

Portfolio 2025

JORDAN DINWIDDIE

Industrial Designer & Human

About Me



Hi! I'm **Jordan**, an industrial & product designer with a diverse background. I have been a woodworker, a banker, and now a designer. I studied at the University of Wisconsin - Stout and earned a BFA in Industrial Design.

I have worked in the design **industry for over 5 years**, between industrial design and furniture making. This industry experience, along with my formal design education, lends me a unique ability to simultaneously consider both aesthetics and feasibility.

EDUCATION

INDUSTRIAL DESIGN BFA Spring 2024
University of Wisconsin - Stout | 3.7 GPA

EXPERIENCE

- CSI CREATIVE** May 2024 - Present
Industrial Designer
- Design and develop architectural acoustic solutions through exploring user needs, market research, manufacturability, and graphic strategy.
- WOODSPORT FURNITURE** Intern Summer 2021 | Sept 2016 - May 2018
Intern & previously Production Assistant
- Woodworking based high-end furniture. Worked one on one with designer
- OUTDOORS FOR ALL FOUNDATION** Summers 2022 & 2023
Lead Camp Counselor
- Led inclusive outdoor recreation programs for youth and adults with disabilities, and ensuring fun and safety for every camper.
- MODEL MAKING TUTOR & LAB ATTENDANT** January 2021 - May 2024
On Campus Employment
- Assist Art & Design students with model making skills and techniques

AWARDS

- Noah Norton Portfolio Prize** May 2023
- Awarded by the University of Wisconsin Stout School of Art and Design
- IDSA Student Merit Award Nominee** April 2024
- Video presentation available upon request
- Room&Board Design Contest - 2nd Prize** February 2024
- Final Design under NDA until February of 2025

CONTACT

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LinkedIn	jordan-dinwiddie
Instagram	@jordandinwiddie.design

SKILLS

Creative	Ideation Sketching Research Collaboration Problem Solving Graphic Design Problem Solving
Top Softwares	Solidworks Rhino CAD Blender Adobe Suite Enscape Keyshot
Modeling	Woodworking Metalworking Foam modeling Rapid model iteration 4 years shop experience Basic electronics
Certifications	Solidworks Associate

What's coming up...



01 envelop
Workstation for
the hybrid era



02 icon Lamp
Bedside lamp &
wireless charger



03 Bodem
Composting made
modern.



04 Furniture
Various furniture
design projects



envelop.

Designed for designers

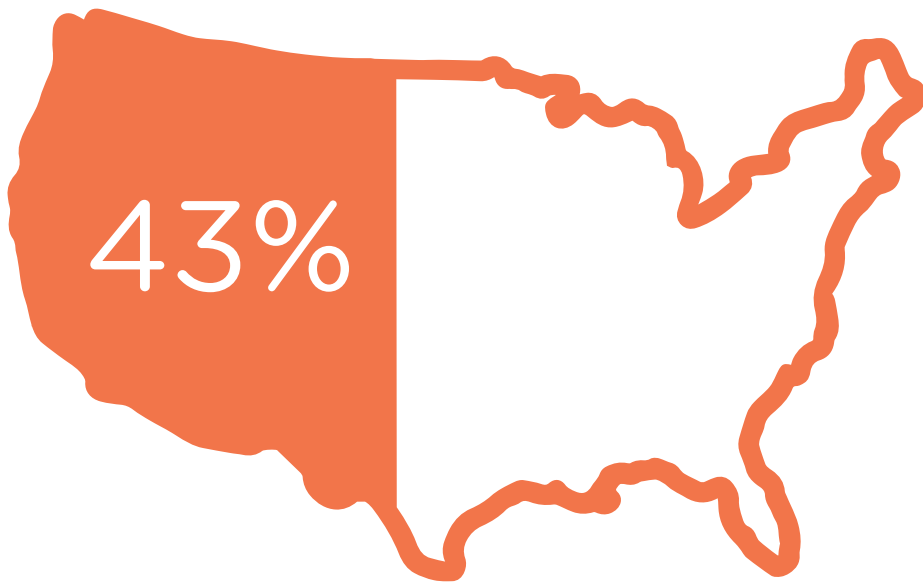
A workstation for graphic designers who work hybrid schedules. All design decisions backed by research (abridged edition)

Project Type	Senior Capstone
Duration	12 weeks
Date	May 2024

Understanding The Hybrid Impact

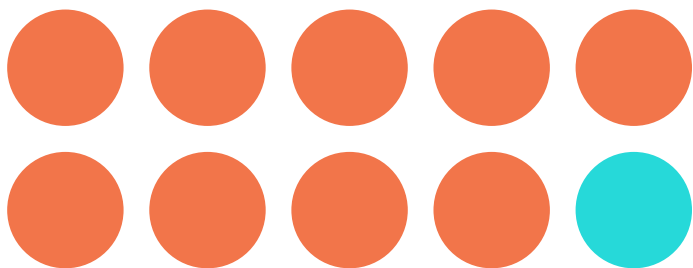


64 million total
US office workers

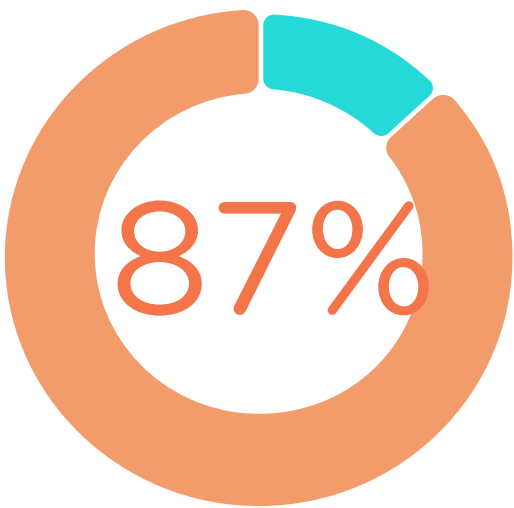


43% of US workforce
DPE 2024

Organization



90% of eligible organizations
are facilitating **hybrid work**
McKensey 2021

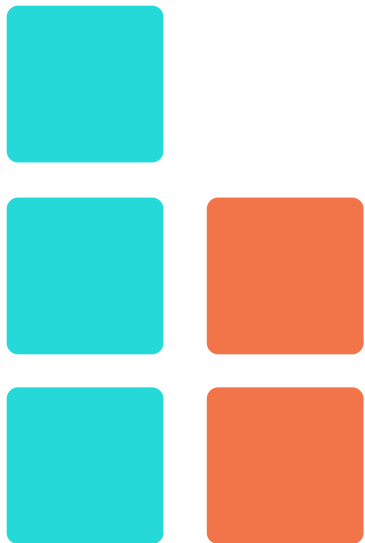


As a result, 87% of organizations
modifying or downsizing offices
Baker 2021



US government encouraging
real estate reduction to **reduce**
carbon footprint
Lindbery 2018

Workers



Organizations want workers in-office
three times per week. Workers want
only two. Key **one day discrepancy**
Baker 2021

