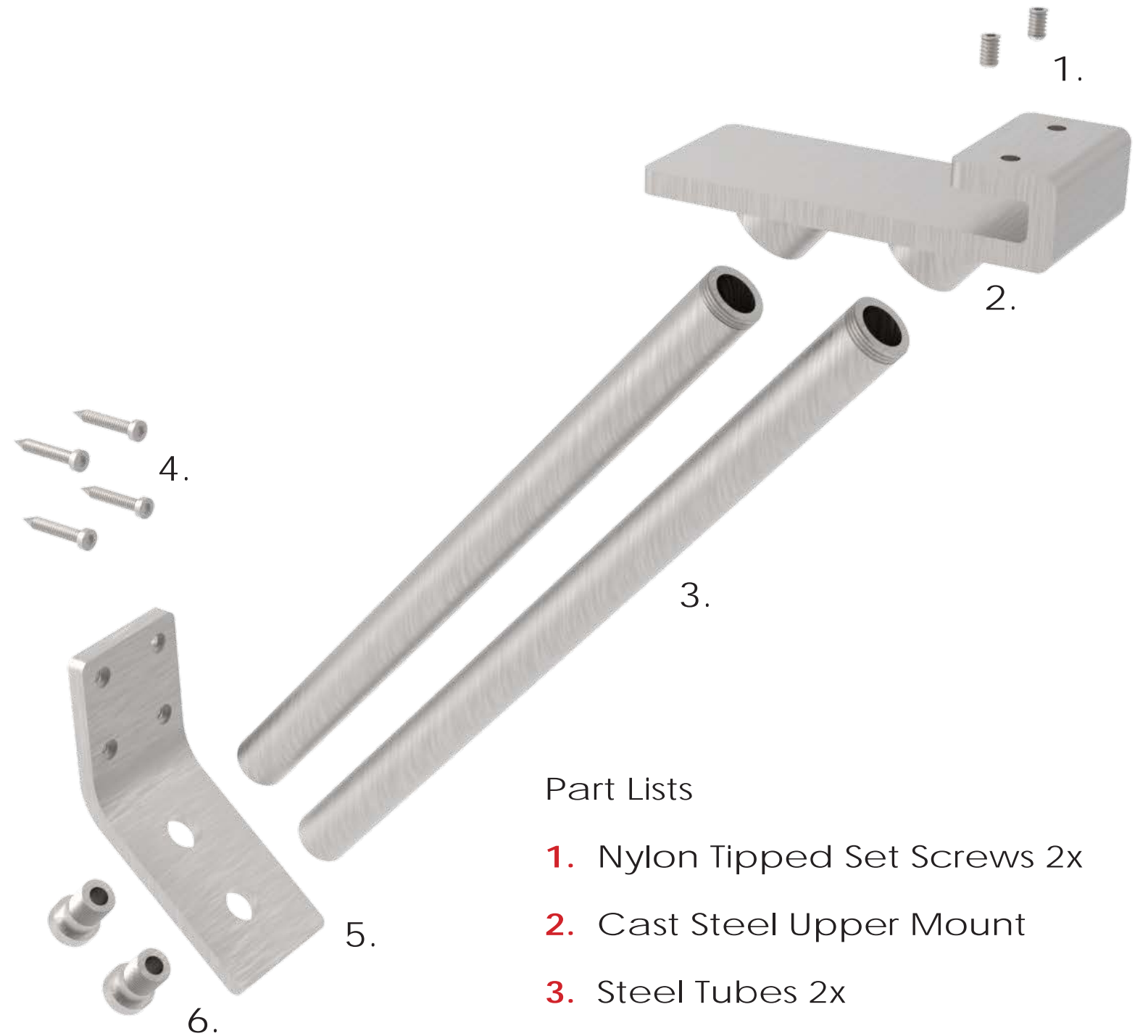
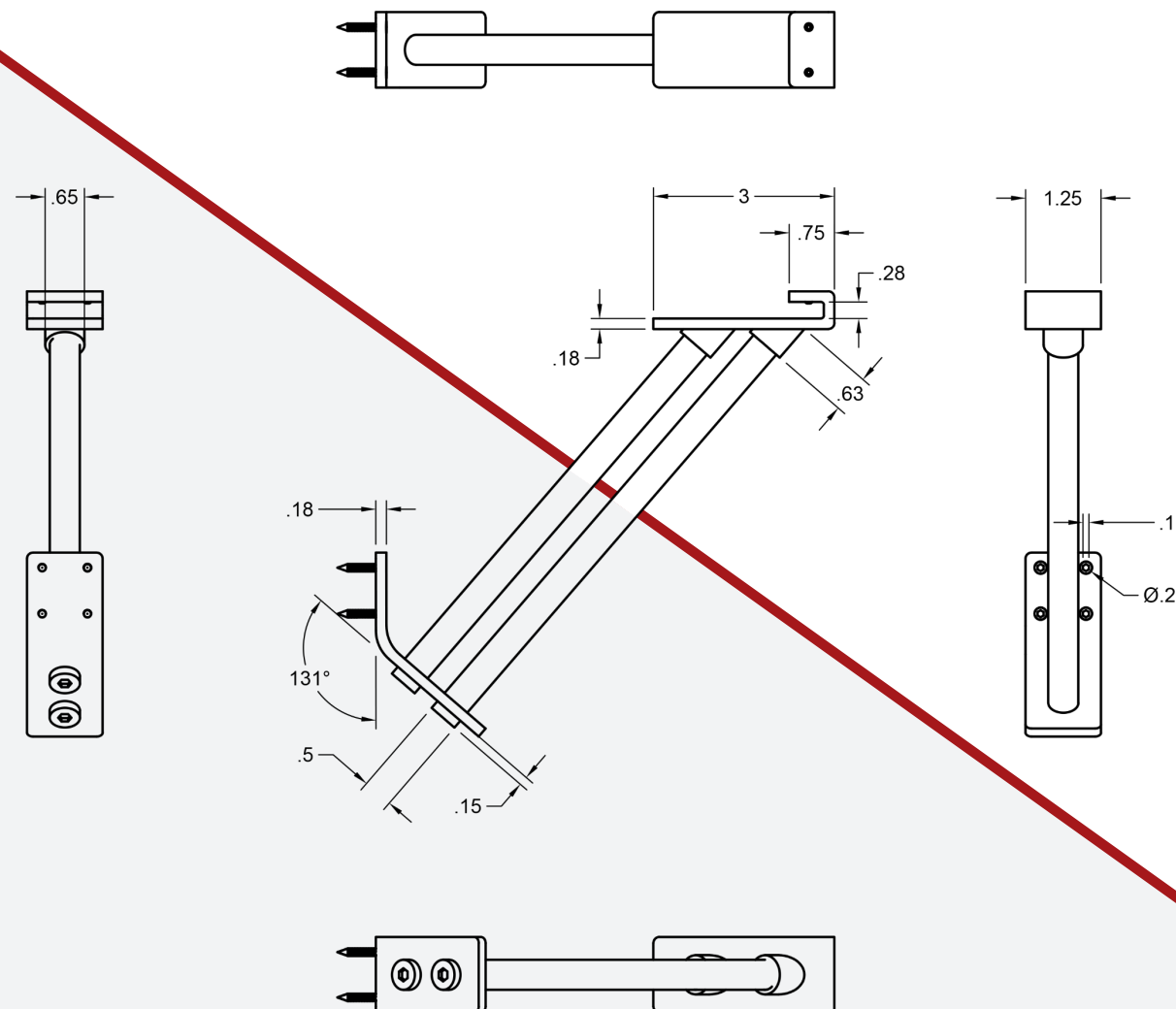
Polished Chrome (26)



Different parts can also have  
different finishes for **two tone effects**



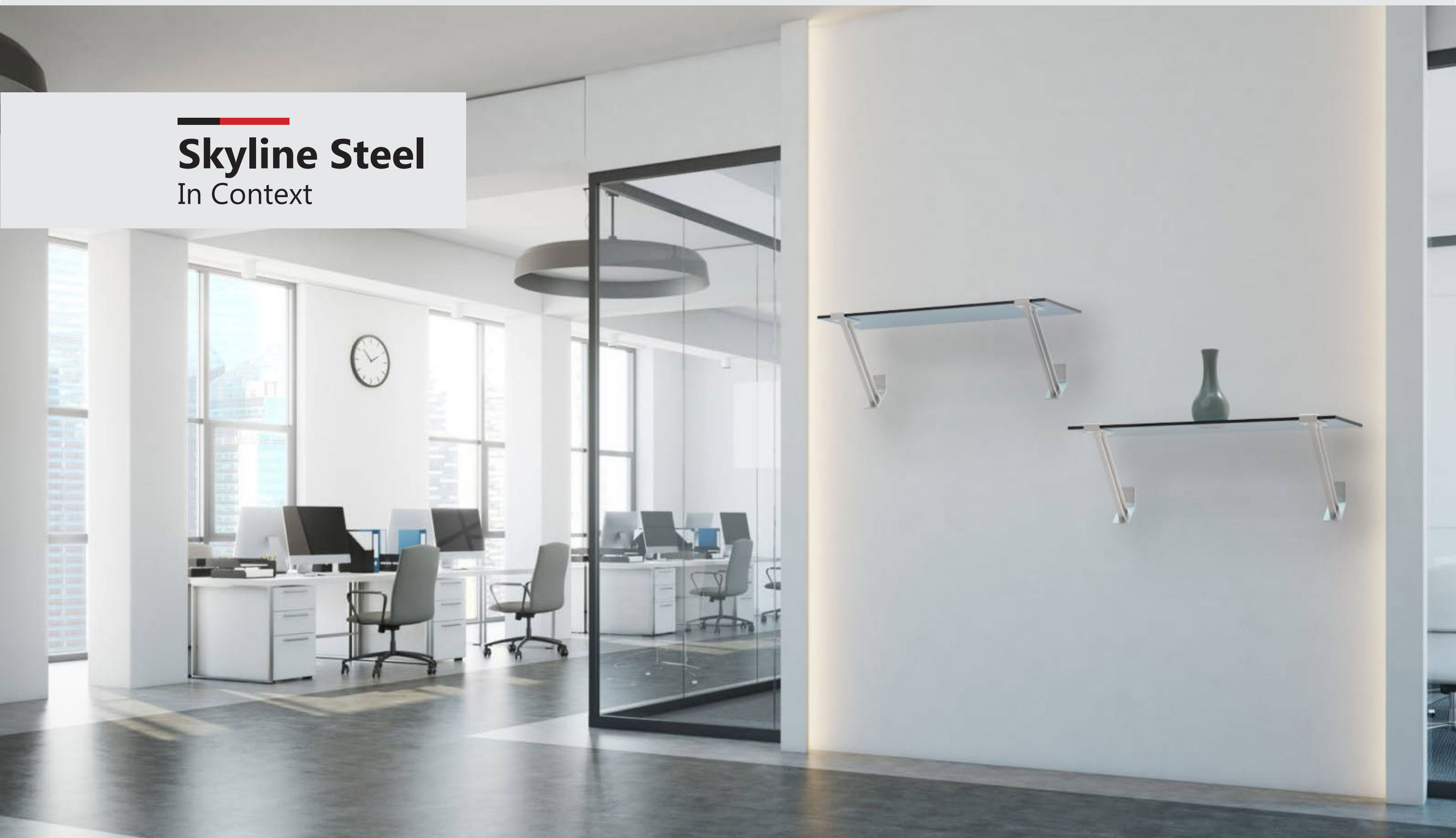
## Skyline Steel Components



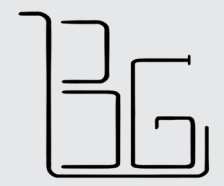
### Part Lists

1. Nylon Tipped Set Screws 2x
2. Cast Steel Upper Mount
3. Steel Tubes 2x
4. Wall Mounting Screws 4x
5. Bent Steel Lower Mount
6. Tube Hex End Caps 2x