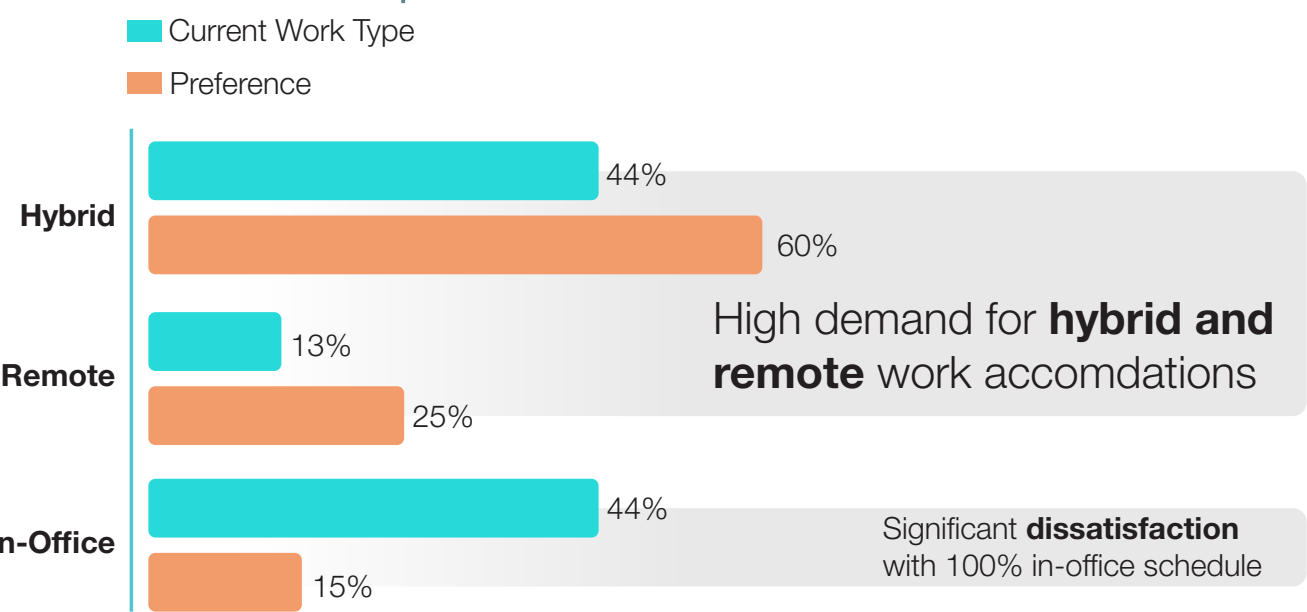


50% of workers would **consider**
resignation if not given scheduling
flexibility
Baker 2021



On average, it **costs \$4,700**
to hire a new employee
Business News Daily

The Human Impact



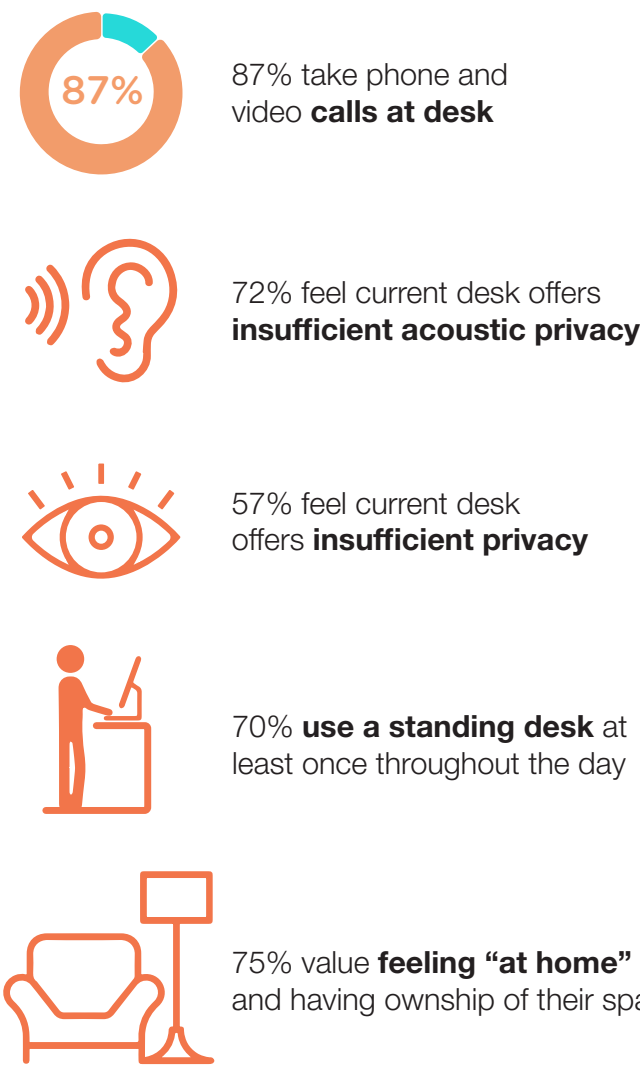
Interview Insights

"It sucks working at an **blank desk** every day. I don't feel my personality"
- Cara

"It can be **inconvenient to reset** the desk in the morning after someone used it the day before"
- Scott

"*phone booth* options can feel **claustrophobic and stuffy**, but a good light and fan helps"
- Luke

"I prefer more **enclosed desks**. Using a fully open one seems to welcome interruption."
- Aidan



Data from survey of 53 professionals

"What do you bring to the office?"

Universal



Common



Interviewees

- Scott — 37, Power Company
- Michael — 34, Travel Industry
- Luke — 33, Sales
- Aidan — 29, Engineering
- Cara — 31, Interior Design
- Courtney — 29, Science and Technology
- Jenny — 34, Graphic Design
- Alex — 30, Big Tech
- Christin — 37, Health Care

- What hybrid employees bring to work everyday is **nearly universal**. Everyone interviewed brings just the essentials in a backpack which sits on the floor.
- Common pain points: Struggles with lighting for video calls. No where to put snacks. **Can't keep anything at desk**, so few personal effects.

Analysis of a popular workstation type

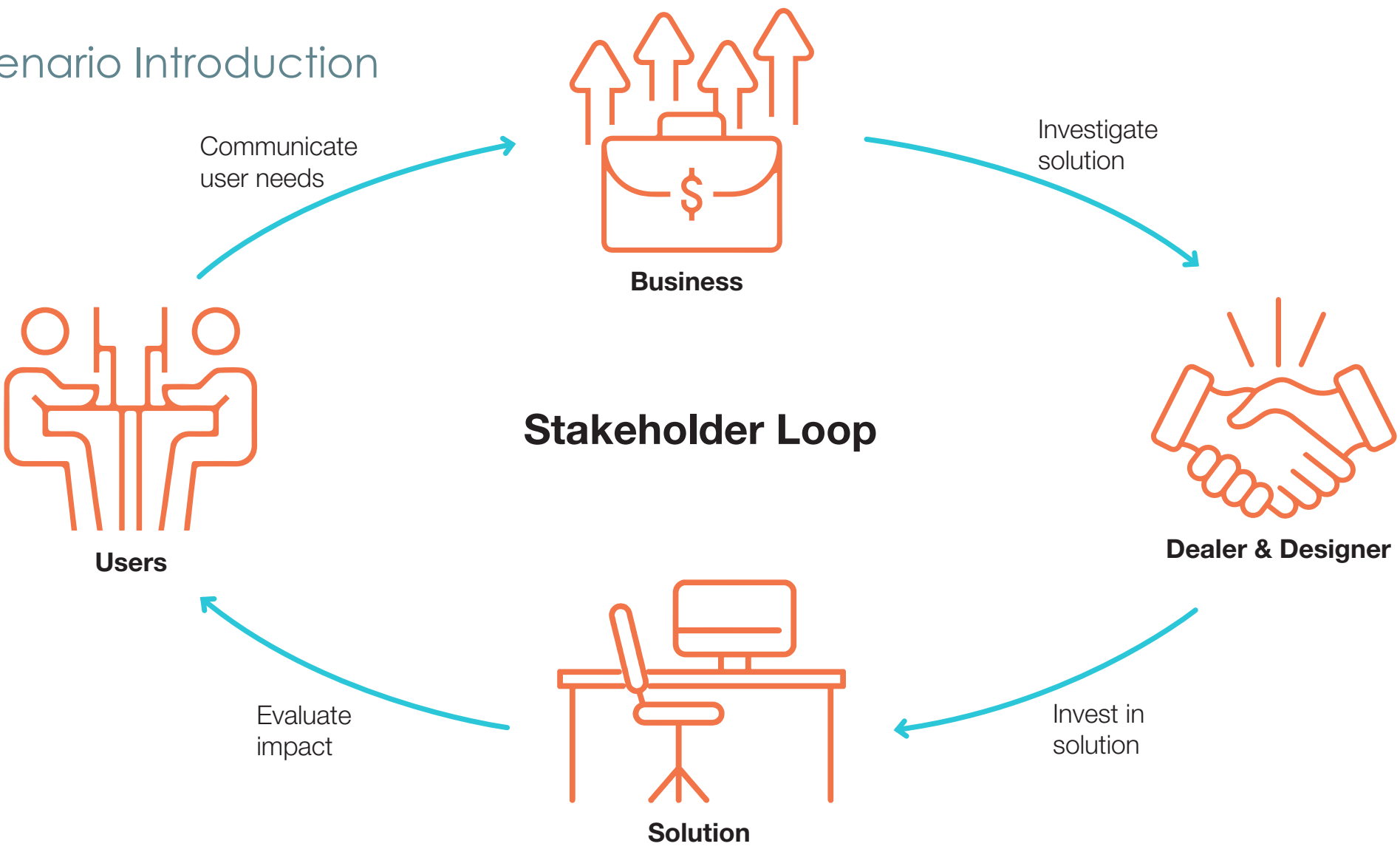
Research indicates this example workstation is not ideal for hybrid offices because...



Needs defined as relavent to hybrid offices. This is not a critique of the overall design

The workstation model Aidan uses when hotelling

Scenario Introduction



Specifications and Standards

Derived from reference to BIFMA, OSHA, ADA, WELL, and interviews with interior designers and furniture dealers



Physical Specs

- Height range: 27" - 50"
- Width range: 40" - 60"
- Depth range: 24" - 30"
- Privacy panel: 18" - 24"
- Weight Capacity: 350lbs

Light and Sound

- LED task light: 600 lumens
- Screen glare management
- Bias (ambient) light: user preference
- Sound absorbtion: Fabric sourced with Zilenzio

Additional Considerations

- Power and data routed apart
- 1 desk for every 2 employees in hybrid office interior design plan

Human Factors: Physical

Body, Sight, and Sound



Graphic provided by AOKE Furniture (AOKE, 2022)

- **Comfort** is linked to an increase in productivity
- Many workers are motivated to work in the office to have **access to ergonomic furniture**
- After inadequate ergonomics, **poor lighting** is the second largest negative impact on productivity
- Noisy offices are significant driver in worker dissatisfaction and **reduced productivity**

Focused Competitive Analysis

Needs defined as relavent to hotelling use-case



Scored 0 = NA 5 = Fully Addressed	HON Coordinate \$3,850	Herman Miller Nook \$4,200	Haworth Compose Echo \$4,600	Global Softpod \$5,100
Visual Privacy	2	4	2	5
Sit to Stand	5	0	5	0
Acoustic Privacy	1	3	2	5
Mobile	0	5	5	0
Adjustable	1	0	3	2
Misc. Features	0	2	3	5
Score (max 30)	9	14	21	17

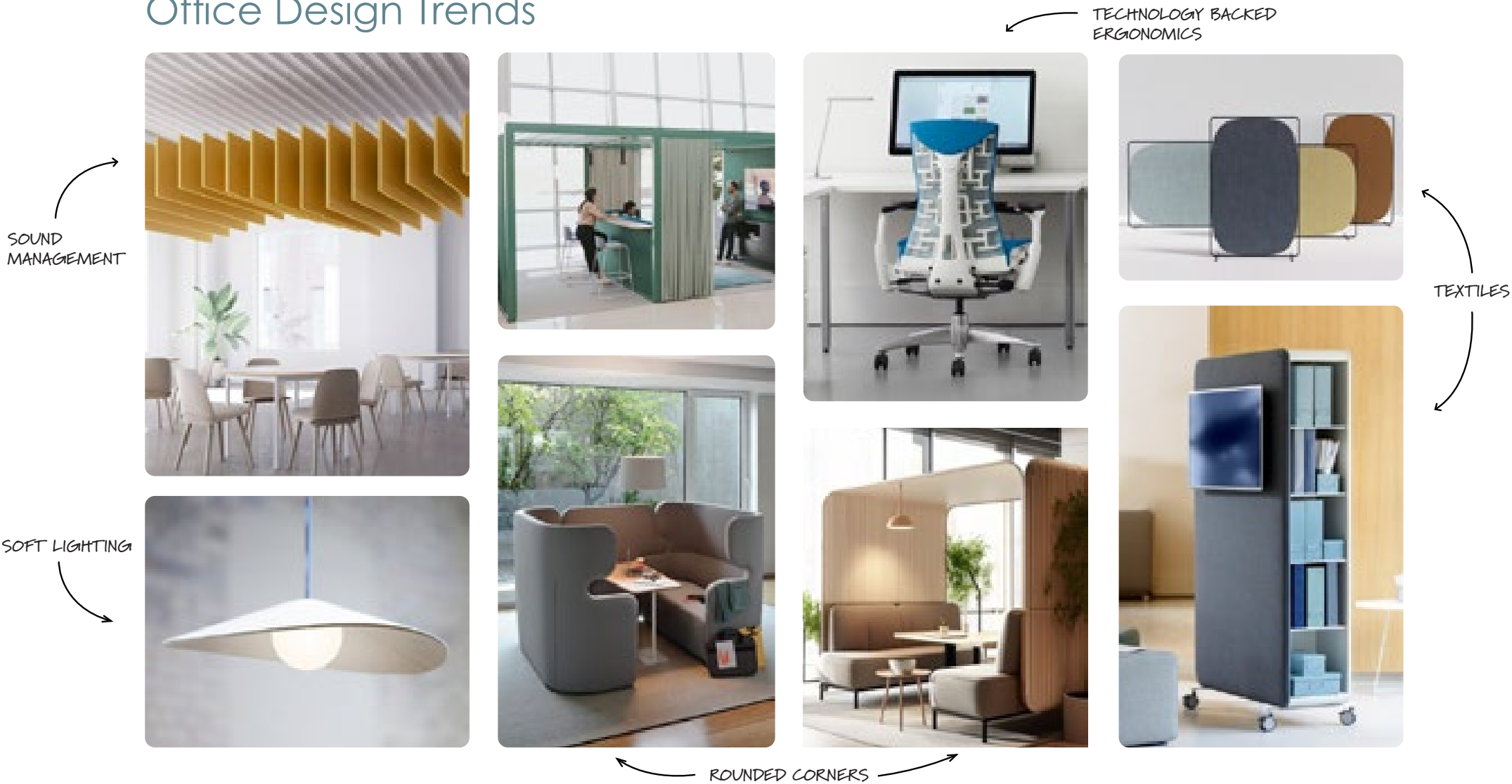
Human Factors: Emotional

Social, Wellness, Form and Material

- 74% of workers said what they missed most about the office was the **in-person interaction** and relationships
- Organizations that invest in employees' health and wellness see significant increase in productivity and **job satisfaction**
- Humans **prefer organic** forms because of an implied saftey
- Soft materials and textures create a **feeling of warmth**