**Skyline Steel**  
In Context



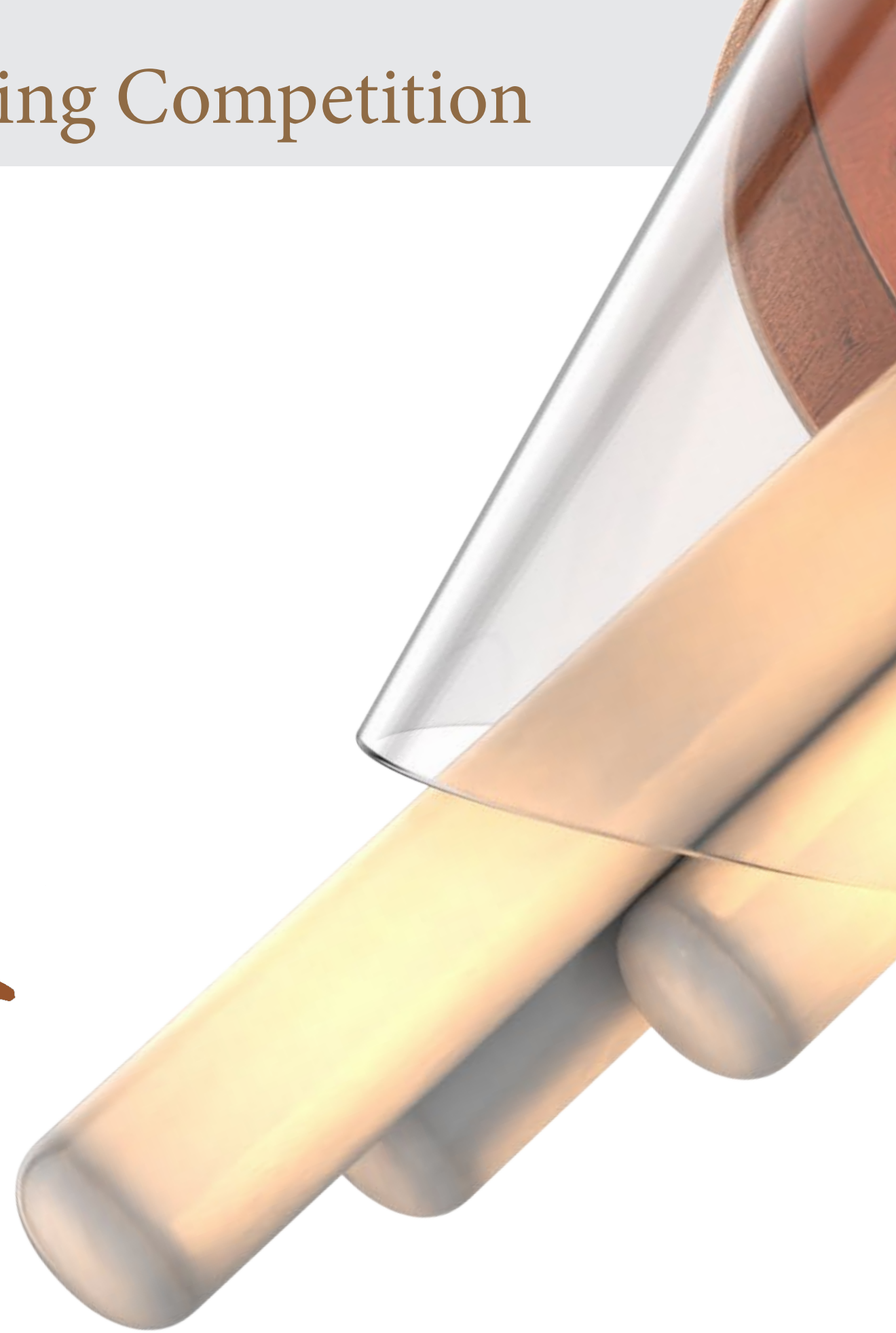




# | Robert Bruce Thompson Lighting Competition

# Nora

Outdoor Pendant Light





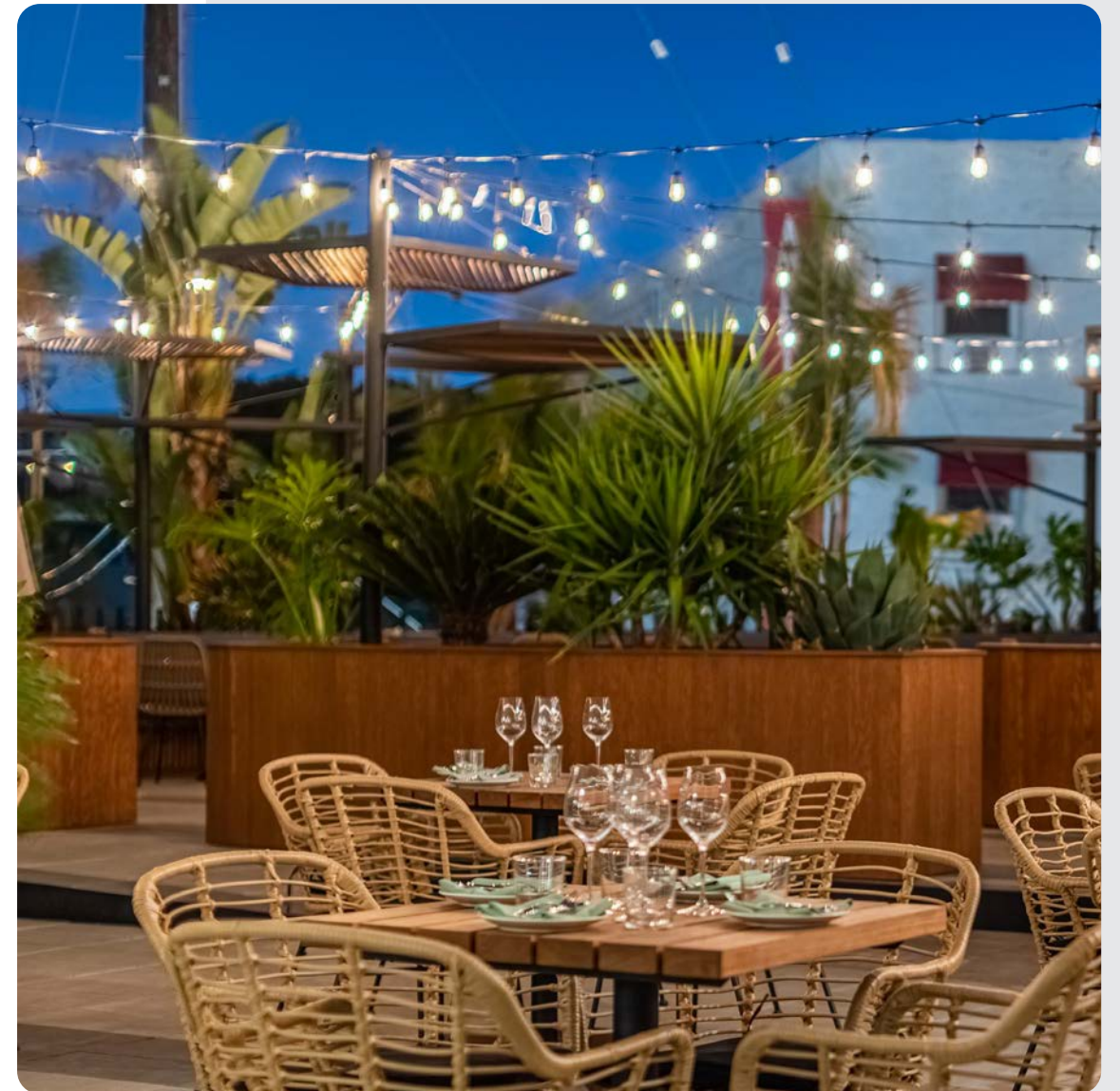
# Competition Brief

12

A restaurant chain has hired us to **make a pendant light** for their **outdoor seating areas**.

The light should:

- withstand the **outdoor environment**
- be easily installed
- set the **brand language** of the restaurant
- provide general ambient light for the area
- **easily manufactured** with 5,000 units needed







Generally located in **metropolitan** areas but have numerous locations

Casual dining with a high end atmosphere

Menu consists of **small plates with wine pairings** that are light and flavorful



## Materials:



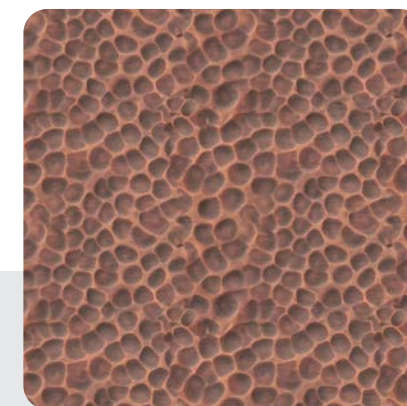
Ceramic



Brass



Rattan



Copper



Glass

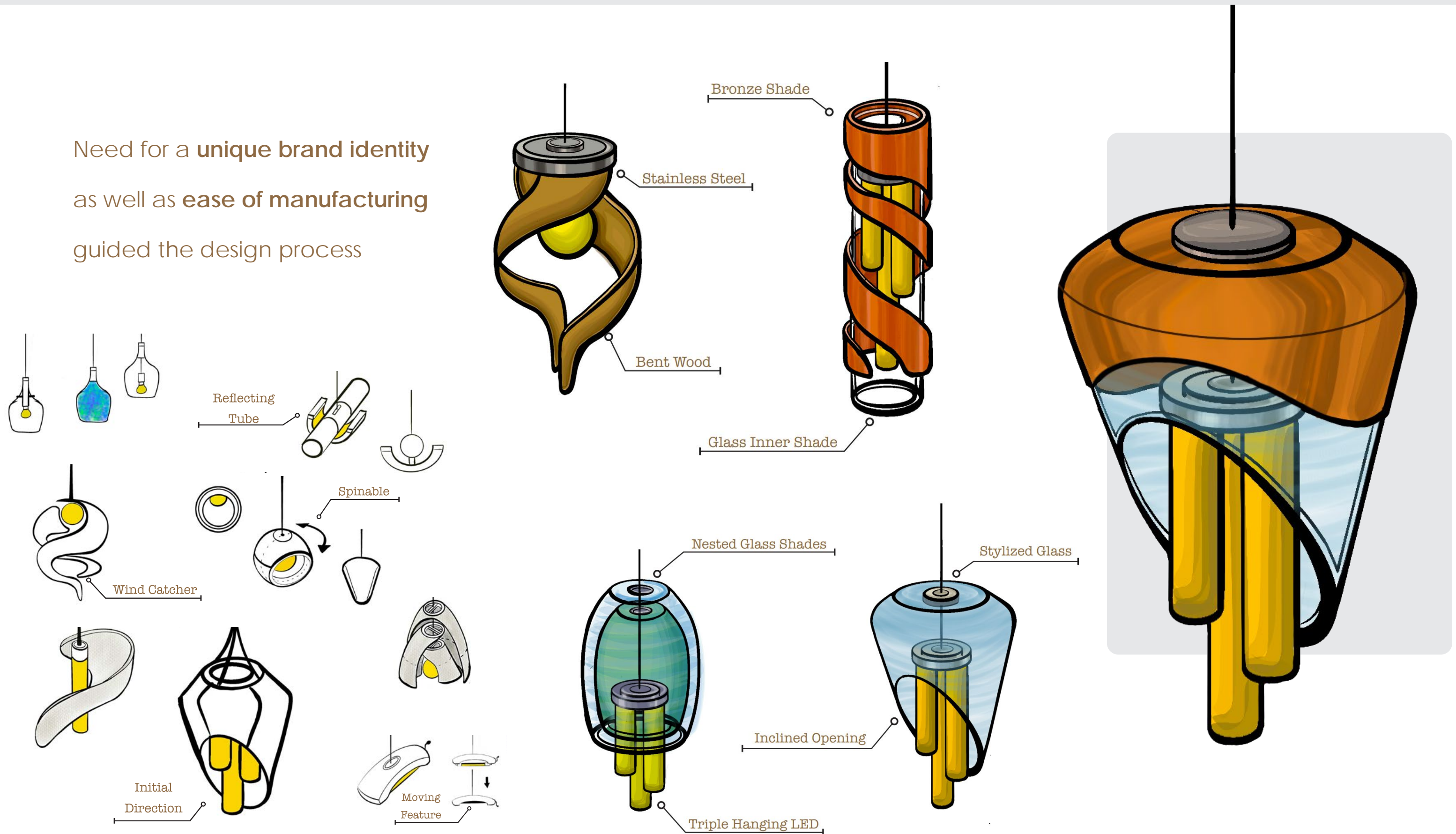




# Sketch Progression

14

Need for a **unique brand identity**  
as well as **ease of manufacturing**  
guided the design process







# Model Progression

15



CNC Cut



Assembly



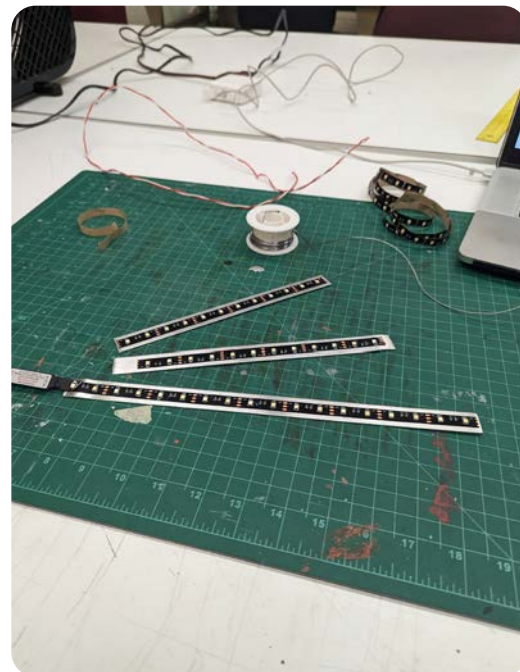
Rough Buck



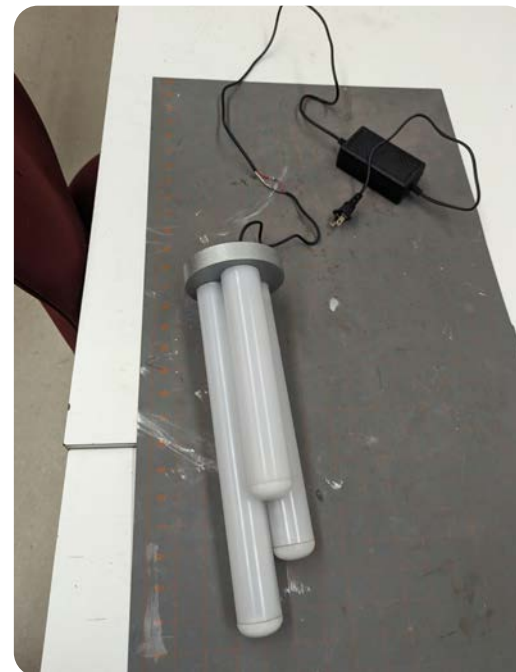
Primed &  
Sanded Smooth



Bronze Shade  
Fit Up



LED Wiring and  
Mounting



Initial Lighting  
Setup

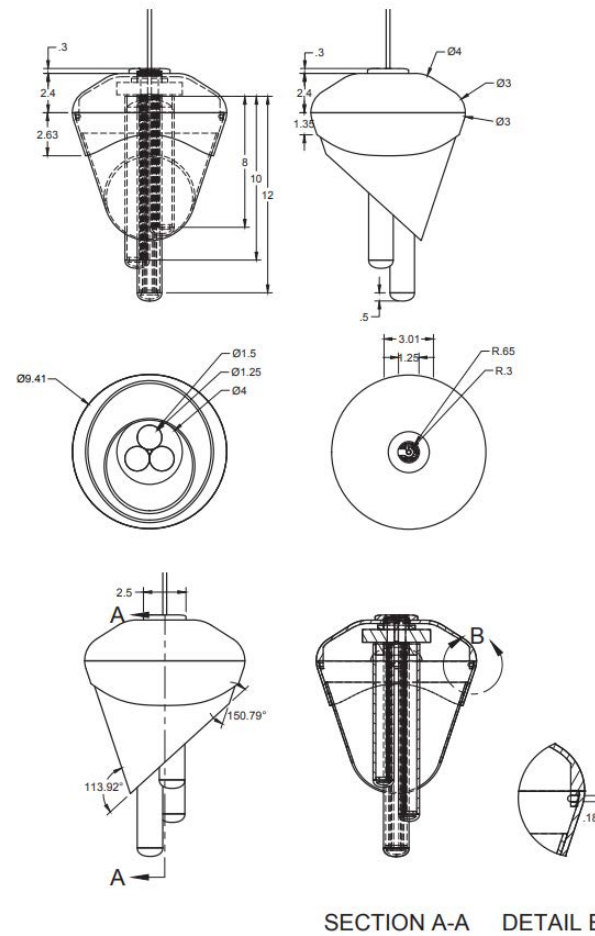


Pre-Assembly



Final Model





Orthographic



LED on  
Mounting Plate

Screw Cap

Upper Bronze Shade

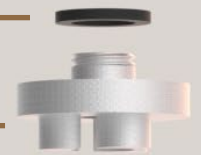
Lower Bronze Shade

Rubber Spacer

Light Base

Glass Shade

LED Diffuser Tubes and  
Caps



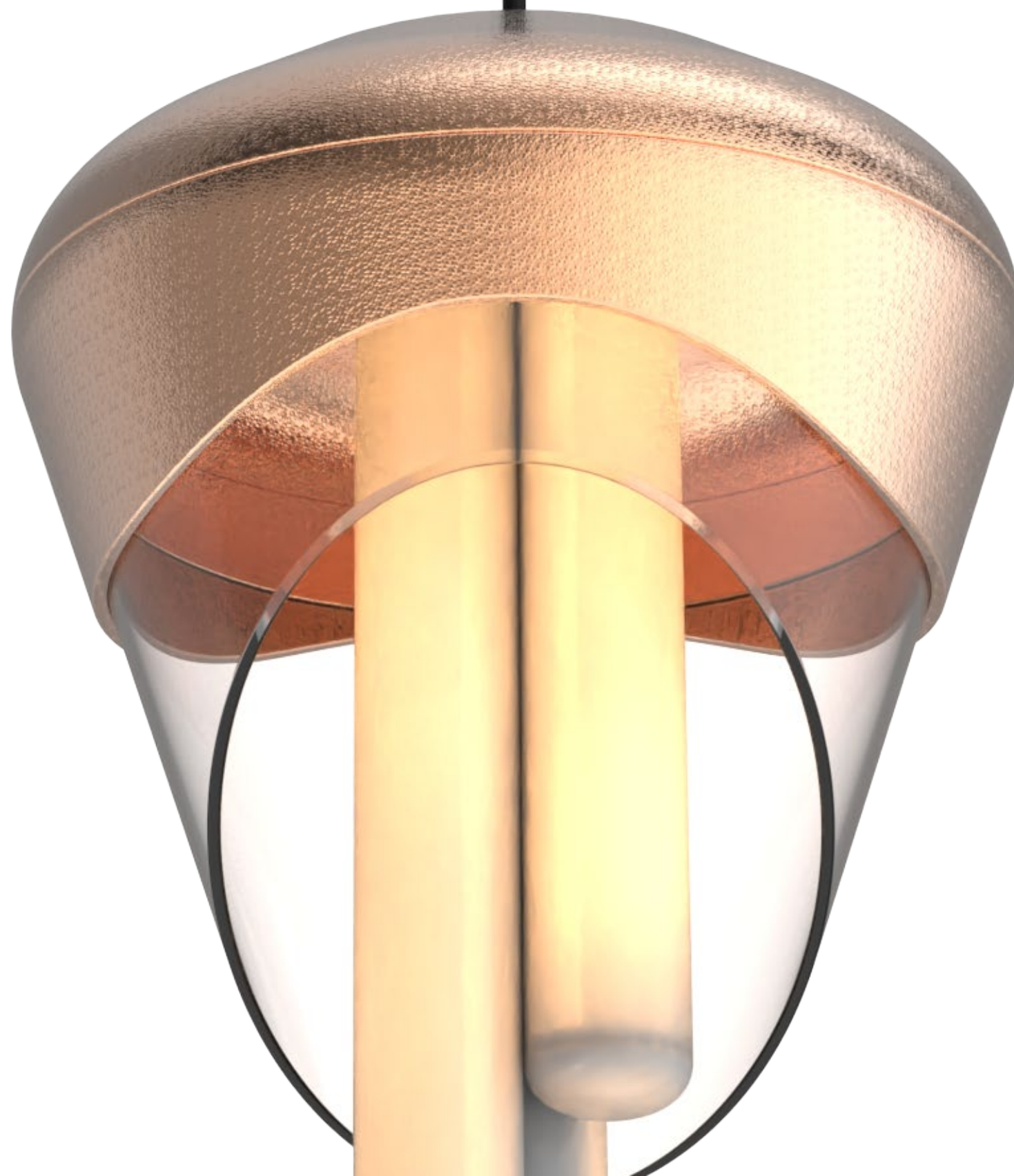
Wire Mount

Made to be easily installed and taken apart, Nora is ideal for **various outdoor patio layouts** as well as compact storage