Office Design Trends



User



Ave Magee

Age: 33
Salary: \$110,000
Job: Creative Director
Location: Minneapolis, MN

Married with 1 kid
Works from home 2 days per week
Passionate about health and fitness
Makes and sells jewelry on the side

Task

Jenny **doesn't have an assigned desk**. The "hotel" desks don't feel welcoming because they are a blank slate every morning. There are drawers but she can't use them so the space **doesn't feel like her's**

Her team pitched their CEO to invest in **hybrid specific furniture**

Dealer



Katey Smith

Age: 50
Salary: \$90,000
Job: Furniture Dealer
Location: St Paul, MN

Single
Works from home 2 days per week
15 years of industry experience
Educated as an Interior Designer

Task

Working with Guillermo and his employees, Katey has helped identify furniture solutions tailored to the office's **transition to hybrid** scheduling

With 40% dealer discount, aims to come in under **\$70,000 budget**

Purchaser



Guillermo Ariza

Age: 37
Salary: \$180,000
Job: CEO of Marigold Marketing
Location: Minneapolis

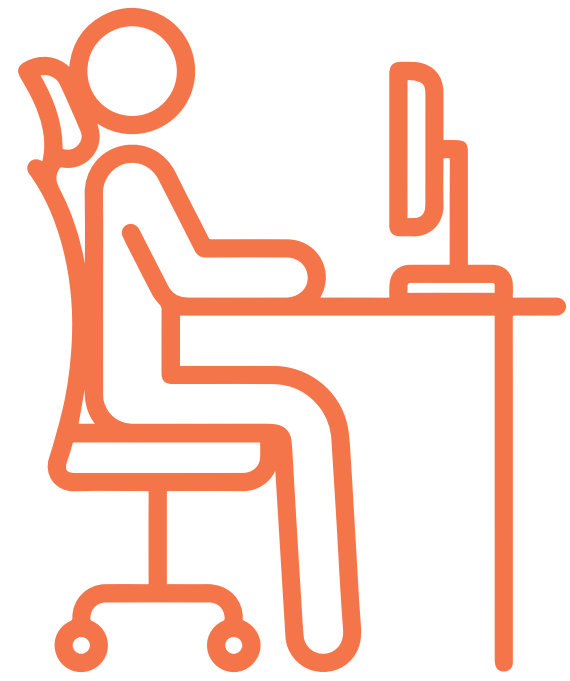
Married with three kid
Works from home 2 days per week
Managing company of 50 employees
Passionate about his work

Task

To help reduce turnover, Guillermo decided to **invest in 25 workstations** specifically **designed for hybrid** offices. His goal is to have most of his employees in the office 3 days per week which he seeks to accomplish by **increasing job satisfaction**, health, and wellness while in the office