# Nora

Incorporating **smooth and flowing** curves of delicate glassware, Nora sets the tone of a **welcoming and warm** atmosphere for our restaurants



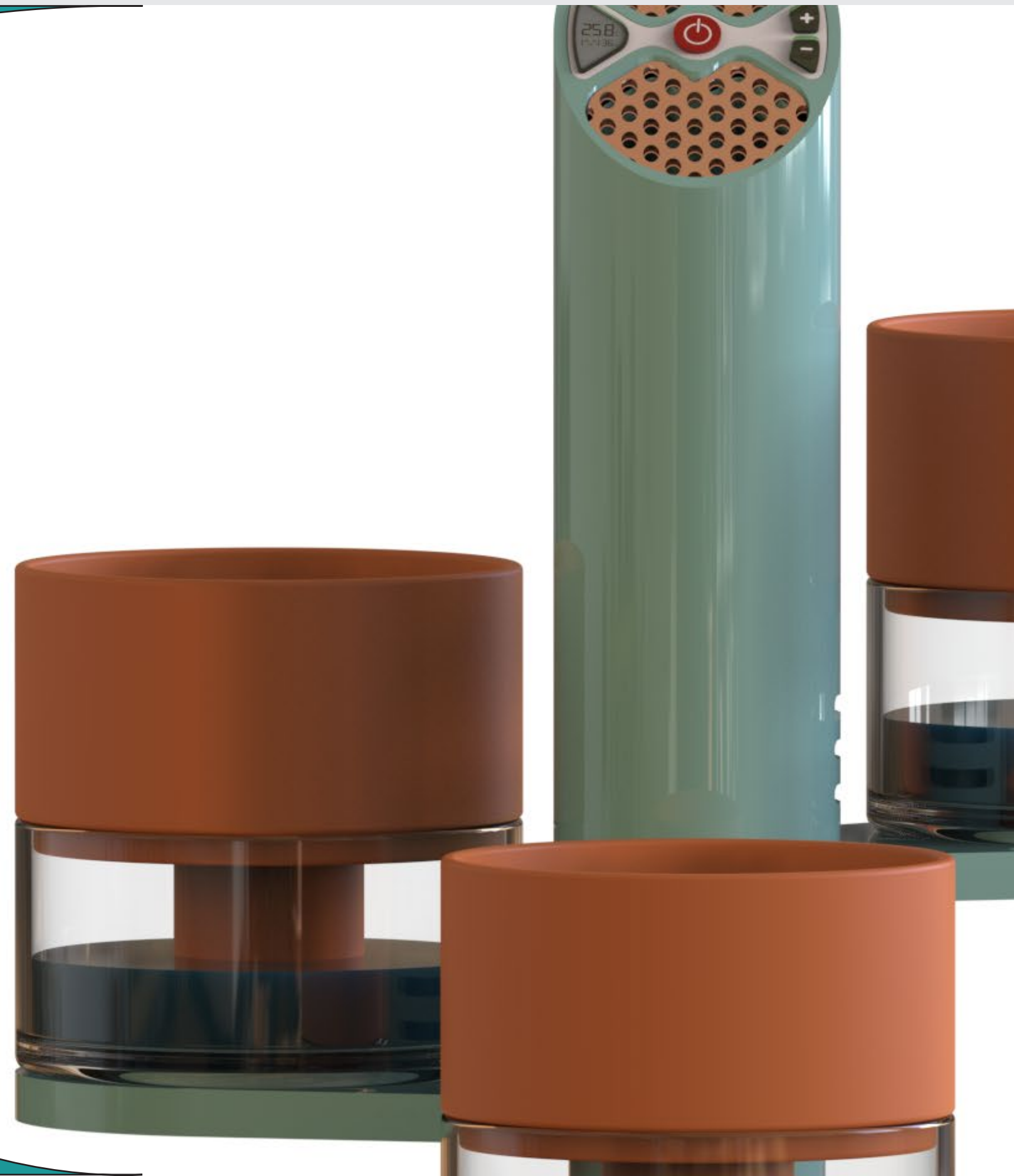






# Spire

Plant Tower & Humidifier







Make or redesign a **housewares product** that emphasis creativity, originality, merchandise presentation, and professionalism

THE  
INSPIRED  
HOME  
SHOW.®





Homes tend to **dry out during the winter** due to cold air holding less moisture and heating systems

The average humidity for a home in winter is between **25-30%** but many indoor plants do best at a relative humidity of **70-80%**

Plants will **benefit from an increase in humidity** within the home



AIR IS NORMALLY  
DRIER IN WINTER



HEATERS REMOVE A  
LOT OF MOISTURE  
FROM THE AIR



HIGHER HUMIDITY  
MAKES YOUR  
HEATER WORK LESS



STAY COMFORTABLE  
ALL WINTER WITH A  
HUMIDIFIER



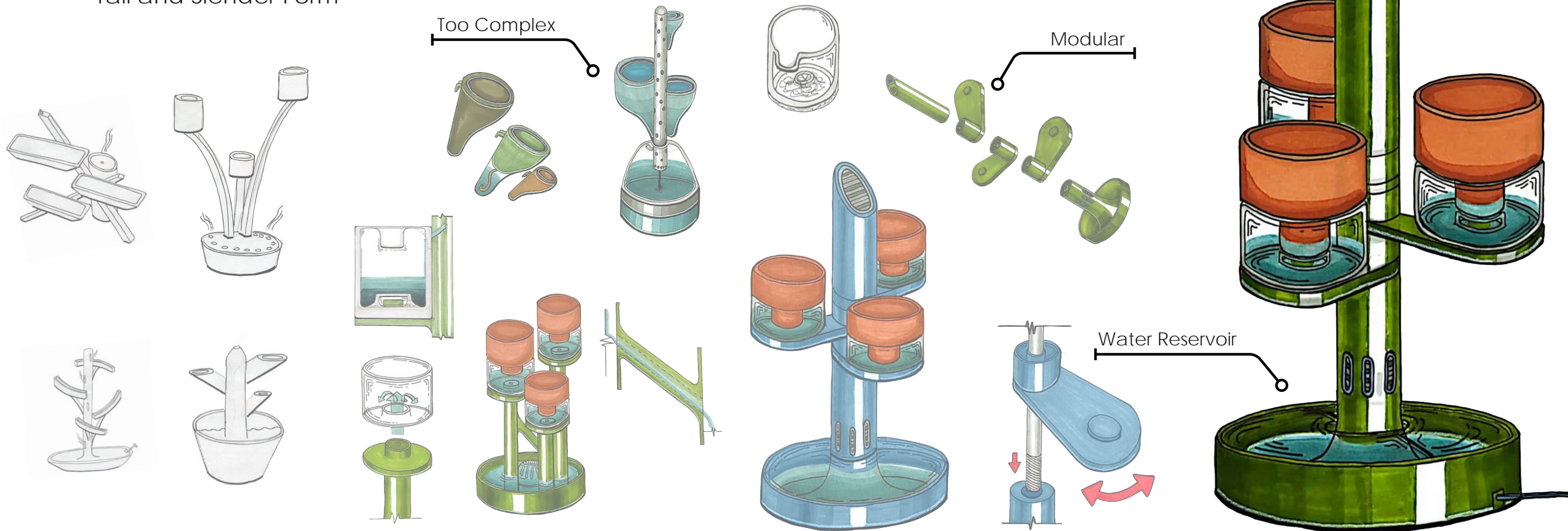


# Sketch Progression

24

## Sketch Goals

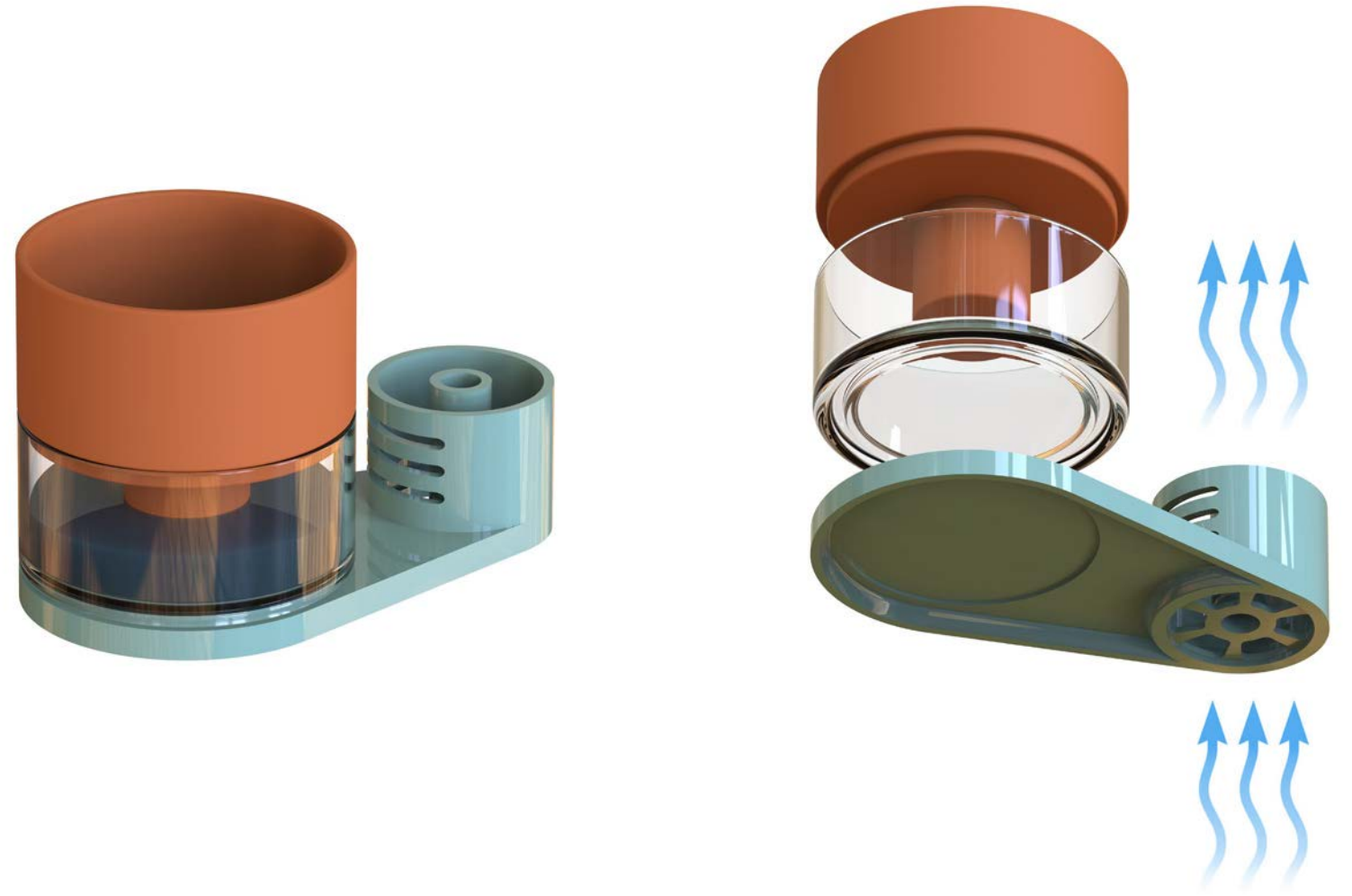
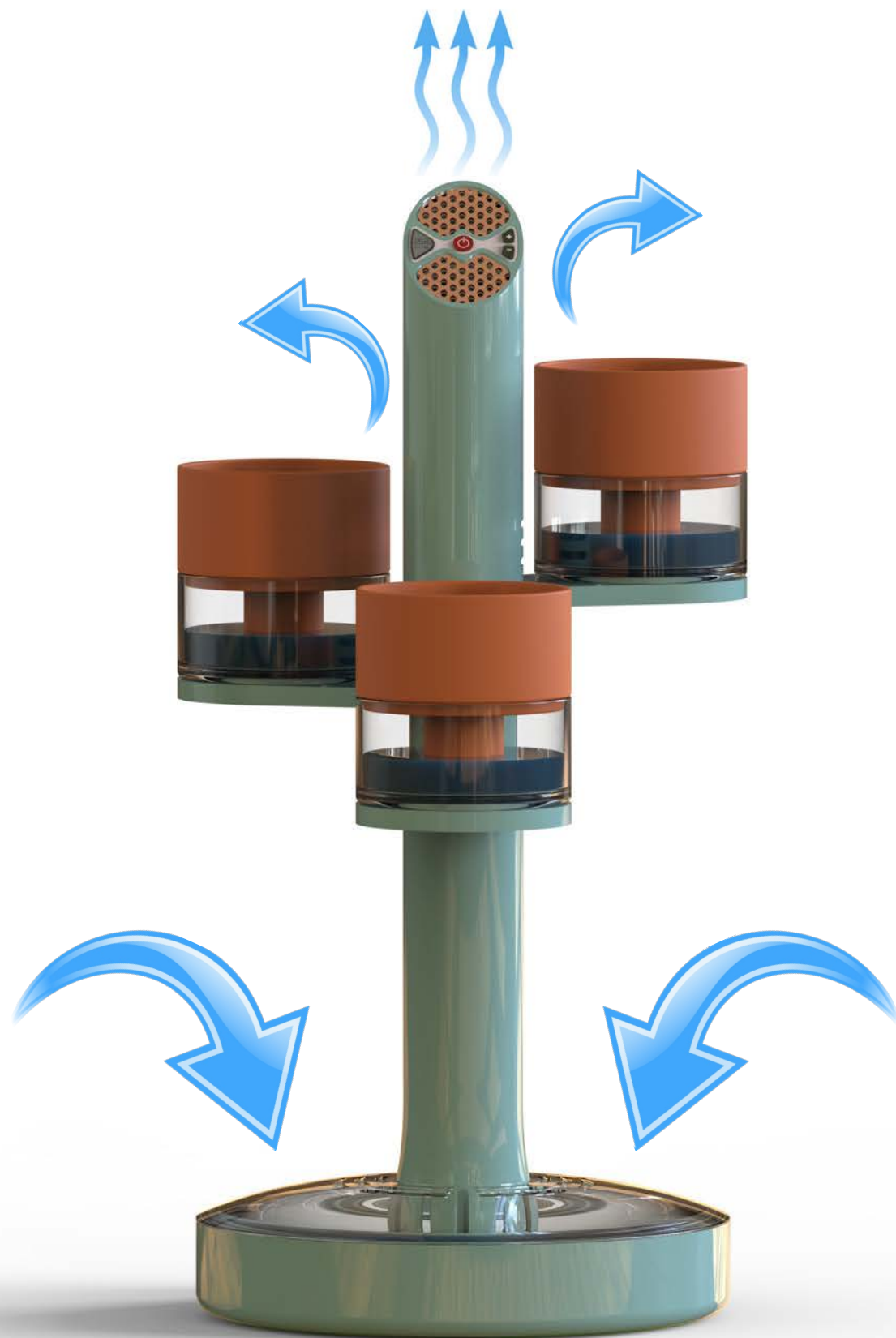
- Incorporate large **Terra Cotta pots** and **water reservoir**
- Easy to clean
- **Modular** and easily taken apart
- Tall and Slender Form





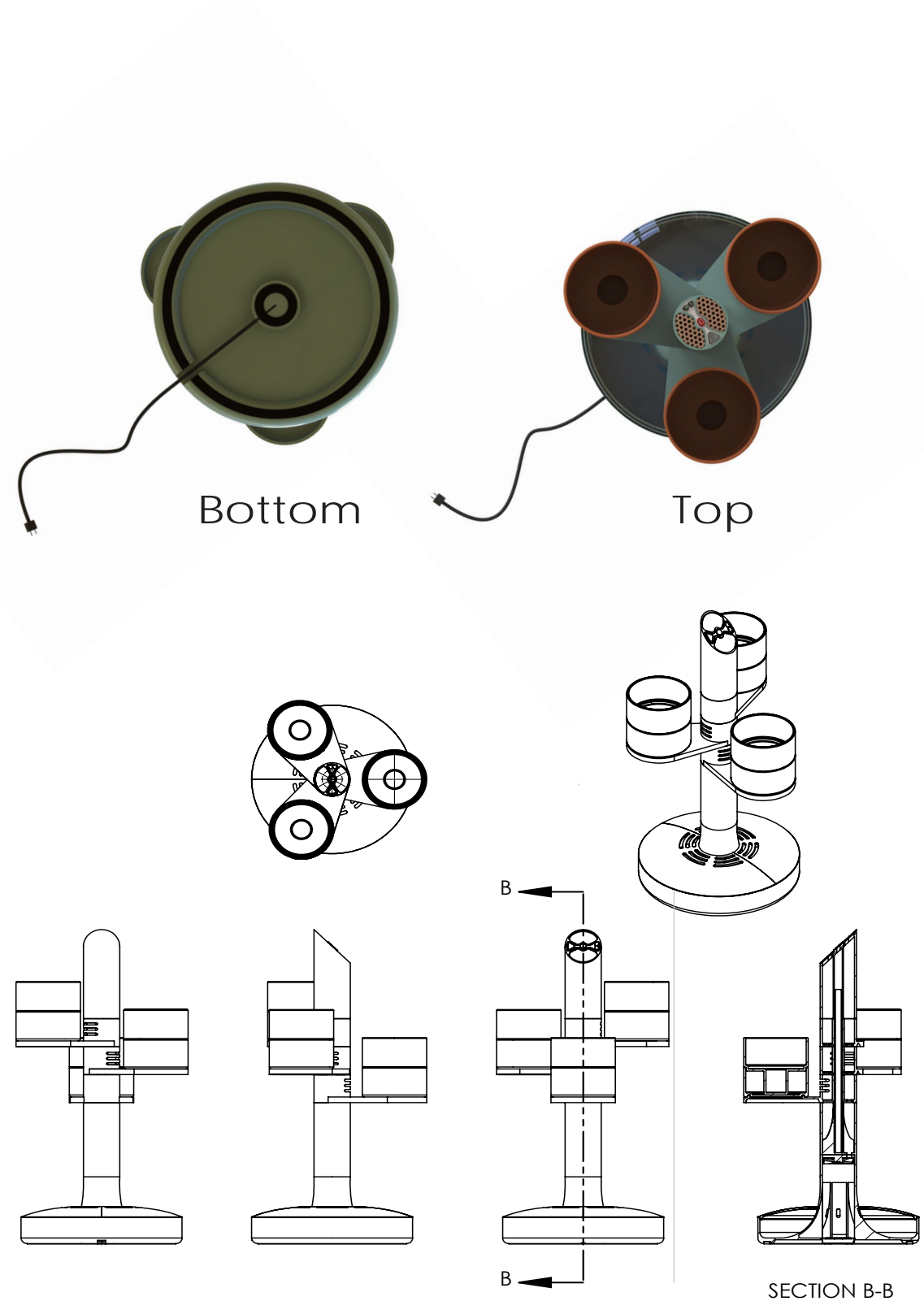






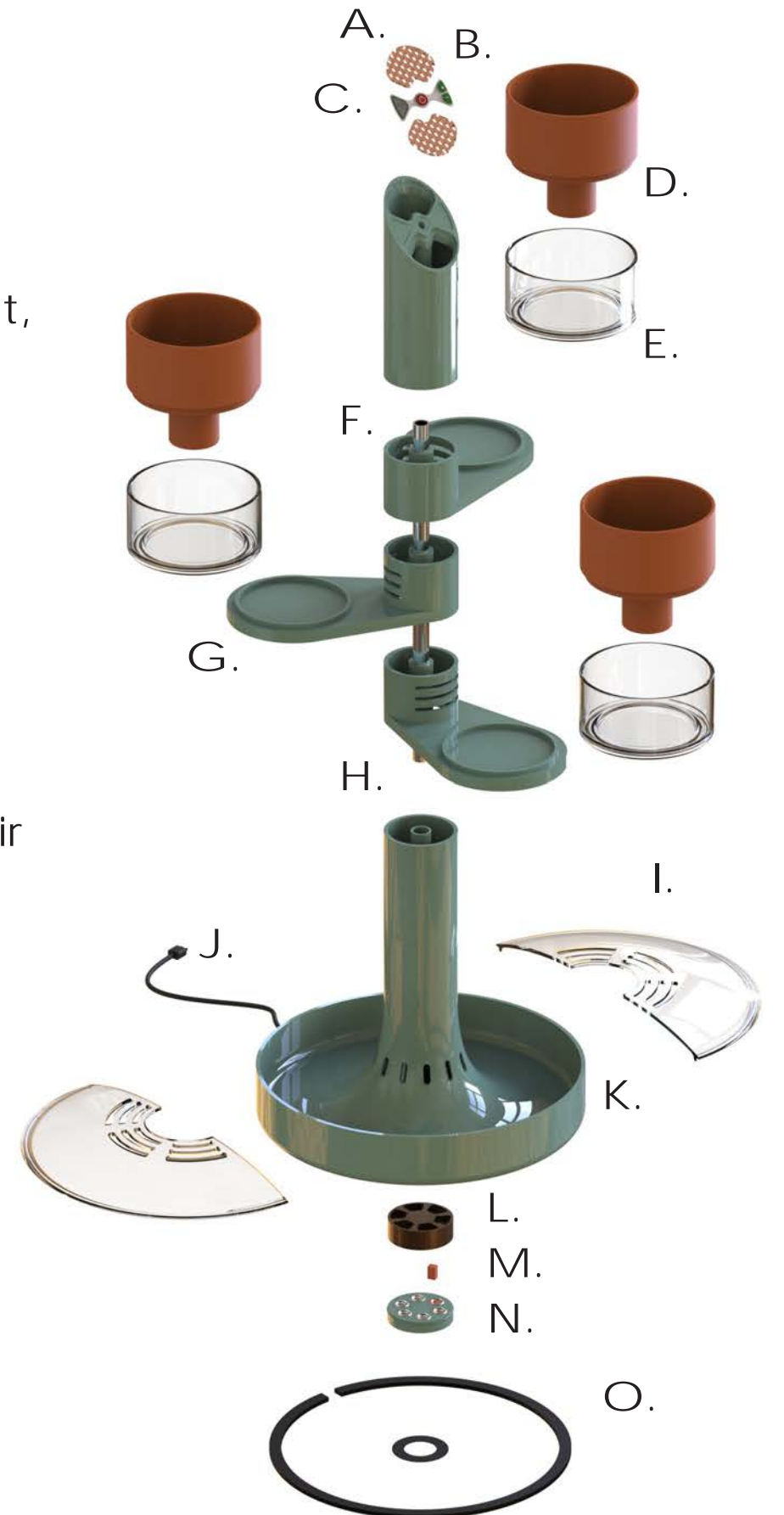
Spire takes water from its base reservoir and **converts it into a mist** through the use of 6 ultrasonic humidifying units.

Spire then uses a **built in fan and ventilation** cutouts to pull air through its base and push it up and out each module



## Parts List

- A. Upper Humidity Vents
- B. Humidity Control Buttons
- C. Small LCD Display for Current, Relative, and Set Humidity
- D. 8'' Diameter Terra Cotta
- E. Glass Water Reservoir
- F. Steel Rod Backbone
- G. Modular Shelf
- H. Steel Rod Insert Point
- I. 2 Piece Clear Acrylic Reservoir Cover
- J. Power Cord
- K. 20'' Diameter reservoir
- L. Humidity Fan
- M. Water Level Sensor
- N. 6 Ultrasonic Humidifiers
- O. Rubber Base





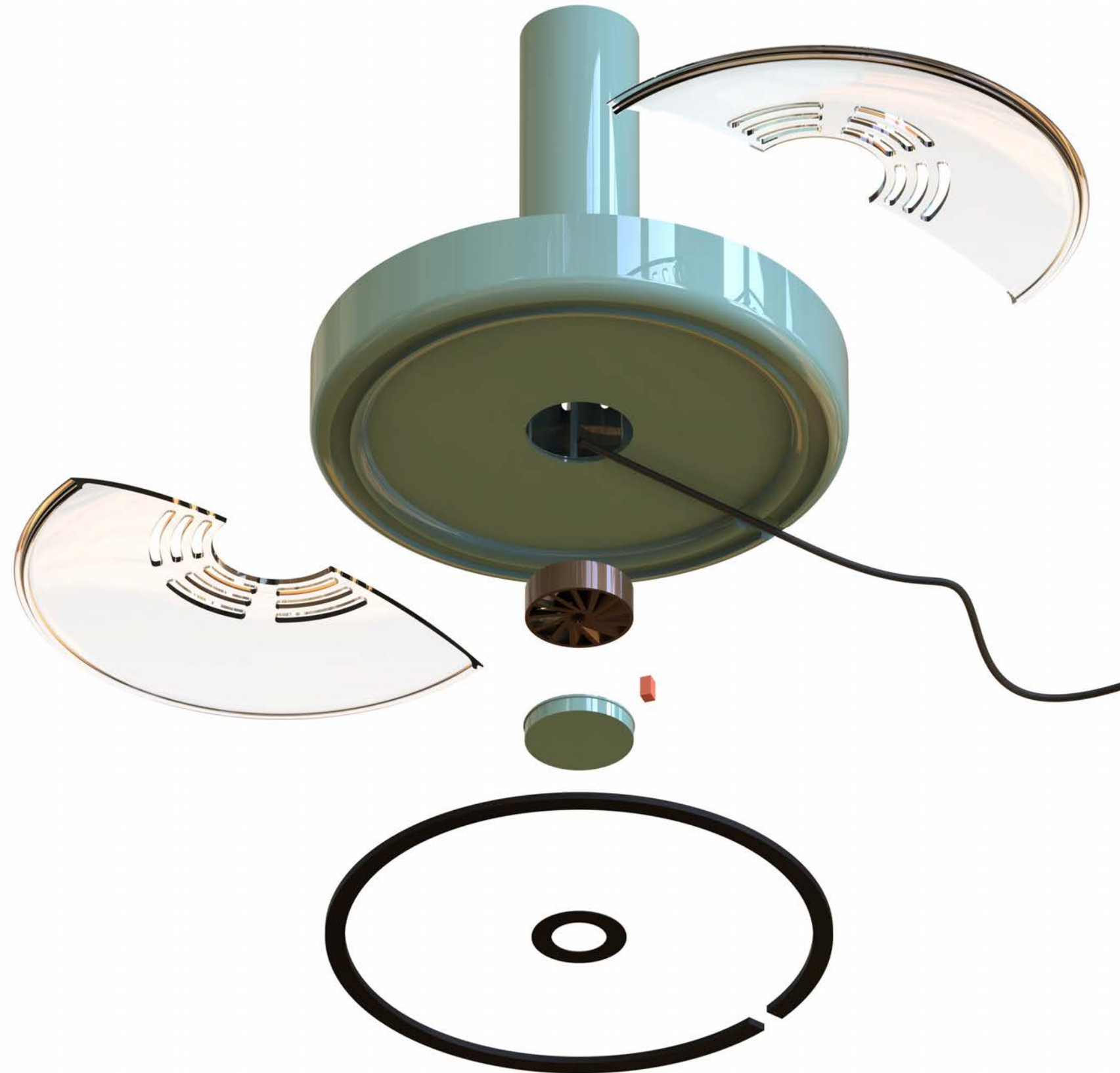


## Materials

- A. Recycled ABS plastic
- B. Terra Cotta
- C. Aluminum Backbone
- D. Clear Molded Acrylic
- E. Thermoplastic Elastomer Buttons
- F. Aluminum Mesh

## Manufacturing

- Injection Molded
- Slip cast Pots
- Metal Extrusions





# Spire

Plant Tower & Humidifier

Ideal Humidity for Any Space  
No More Underwatered Plants





As the number of refugees in the world continues to grow due to war, poverty, famine, disasters and climate change, **their quality of life may be overlooked** in the influx

As a group, **identify where refugees quality of life can be improved** then make a product that achieves all goals







# Design for Humanity

- Overcrowding
- Confined quarters
- Diseases /viruses spread rapidly
- No areas for self-isolation
- Poor hygiene facilities for the entire population
- Gender-based violence
- Lack of privacy
- Theft
- Lack of medical resources
- Unhealthy mental health effects

“The 59 camps are recognized by the UNRWA and host 1.5 million refugees in Jordan, Lebanon, Syria, the West Bank and the Gaza Strip. These camps contain the world's largest and oldest refugee population.” (2)

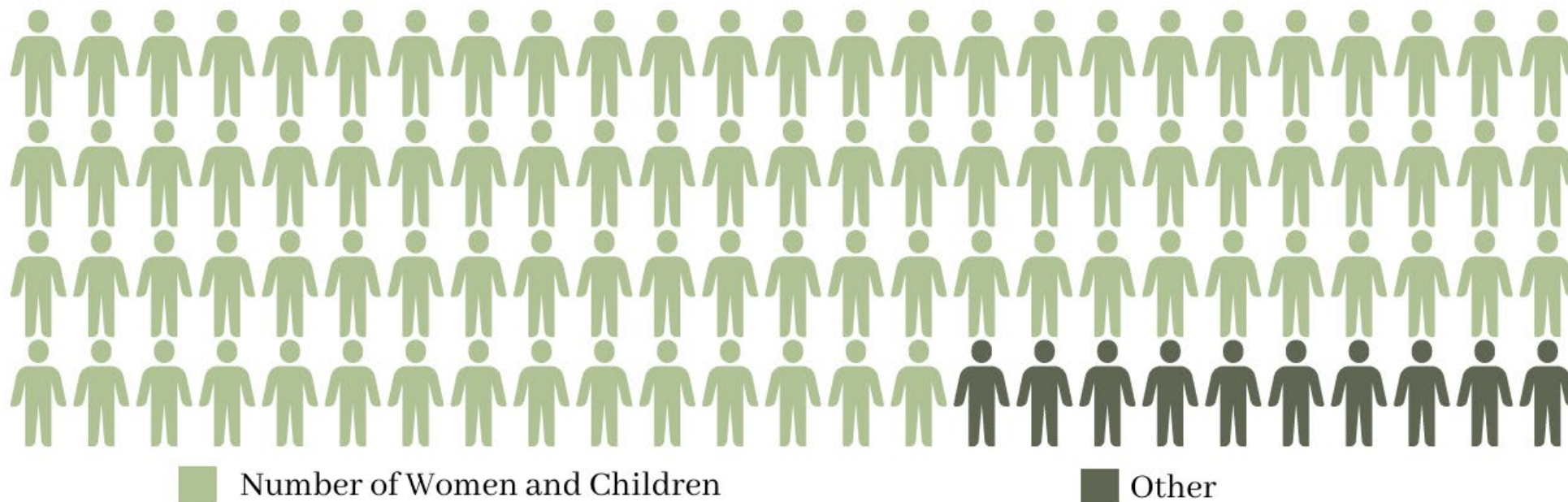


Relaxing  
 Security Cost-Effective  
 Independence Home Space  
 Accommodating  
 How might we incorporate these values and qualities into a  
 product meant to provide a sense of security to refugees going  
 through mass transit centers?  
 High-Caliber Quiet  
 Equity Calm Minimalist  
 Comfort  
 Safety Privacy