Furniture Budget: \$70,000

Design Criteria



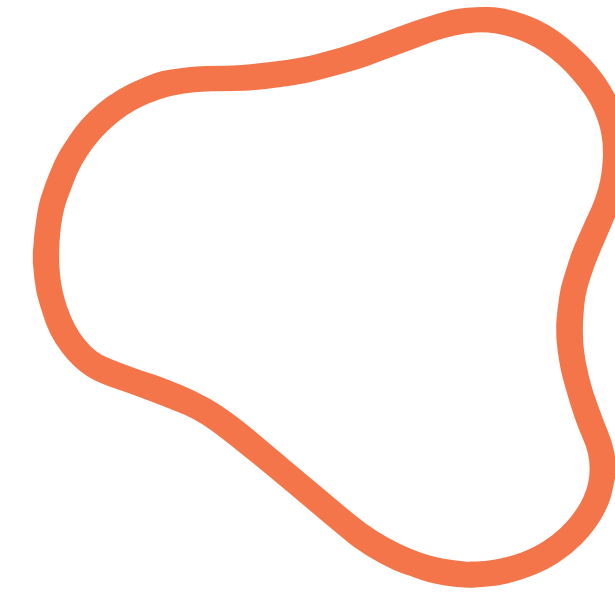
Ergonomic

Address the concerns
of the target user



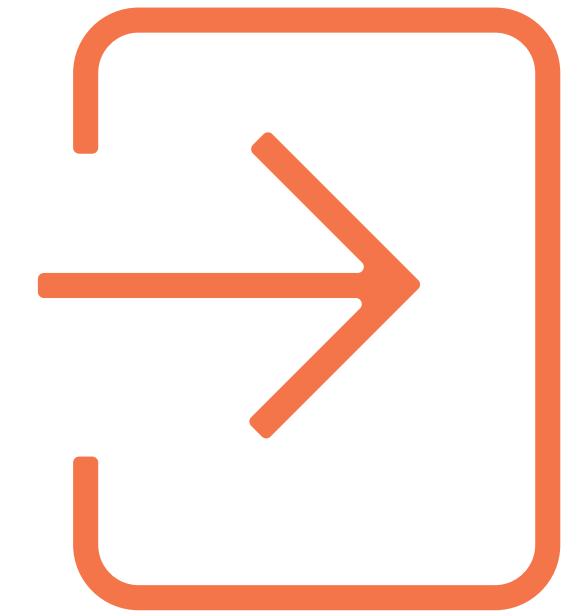
Private

Address number one
user concern



Human

Curves and forms that
appeal to the senses



Hybrid-centric

Features design to benefit
hotel-desk users

Inspiration

LEAF
FORM



SCULPTURAL



PLAYFUL



RECYCLED THERMO PET

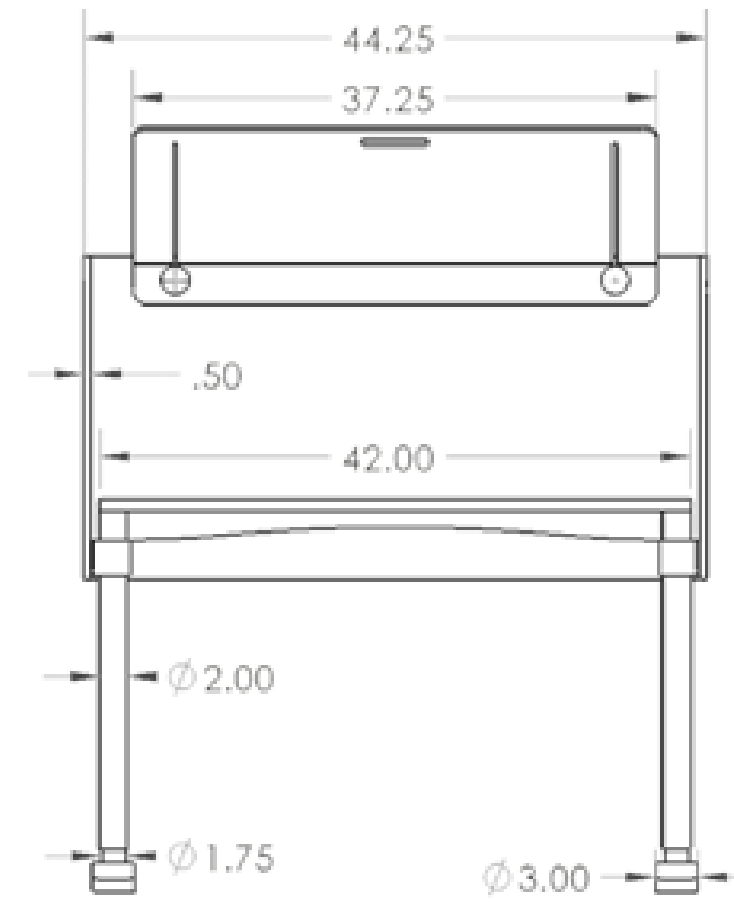
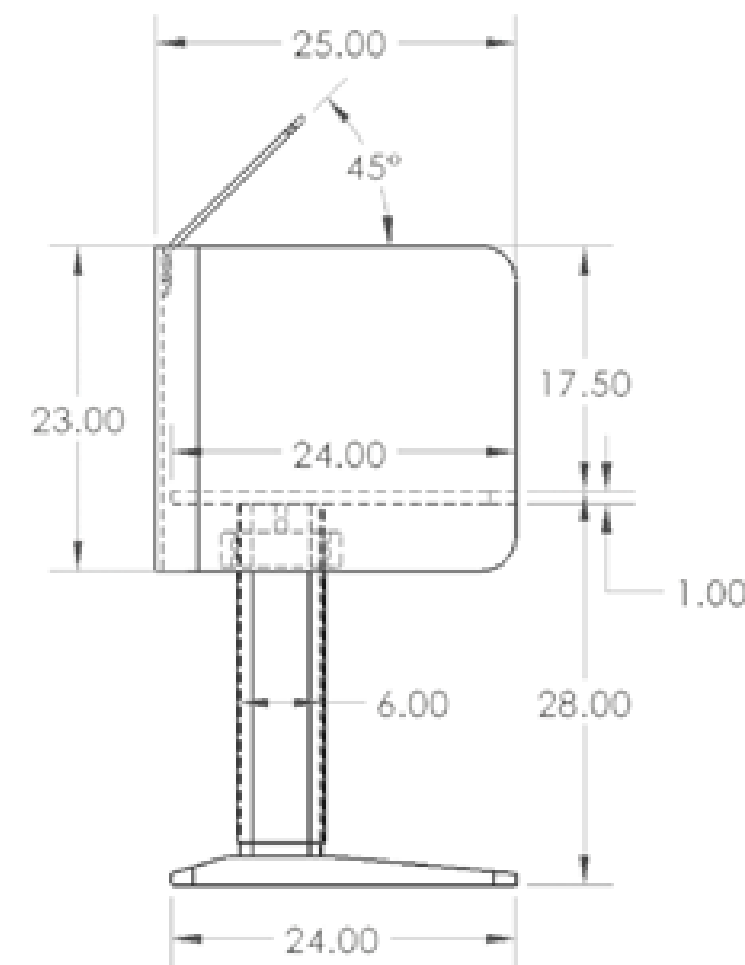
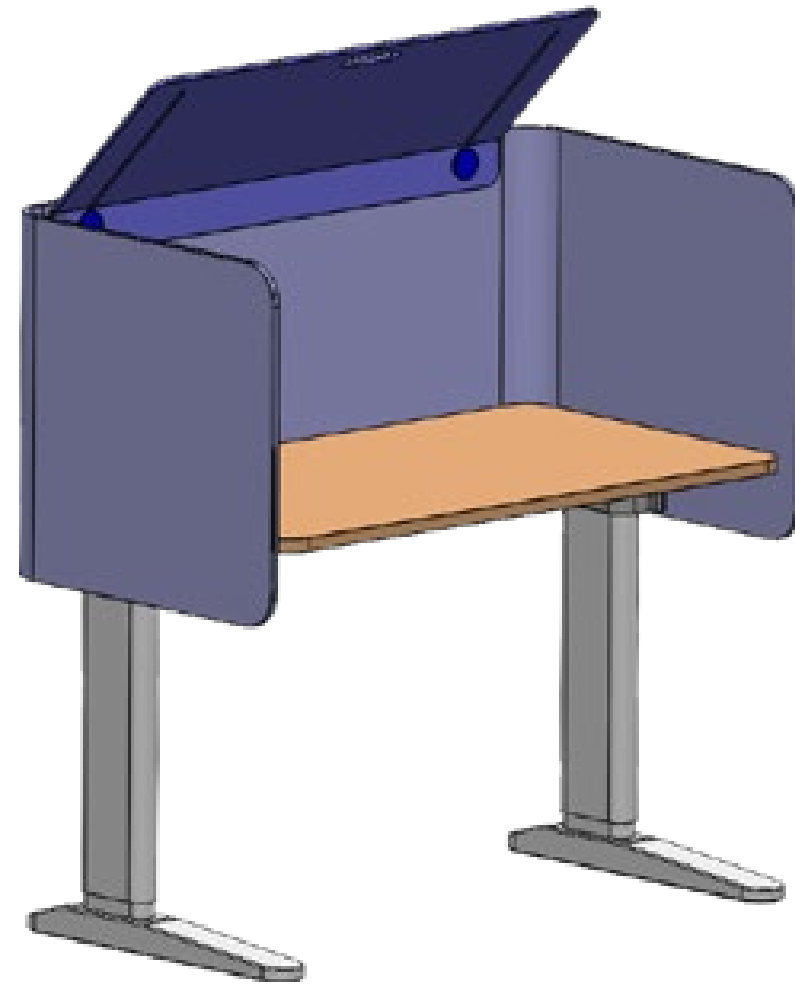
Concept 1

Key benefit: Collaboration and openness



- Exploring opportunities to innovate assembly and features on an established standing desk form which enable **easy communication** between near proximity teams
- The privacy panel features an **secondary sliding panel** which provides additional visual and acoustic privacy

Sketch Modeling



User Testing

Sitting height, full view



"I have **no emotional reaction** to this one"
- Sophie

Agreement that the cardboard feet on the model look better than the CAD model feet

Liked the general privacy panel but it needs to be a couple inches **higher to block line-of-sight**

Standing height, full view



"I **don't like the legs**, they don't match the rest of the design"
- Marton

Straight top edge gives the user the **option to work off-center**

All interviewees have pre-installed monitors at their desks, this design will need to consider how

Sitting, general privacy up



"I **like the extra panel** but I question how much it would actually help with sound management"
- Lexi