# Current Statistics

"...where more than 75% of women in camps have mental and physical health issues – which is linked to their living conditions" (6)

"According to the UNHCR, more than 5.5 million refugees - 90% of whom are women and children - have fled Ukraine since the Russian invasion" (5)





# Current Product

## Pros

- Does provide a professional form of privacy
- It contains pockets
- It can protect those on lower bunks
- Easy to set up and tear down
- Simple

## Cons

- It cannot protect the person on the top bunk
- The bottom of the product is not secured at all
- Only useable in the context of the bunk bed
- It is not adaptable for different sized and styled bunks

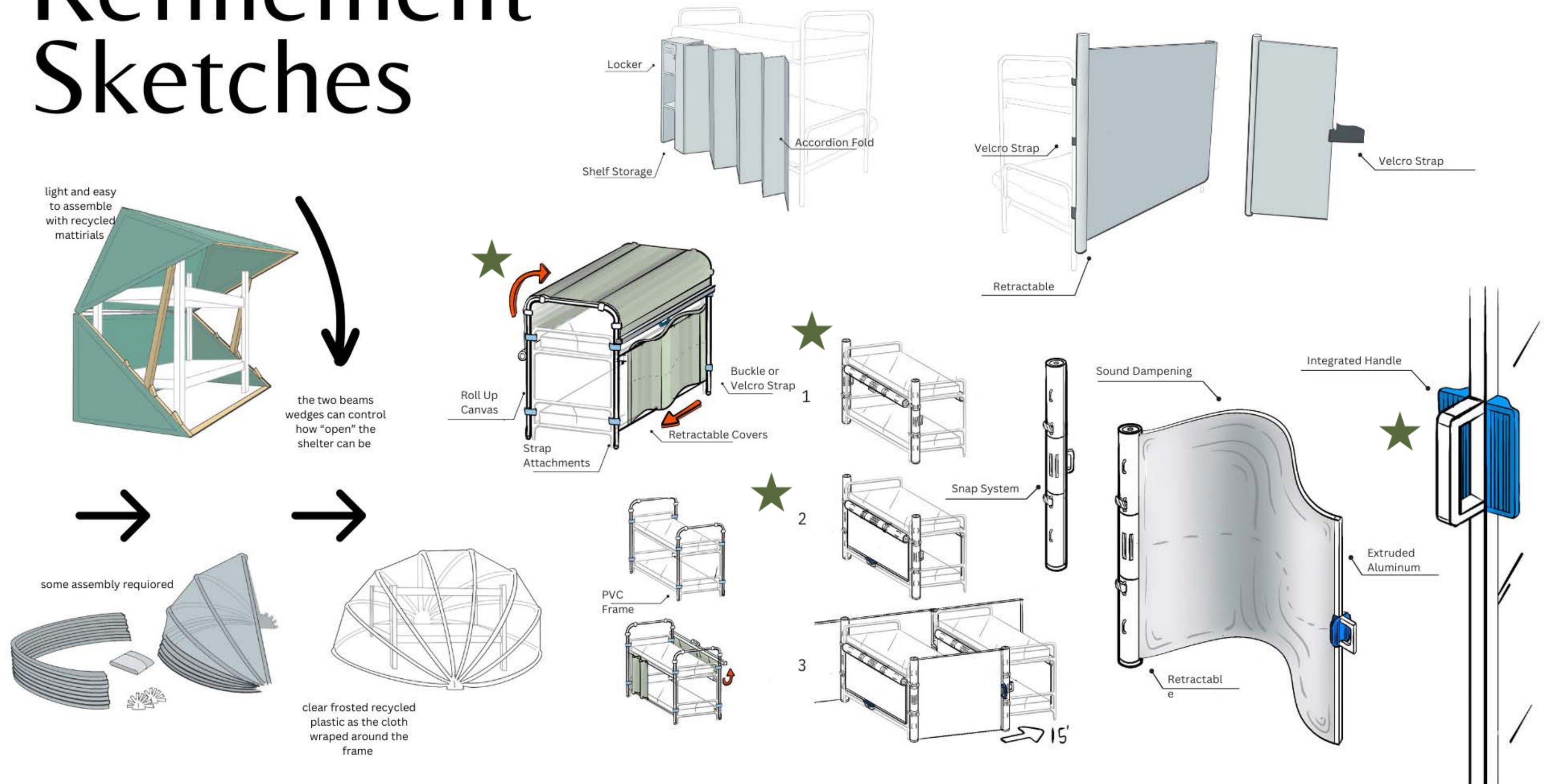


[illegible]

Green stars denote my work within the group

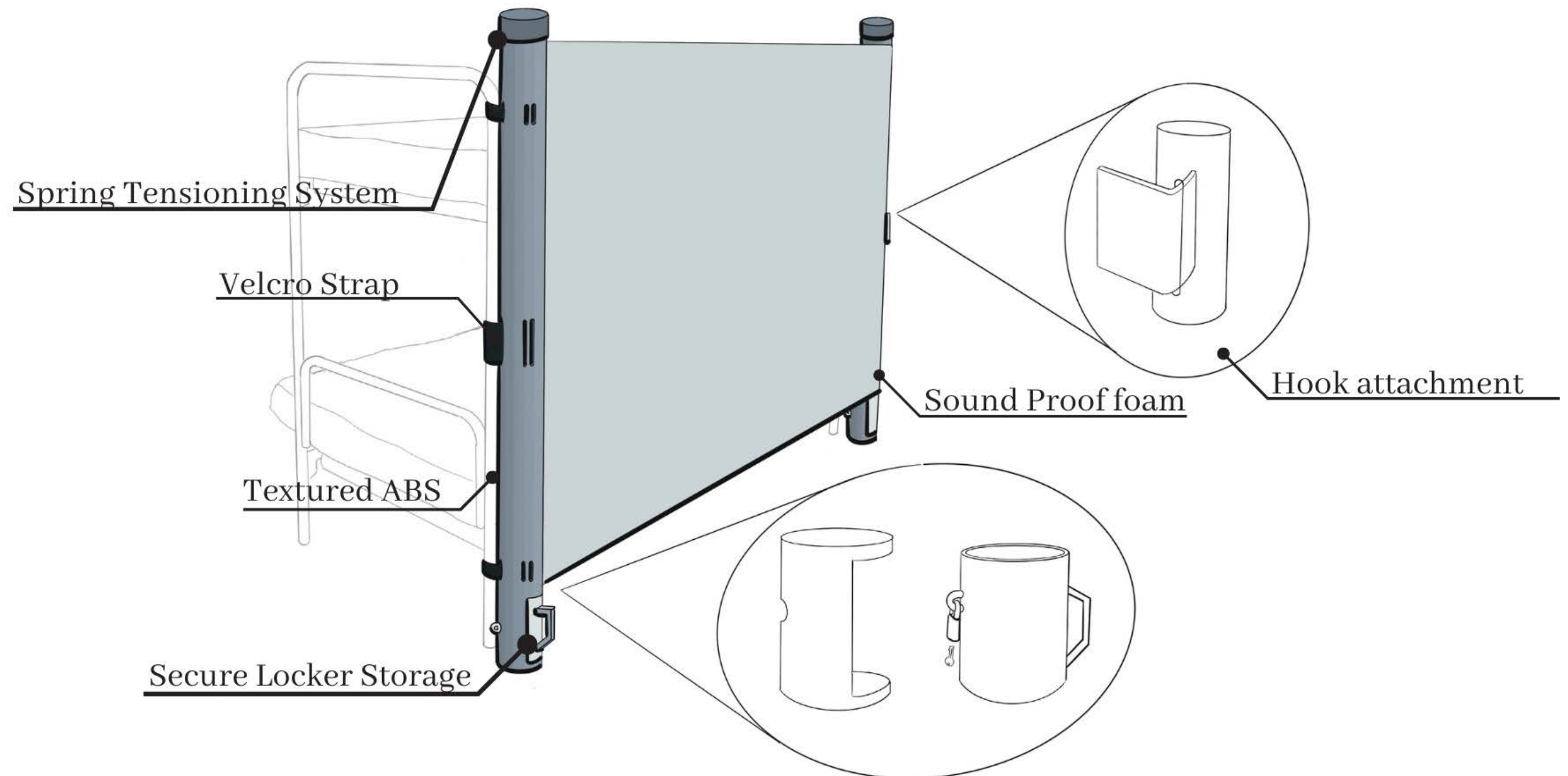


# Refinement Sketches



Green stars denote my work within the group

# Final Direction





# Final Product – Partitone



Retractable, Sound Dampening  
Canvas Screen

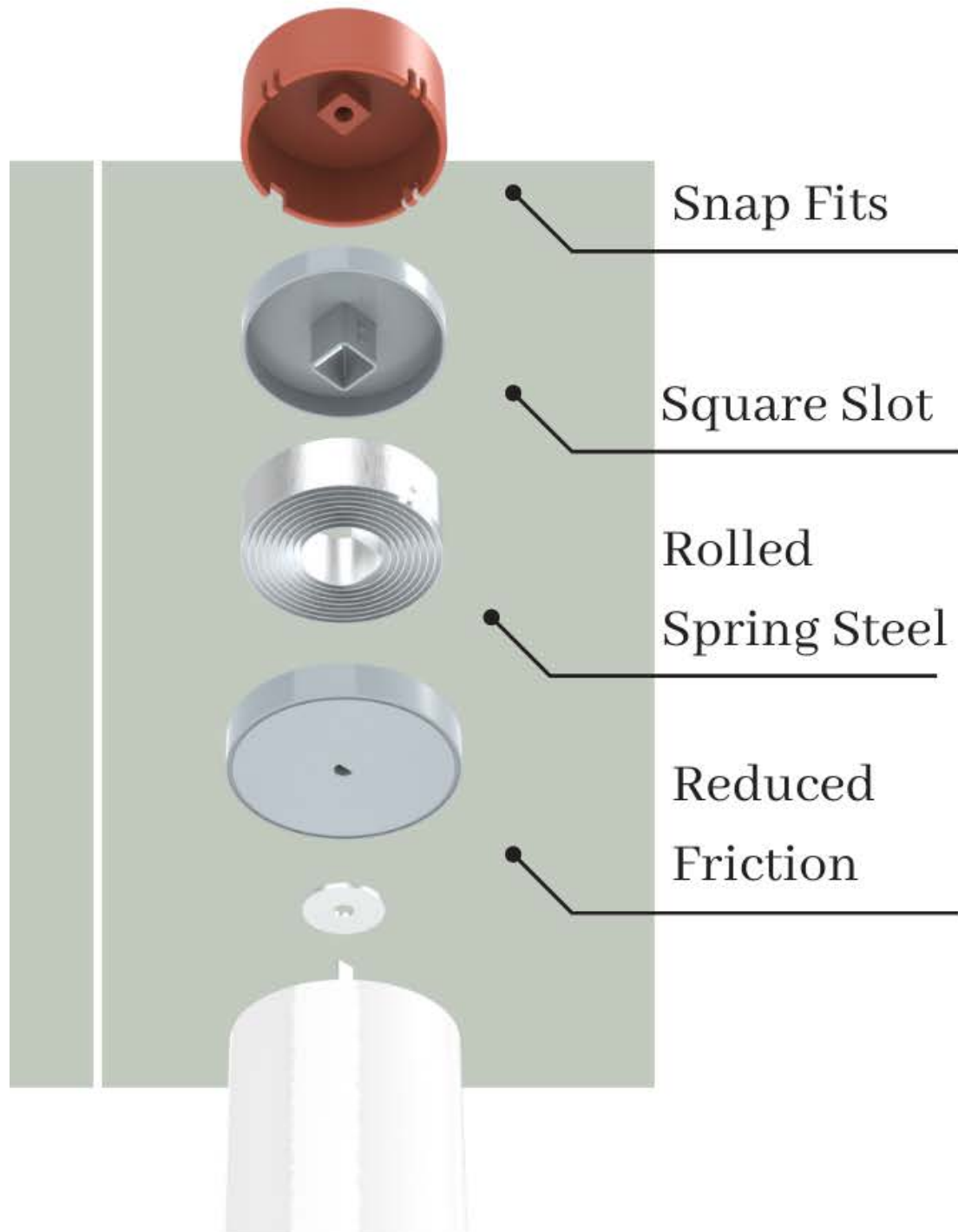


Easy Grip Handle

Velcro Attachement  
Points

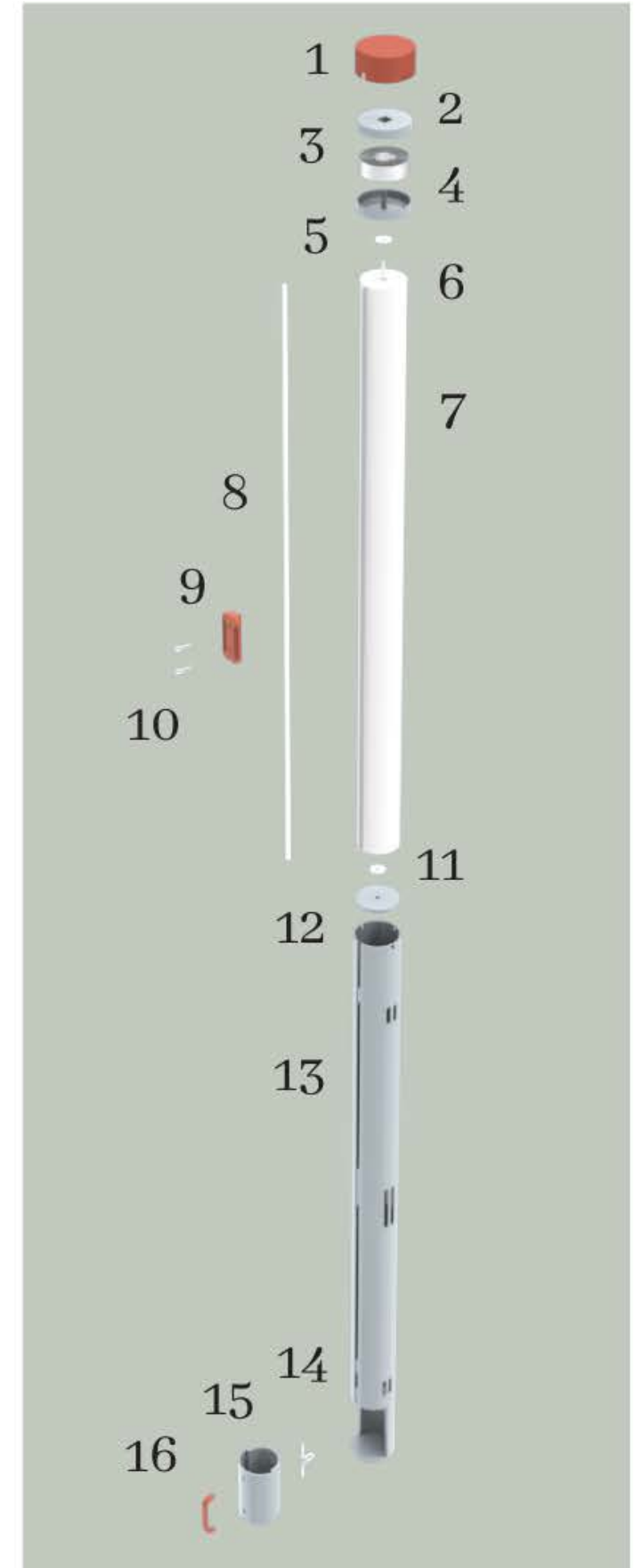
Lockable Storage Box

# Exploded View



## Parts List

- |                           |     |
|---------------------------|-----|
| Snap Fit Cap              | 1.  |
| Upper Spring Housing      | 2.  |
| High-Carbon Spring Steel  | 3.  |
| Lower Spring Housing      | 4.  |
| Low Friction Washer       | 5.  |
| Aluminum Backbone Rod     | 6.  |
| Peacemaker Canvas         | 7.  |
| Extruded Aluminum         | 8.  |
| Double Sided Handle       | 9.  |
| Two Stainless Steel Hooks | 10. |
| Low Friction Washer       | 11. |
| Lower Rod Support         | 12. |
| Main ABS Tube             | 13. |
| Stainless Lock Bar        | 14. |
| Secure storage            | 15. |
| Snap Fit ABS Handle       | 16. |





# Technical Aspects

## Manufacturing

Injection Molded ABS

Extruded Aluminum

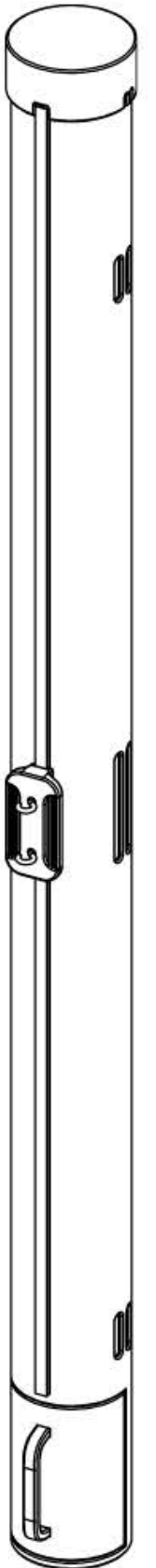
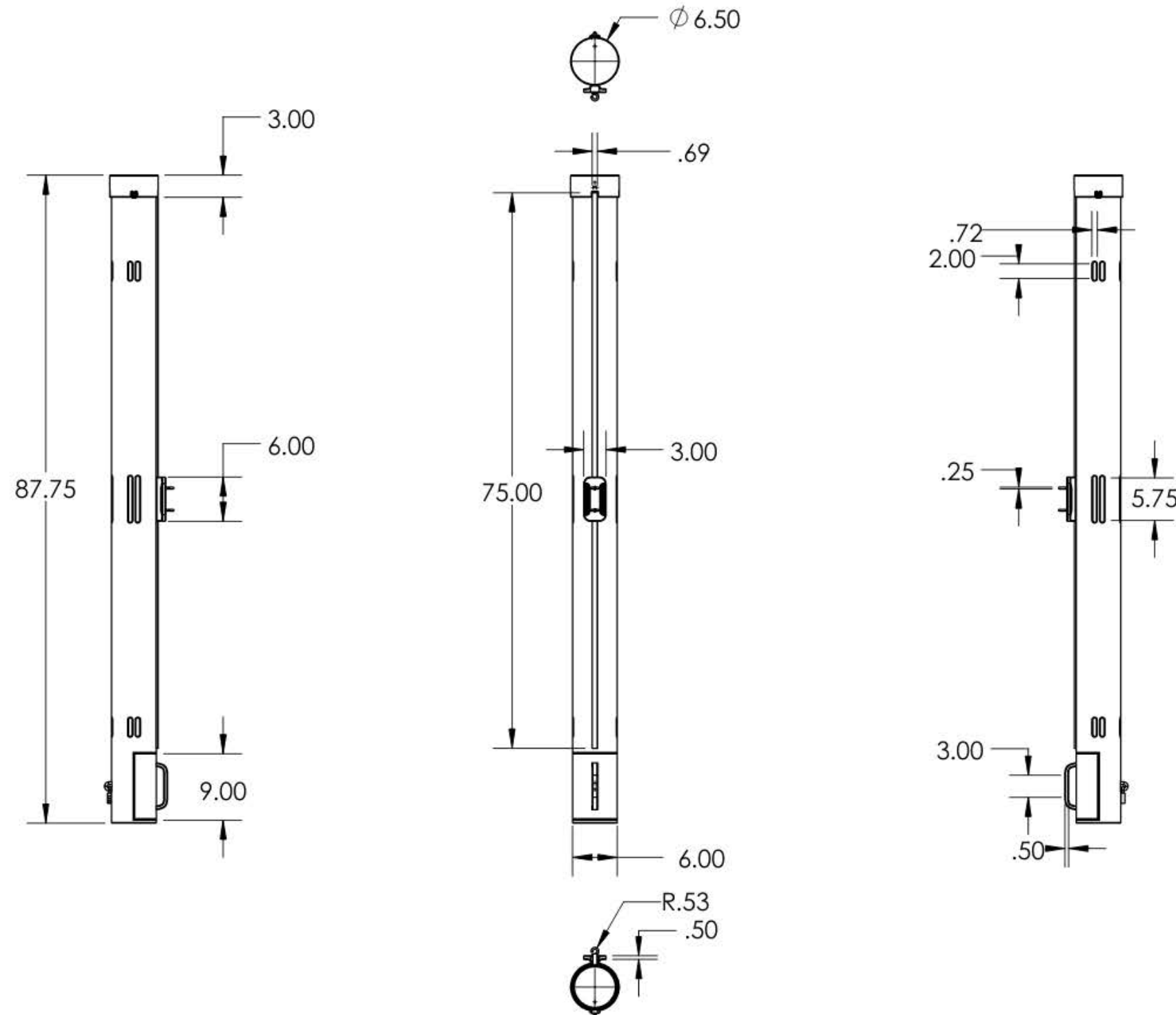
Stamped Steel Washers

Velcro Straps

Spring Steel

Peacemaker Canvas

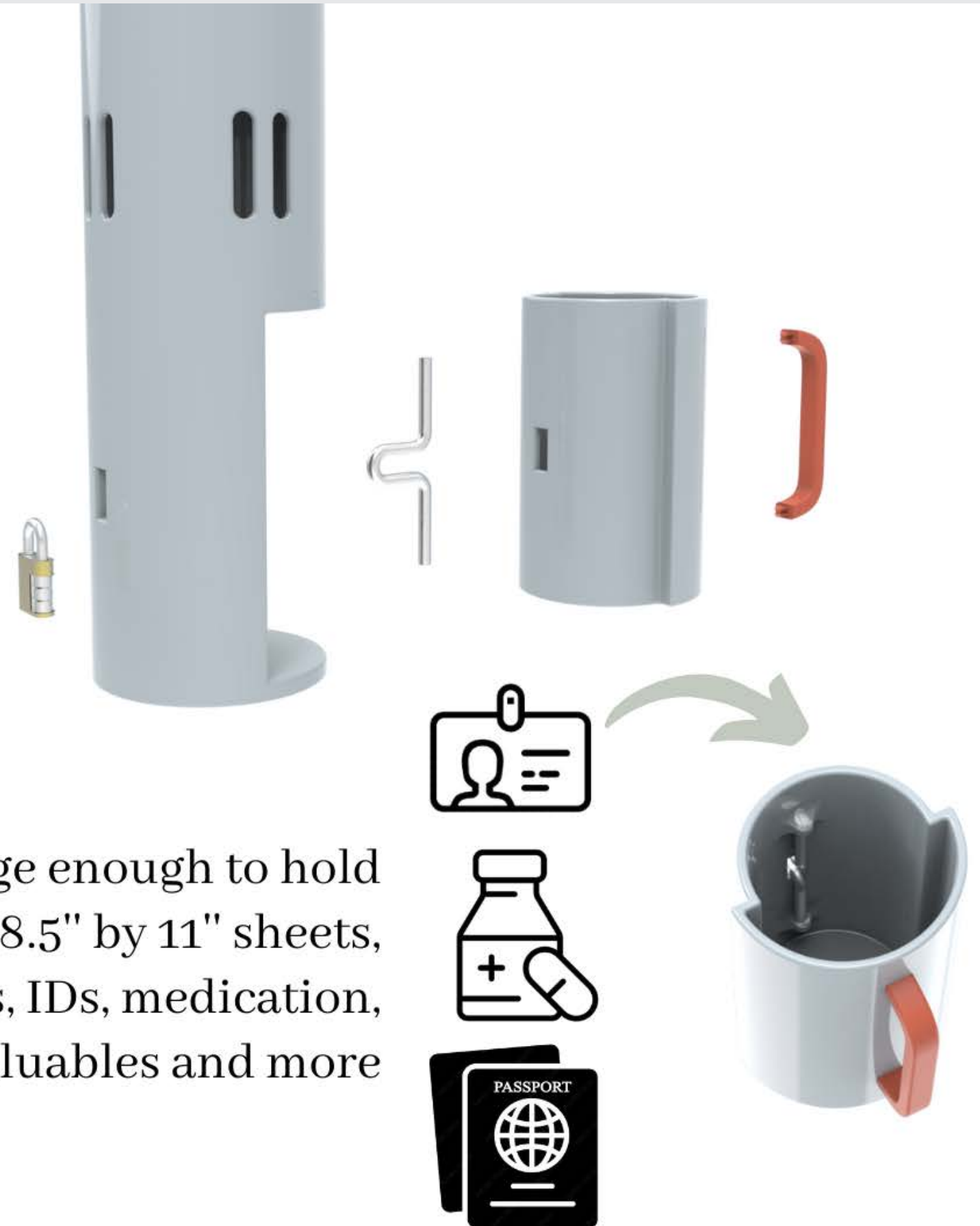
Integrated Snap Fits



# Secure Storage



Large enough to hold  
rolled up 8.5" by 11" sheets,  
passports, IDs, medication,  
valuables and more







# In Context

Adaptable  
Modular  
Welcoming  
Safe  
Private

## Partitone

# Hydro Flask Portable Blender



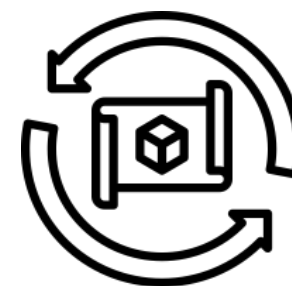




## Design Prompt

Visual Brand Language

Choose a product to **redesign** and a specific company with a distinct **visual brand language** to design it for.





# Brand Identity



Resilient Sensible Portable Exploration  
Durable Versatile Sustainable Go Anywhere  
Rugged Fitness  
Reliable Standardized Authentic Naturally-Inspired  
Honest Lightweight Stainless Steel  
Slender Friendly Effortless Healthy Responsible  
Rounded





# Materials And Color Palette

18/8 pro-grade SS (bottle)

- Durable and **easy to clean**

Solid silicon (gasket and boot)

- **Air/water tight** connection, protects bottom of bottle



Polypropylene plastic resin, #5 Plastic (Lid)

- Lightweight, and has high **heat/cold resistance**



Thermoplastic Elastomer (handle)

- **Rubber like qualities**



**Saturated colors** with select neutrals

Emphasis on **customization and mismatched colors**





# Visual Brand Language



## Over Molded Stainless Steel Pivots

- Easy carrying with flex strap
- Complements steel banding
- Embodies freedom and movement

Emphasis on **simplicity**

Prioritizes **durability and empowerment** to encourage outdoor exploration



Stainless Steel Banding

Soft Geometric Curves

Tall and Slender Forms

Saturated Powder Coat

Rounded Profiles







# Blender Breakdown



## Owaylon 16 oz Personal Blender

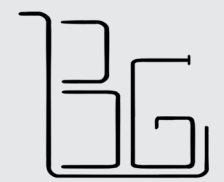
- 304 **stainless steel** blades
- 150W rated motor with max 20,000 RPM.
- Magnetic safety lock



### Exploded Parts List:

1. Main ABS body
2. Lower ABS base
3. Rubber footing
4. Four Philips head screws
5. Touch pad and PCP casing
6. Silicone touch pad (power and charge)
7. Silicone gasket for magnetic charger
8. Magnetic charger connection
9. Magnetic charger
10. Stainless steel blade assembly
11. DC 150w motor
12. PCP and LED charge lights
13. Two 1500 mAh batteries
14. Lower silicone gasket
15. Upper silicone gasket