Desk top **dimensions voted best**

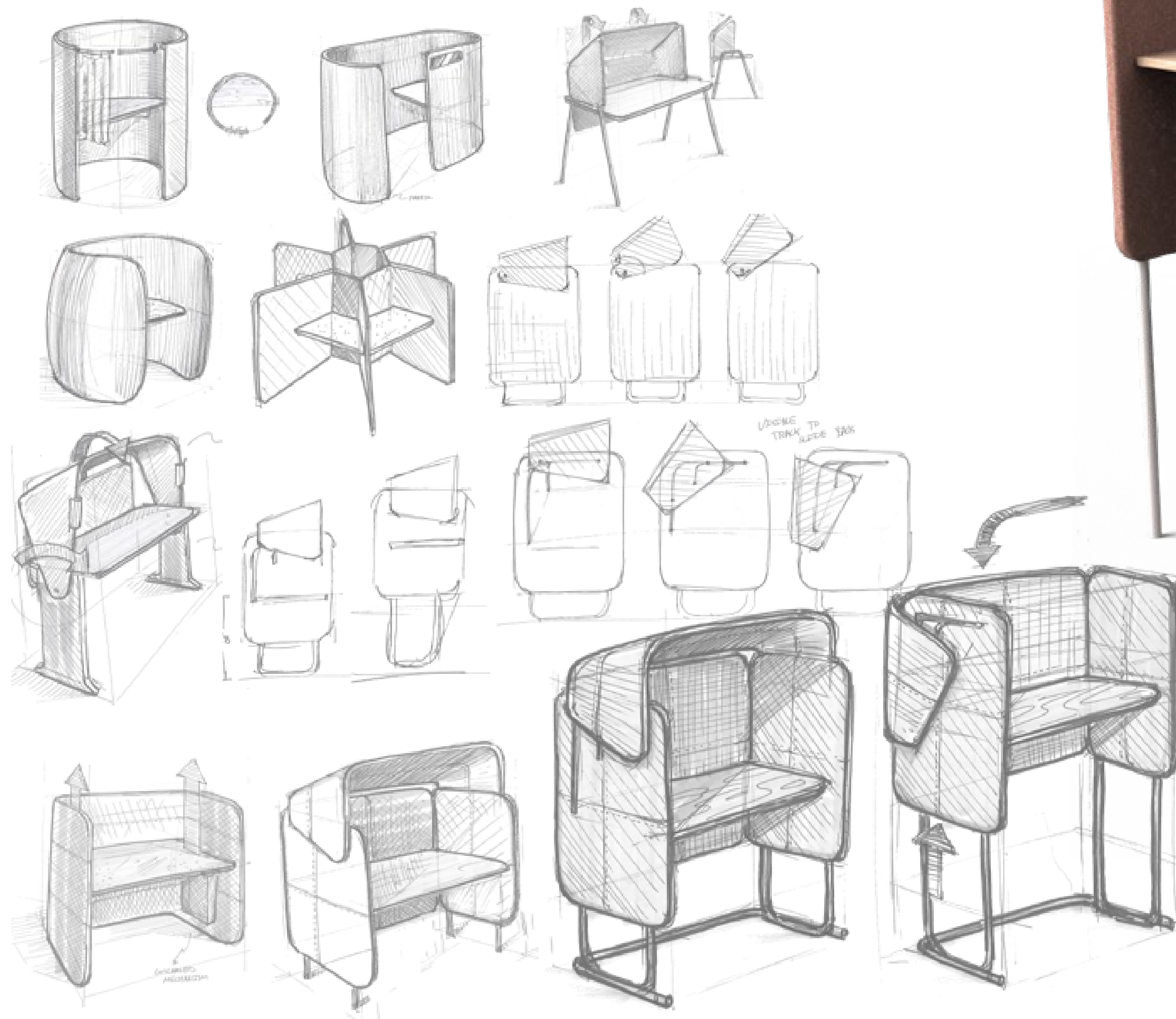
All **appreciate the option** for fully down panels for easy collaboration

Standing, extra privacy up



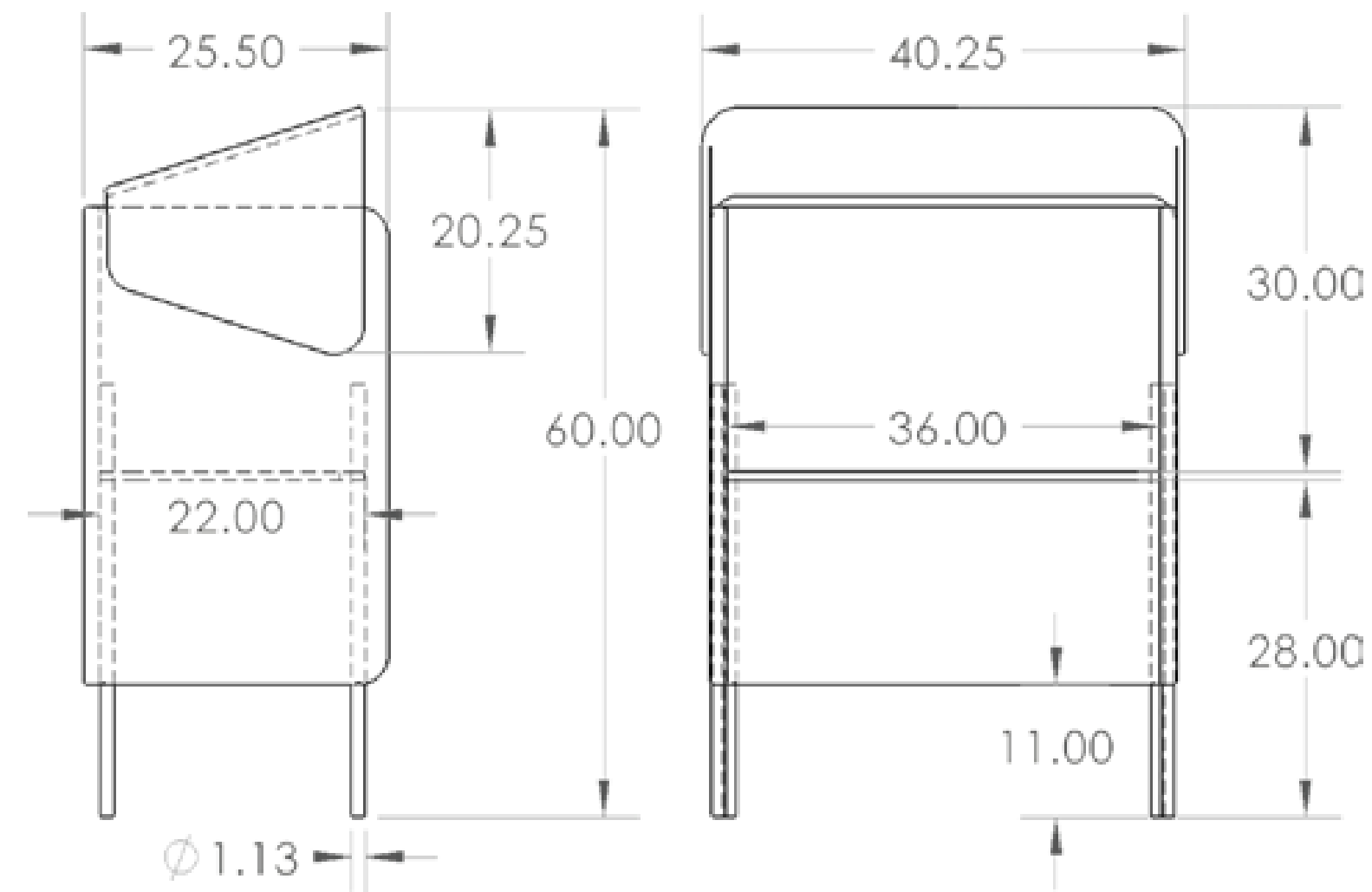
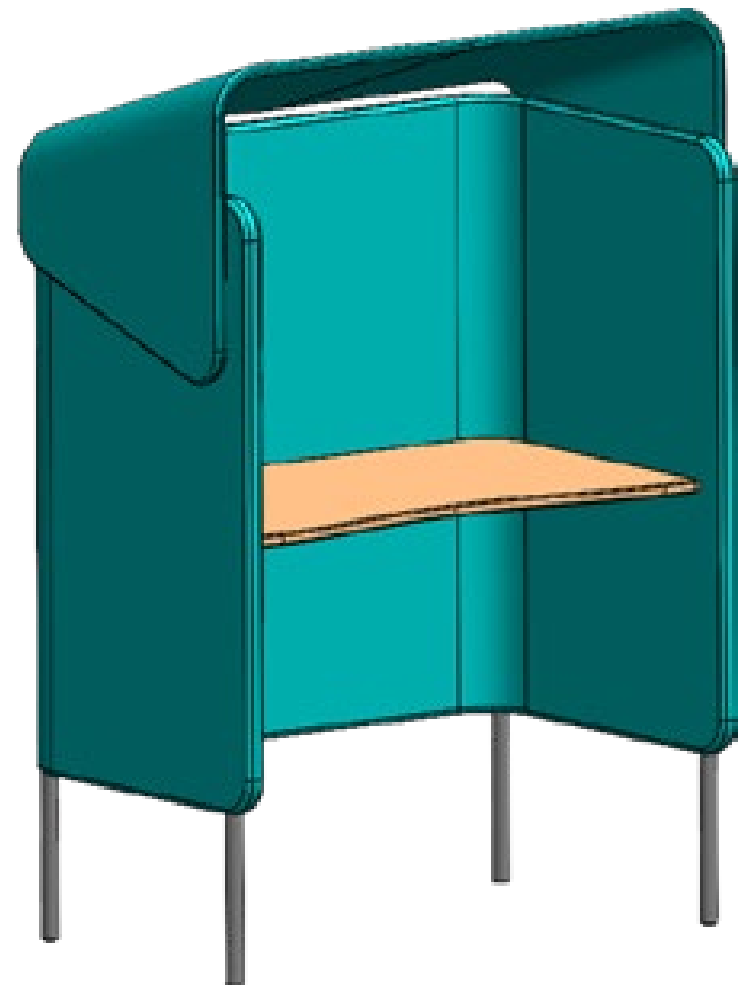
Concept 2