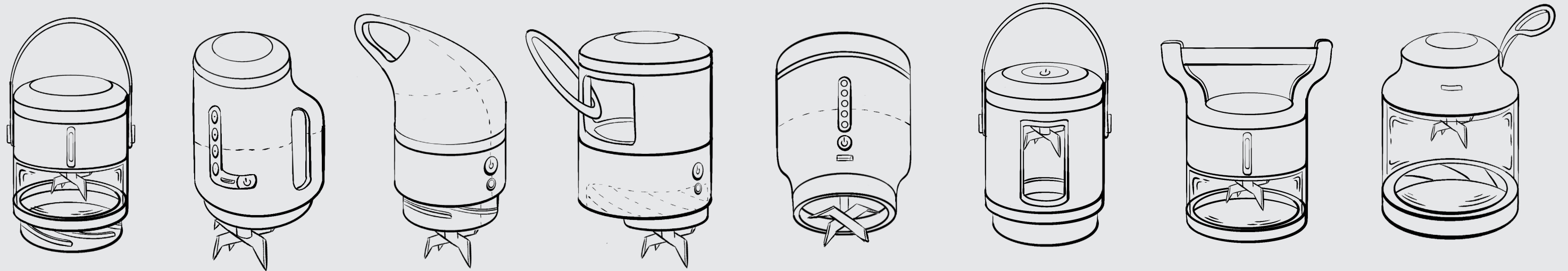




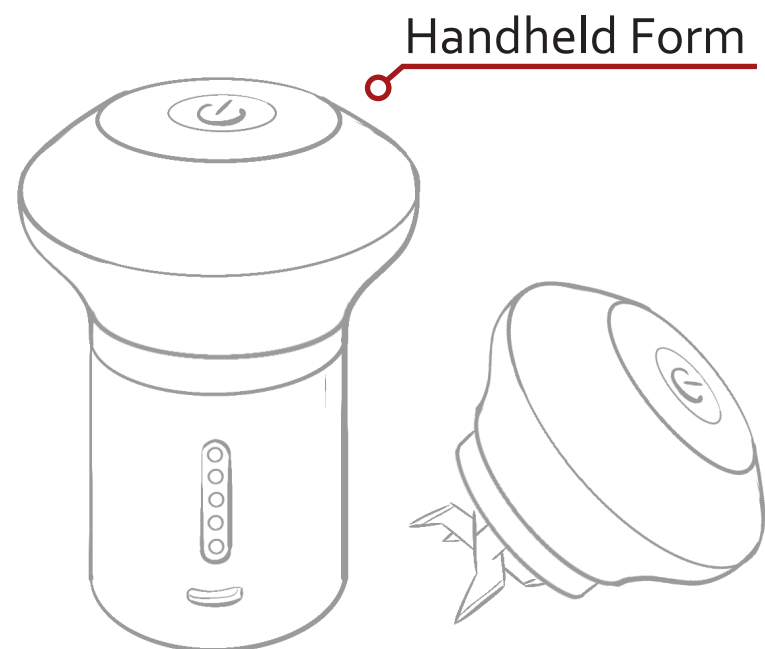




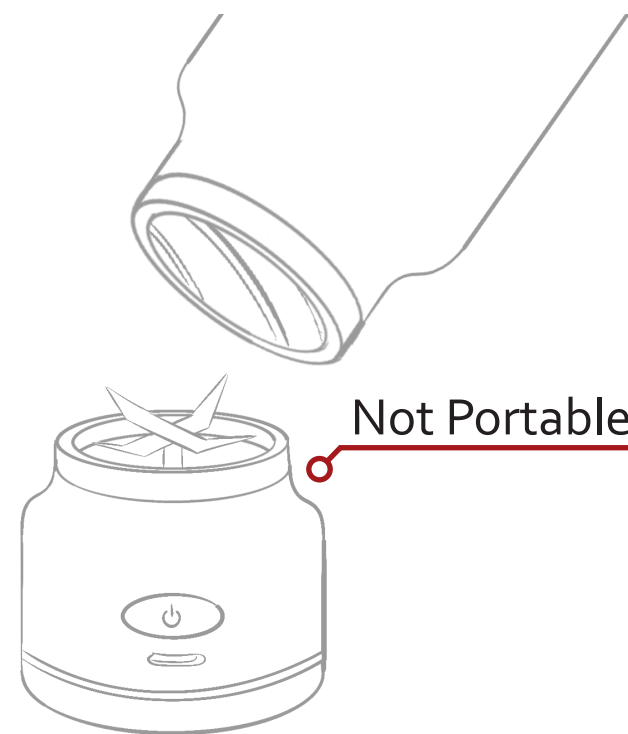
# Initial Sketches



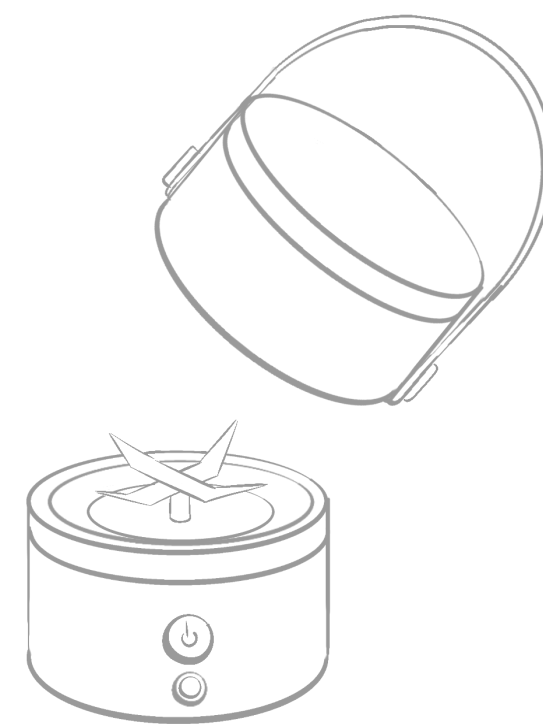
4 Directions for



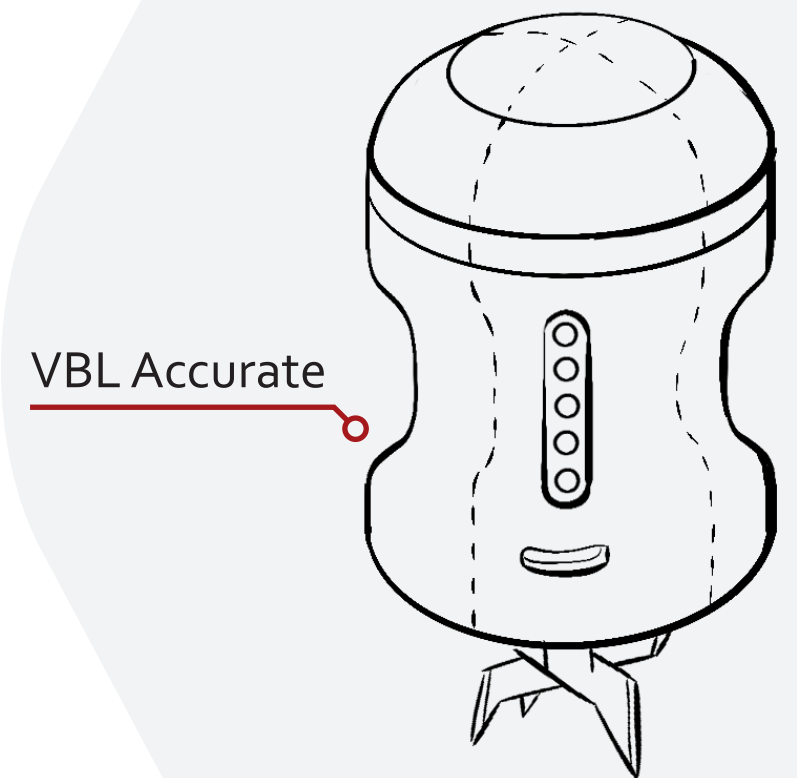
1 Separate Base



2 Blending Base



3 Concealable Blades

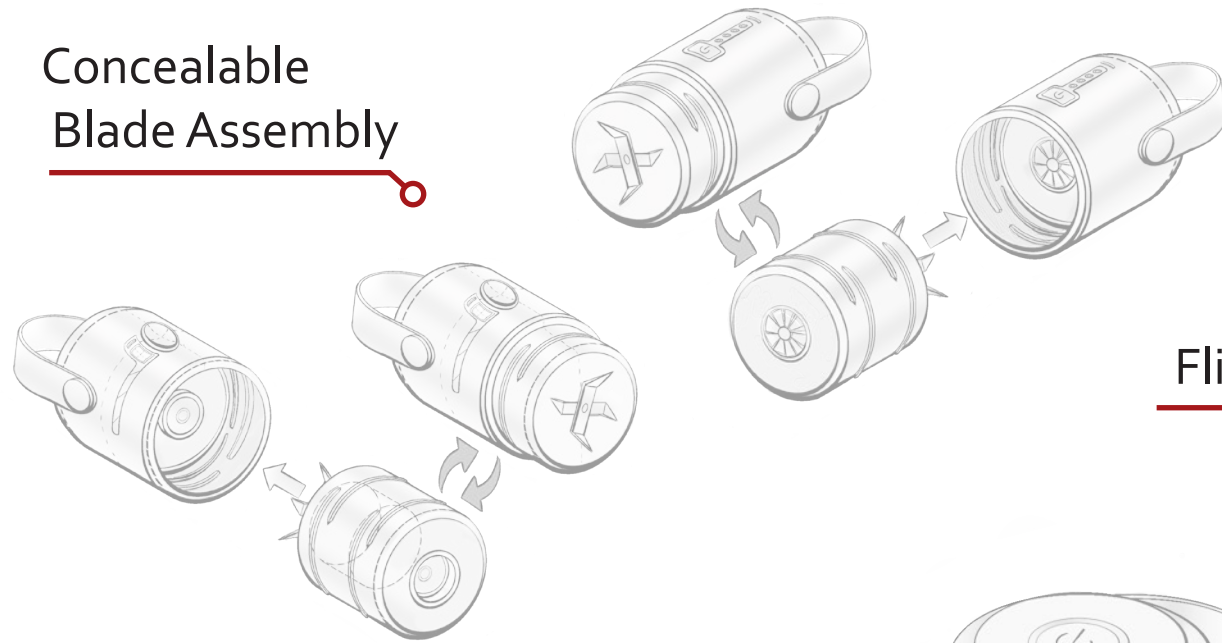


4 Ergonomic Grip



# Sketch Refinement

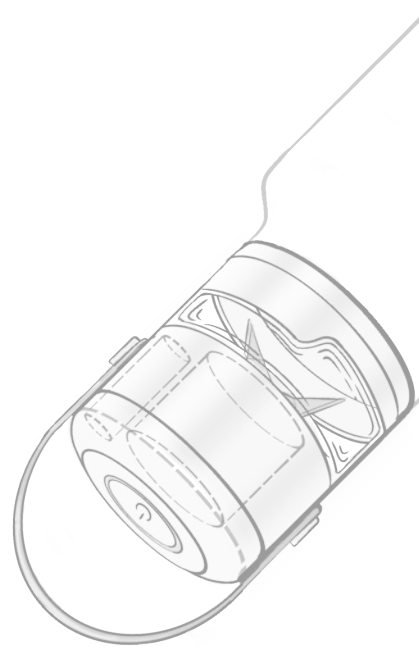
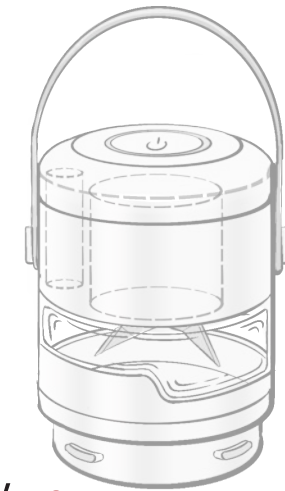
Concealable  
Blade Assembly



Flippable Use



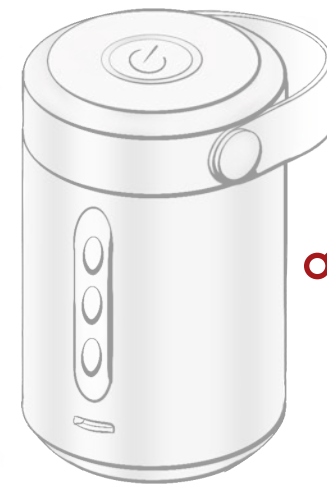
Glass  
Window



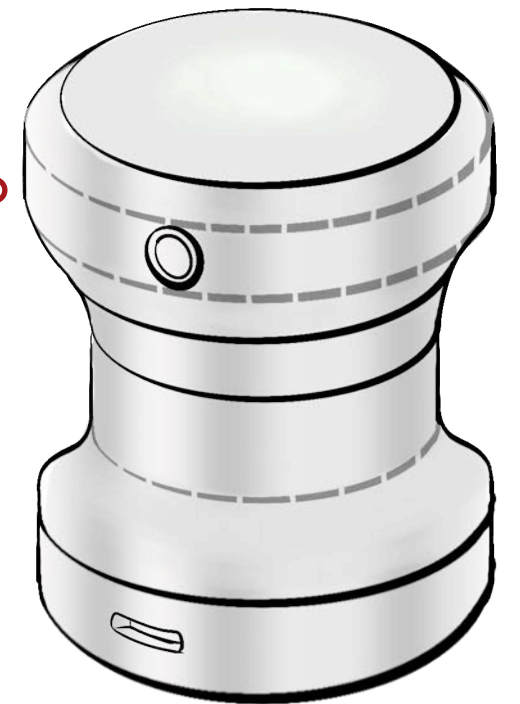
Low Profile Cap



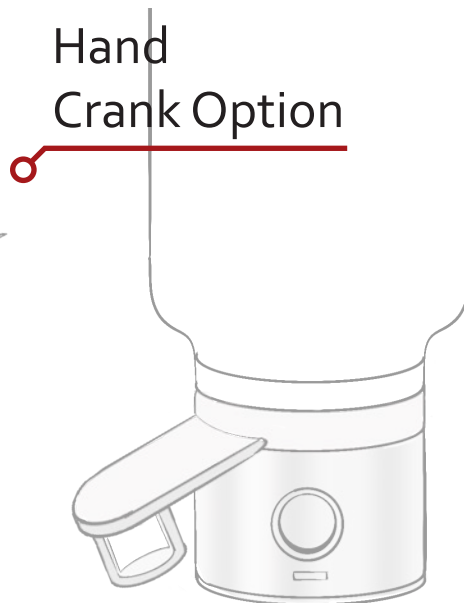
Larger Upper  
Banding



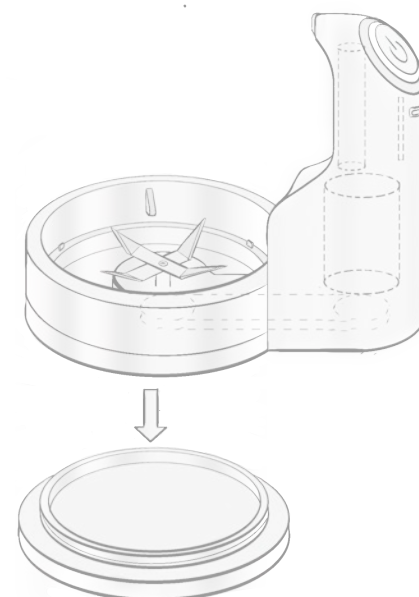
Ergonomic  
Hand Grip



Hand  
Crank Option



Integrated  
Handle



Although this design was chosen, the split in half feature was not pursued due to **internal space and performance needs**





# Sketch Models

Power Button  
Ideation



Integrated  
Handle



Screw on Cap



Smaller Batteries  
And Motor

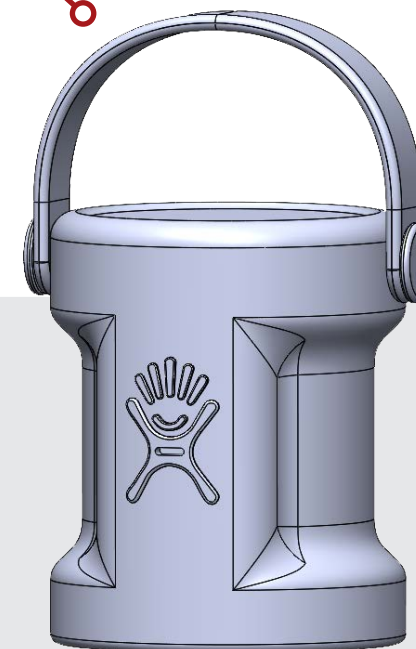


Models confirm accurate dimensions and a **comfortable hand feel** as well as making **adequate room for internals**

Flex Strap



Final Foam Model



Initial 3D Model



Final  
Scale Model





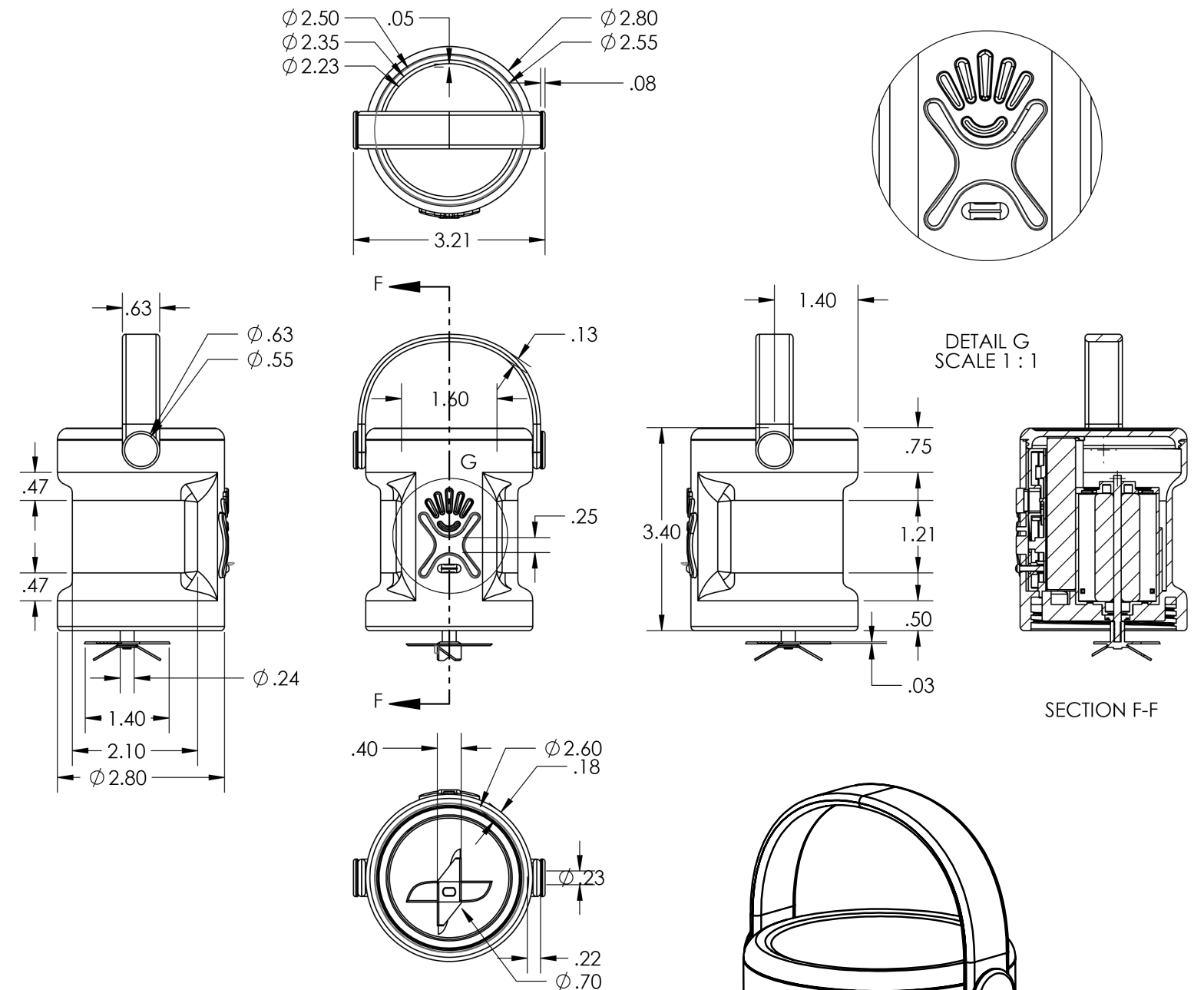
Compact.  
Rugged.  
Customizable.

Removable straps and silicone button panel let you make any hydro flask *yours*.

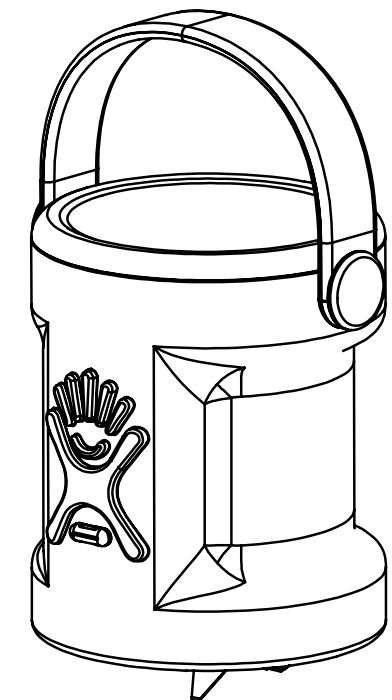




1. Flex Strap Thermoplastic elastomer (TPE)
2. Stainless Steel Pivots
3. Motor Cap and Leads
4. Internal Copper Coils
5. Hardened Steel Motor Shell
6. Steel Motor Rod
7. Silicone Motor Gasket
8. Stainless Steel Blade Assembly
9. Plastic #5 Threaded Cap
10. Upper Silicone Gasket
11. Printed Circuit Board (PCB)
12. Slide In Interface Assembly
13. Silicone Button Pad
14. Silicone Charger Gasket
15. Silicone Charger Seal
16. 3, 1000 mAH Lithium Ion Battery
17. Main Shell - Polypropylene plastic resin, #5 Plastic
18. Lower Silicone Gasket
19. Silicone Blade Cover



- 150W rated motor with max 20,000 RPM
- 3000 mAH battery capacity





**Watertight gaskets** around the screw thread, charging port, and axle mean your blender will be ready for anything you throw at it

Effective Space Use



Space for Wires

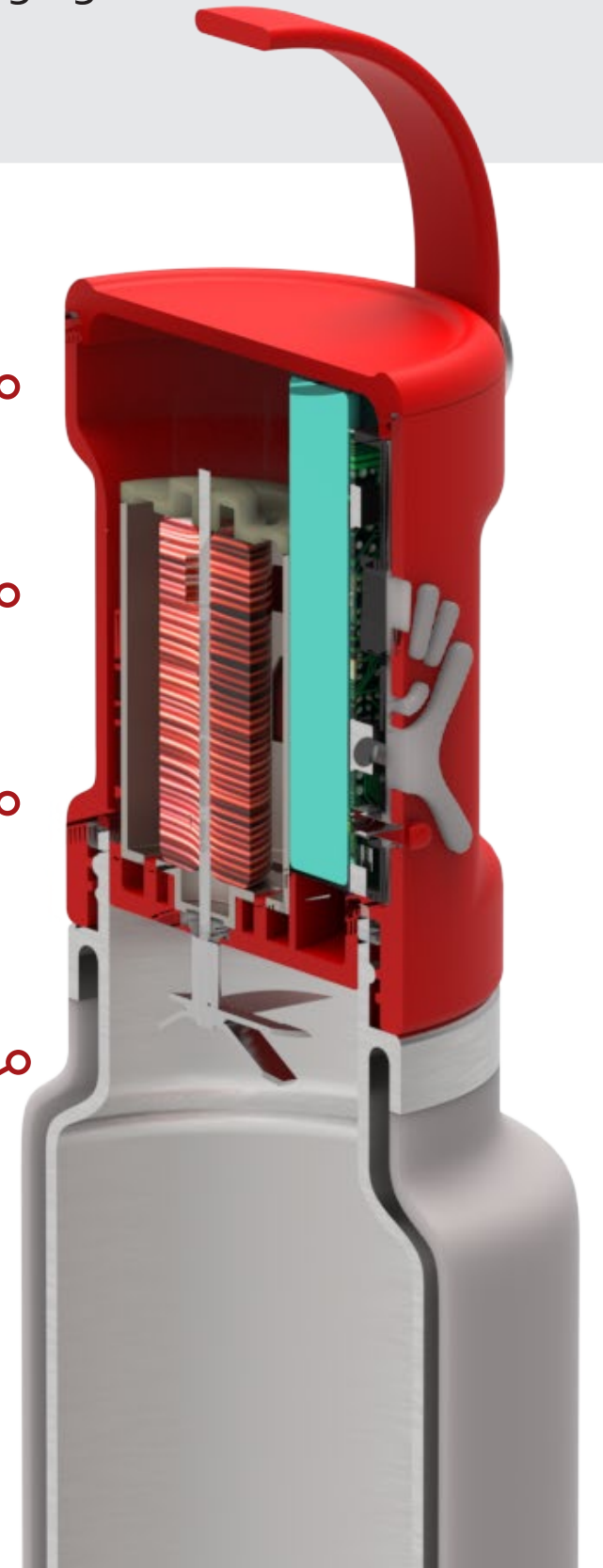
Comfortable Grip Diameter

Pressure Safety Lock

Off-center Blade for Greater Whirlpool Effect

Overmolded Stainless Steel Pivots

Draft Angles for Injection Molding





# MyHydro™

make it yours.



Customize with  
the newest colors







Blend well, wherever.  
Backyards to campsites,  
nutrition for everywhere.

**Lets Go!™**

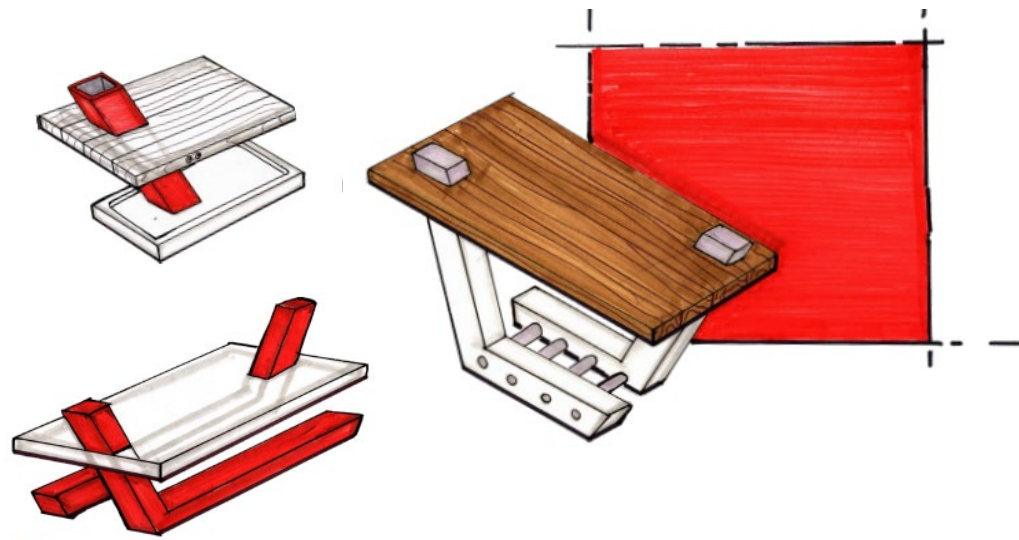




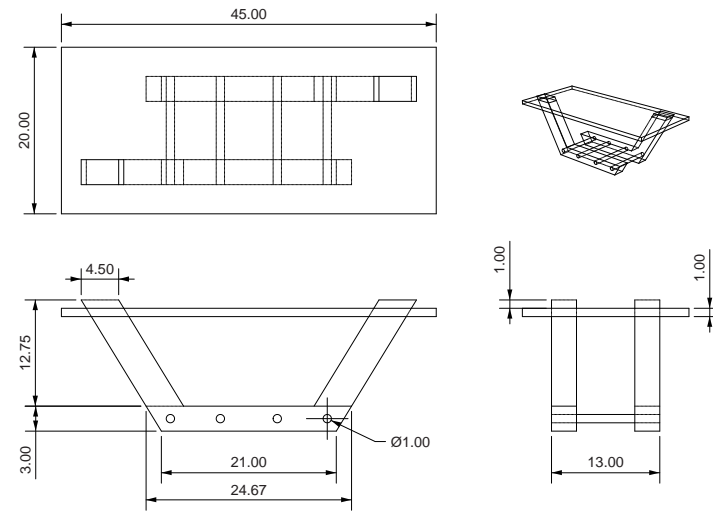


# Alder Wood Table

58



Initial Concepts



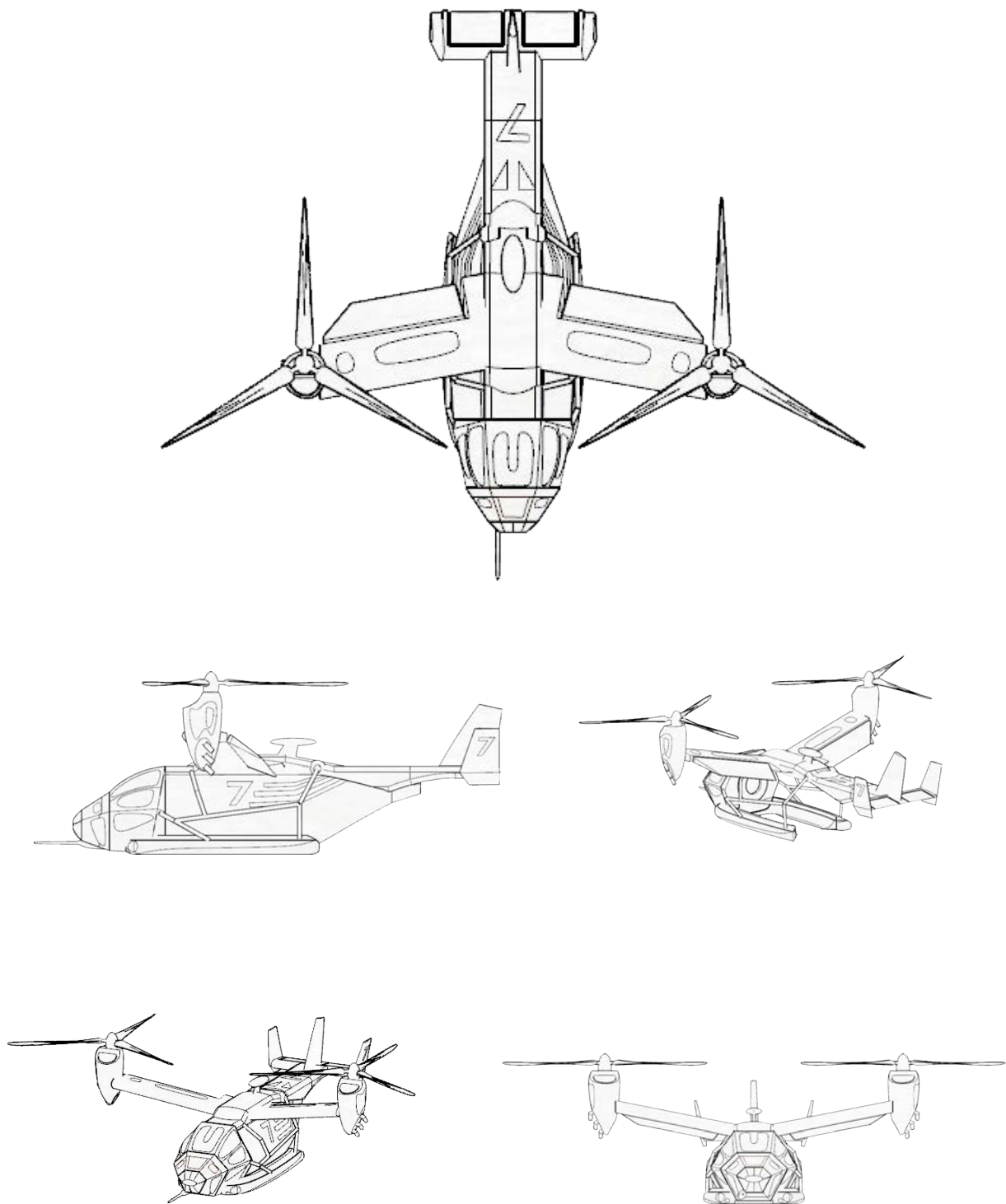
Orthographic



Scale Reference



Orthographic



In Context



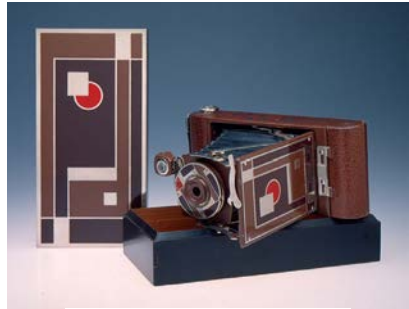
This project was included in my portfolio as it was one of my first CADD projects and one I'm **looking forward to re-imagining in the near future**. With increasing threats of drought and wildfires, this craft can fill a crucial sector around the globe.



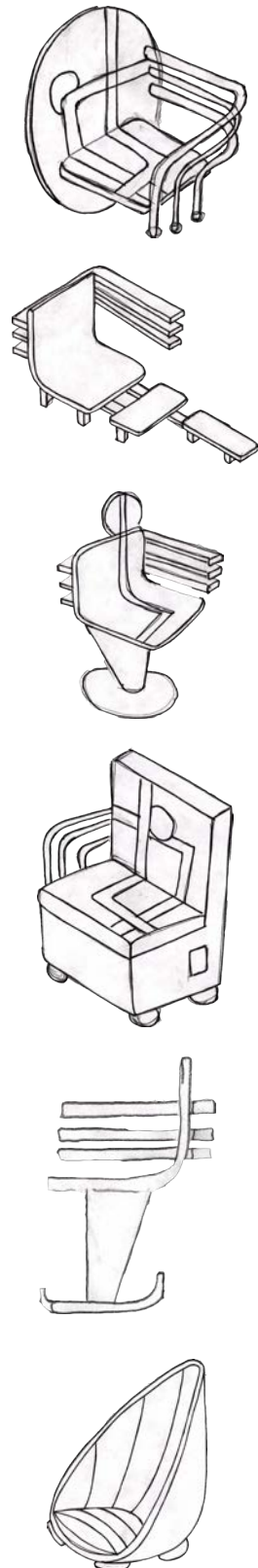


# Walter Dorwin Teague 1/8 Scale Chair

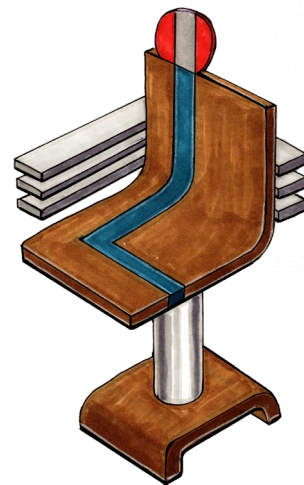
60



Inspiration



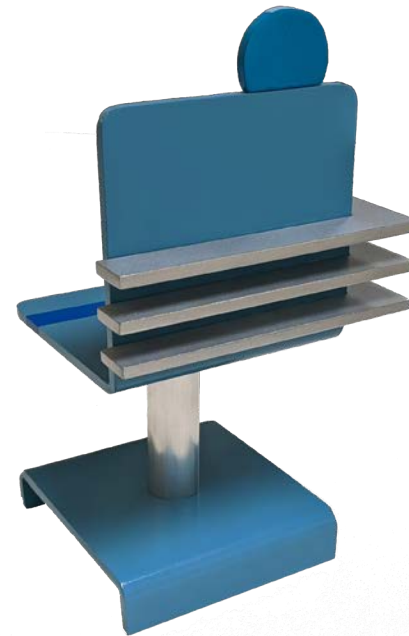
Sketches



Final Direction



In Progress



Final Model



*Thanks!*

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Location: Boone, NC 28607