Key benefit: Privacy and focus



- Exploring opportunities for creating **acoustic and visual privacy** while balancing the feelings of being able to focus and being confined
- The **top shell is on tracks** which let the user move it to the best position to balance privacy and openness

Sketch Modeling



User Testing

Sitting height, top up



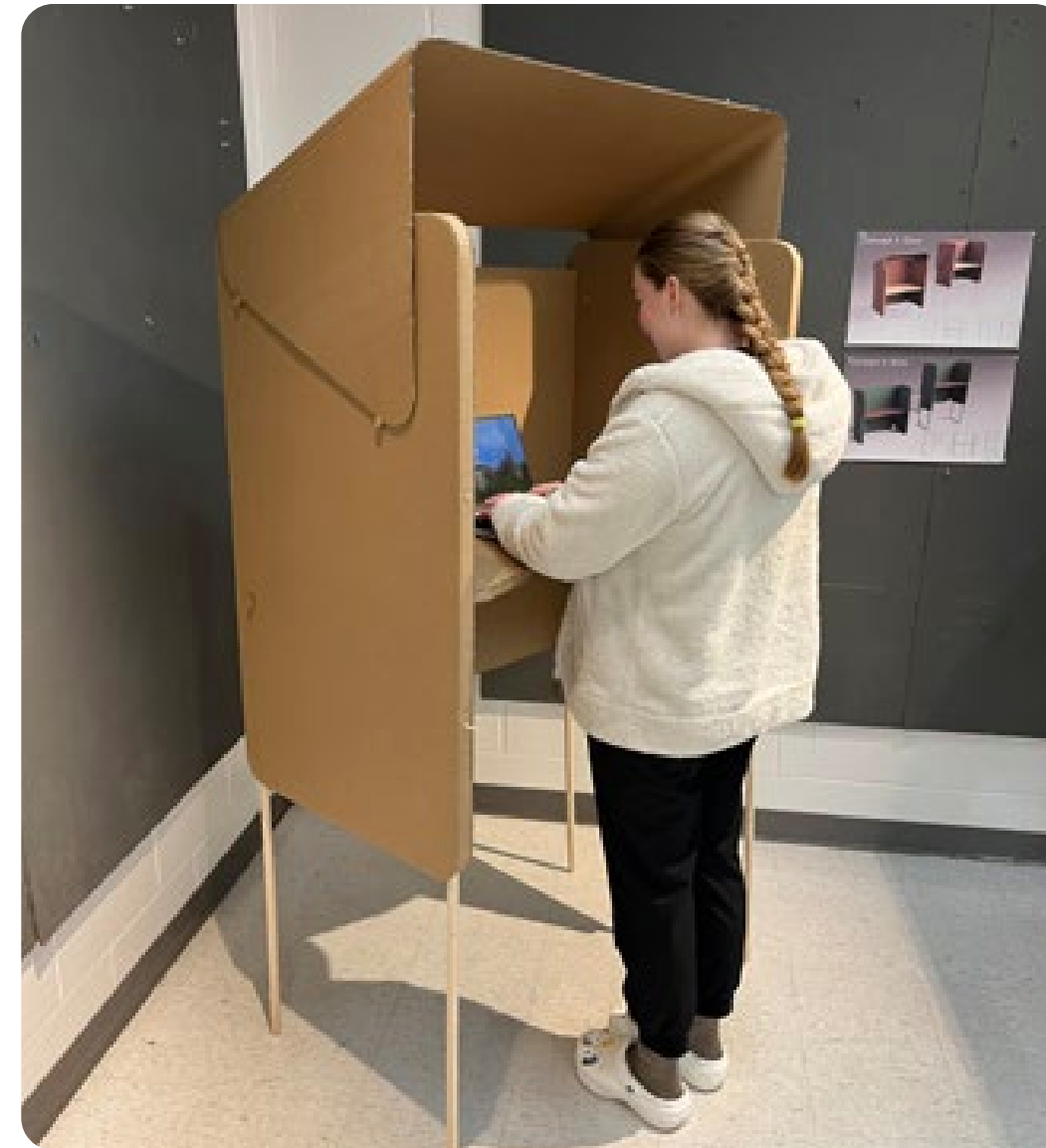
Users agreed the **lighting will be crucial** in not feeling claustrophobic when top is up.

“The **top is too small** in every way. I feel boxed in, especially when the top is up”

- Marton

Voted overall **most private**

Standing height, top up



“The desk top **curve feels good**. I know its not functional, I just like looking down at it”

- Sophie

Top shell positioning handles on the sides for **accessibility**

Users likes the side of the gap of the cardboard model more than the render

Standing, top down

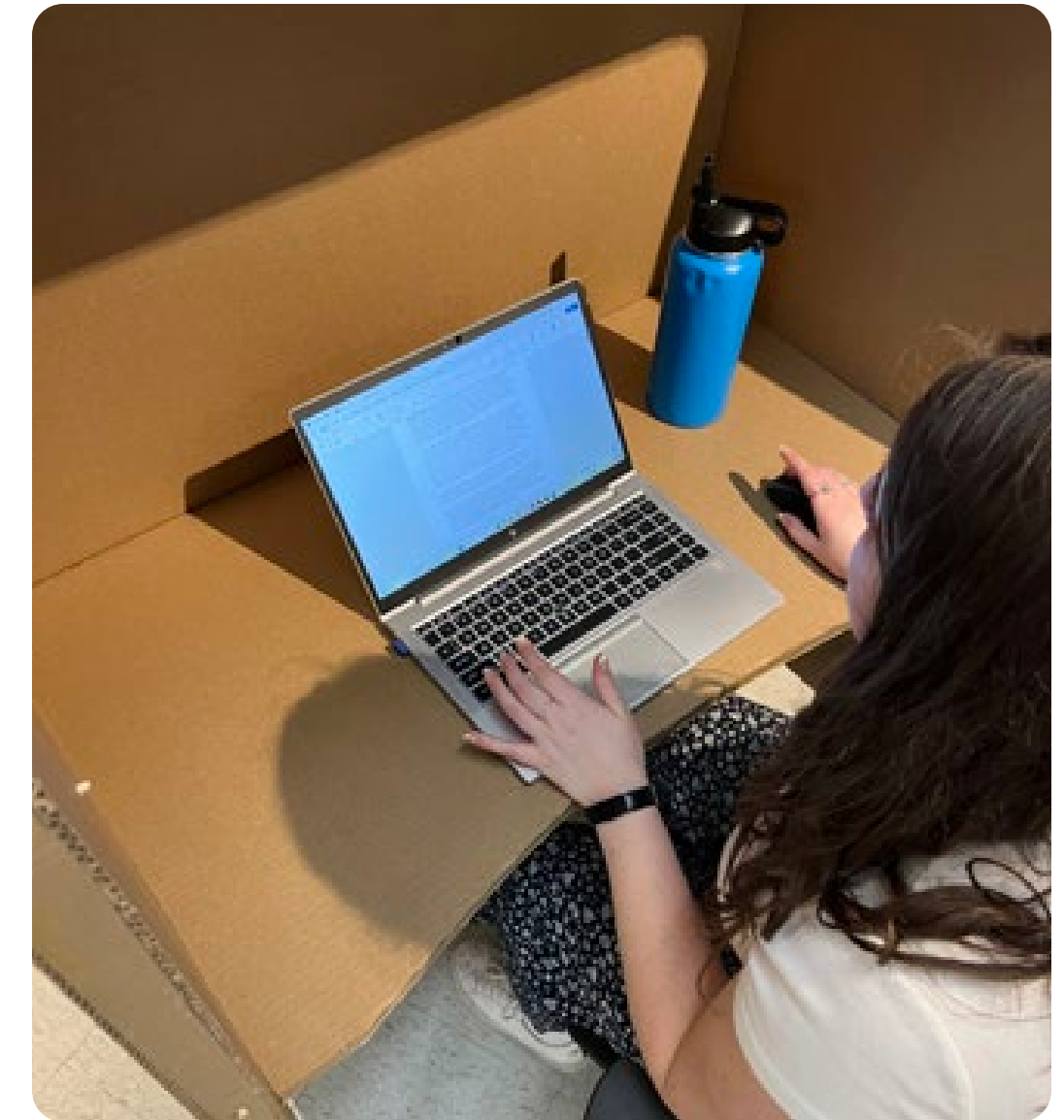


Make the overhead **shell positionable** at any point to control the feeling throughout the day

“It looks almost like residential furniture, but in a good way. It has some of the **comfort of working from home**”

- Sophie

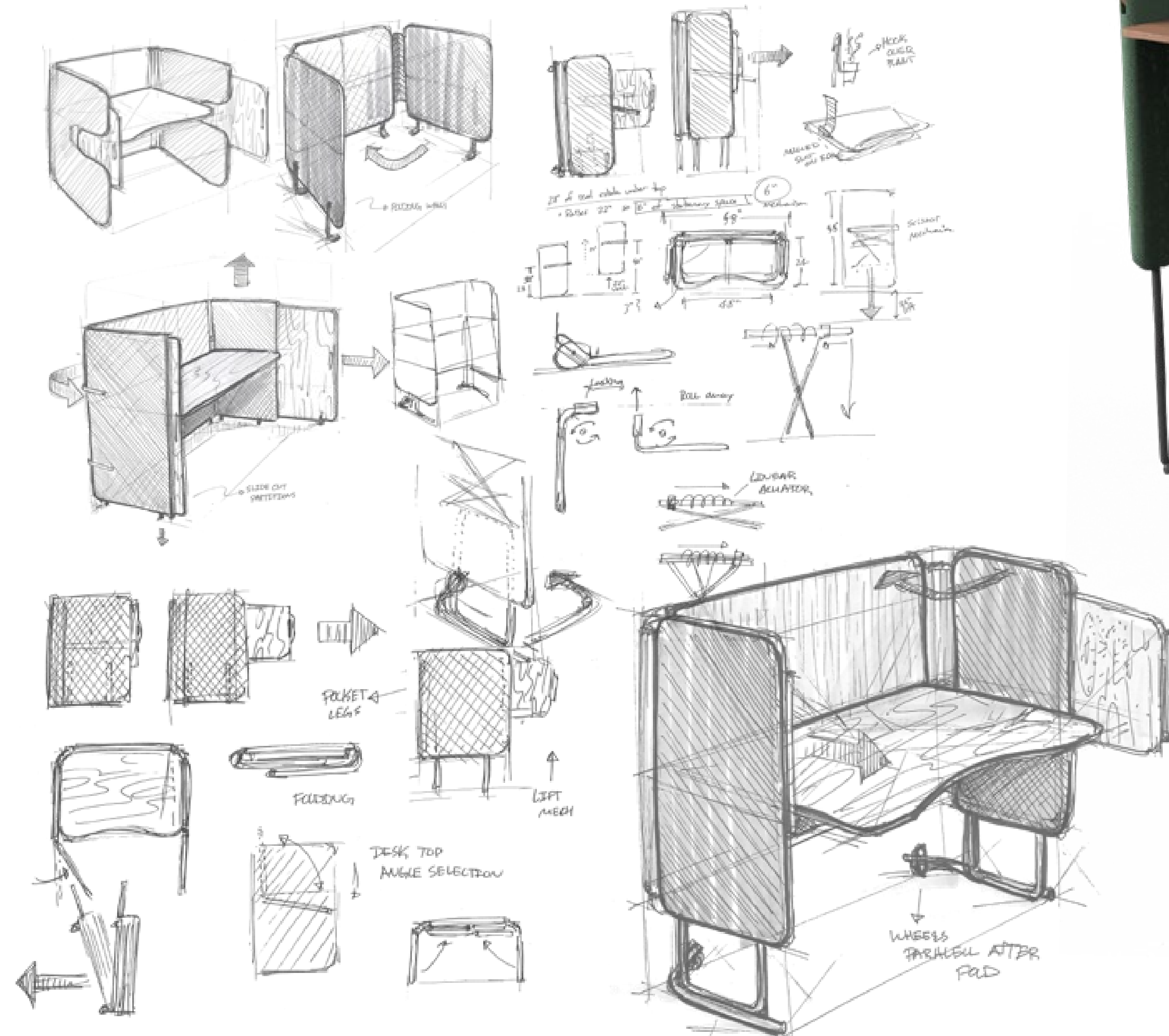
Over-the-shoulder



Users felt like it looks **unstable while in standing** position

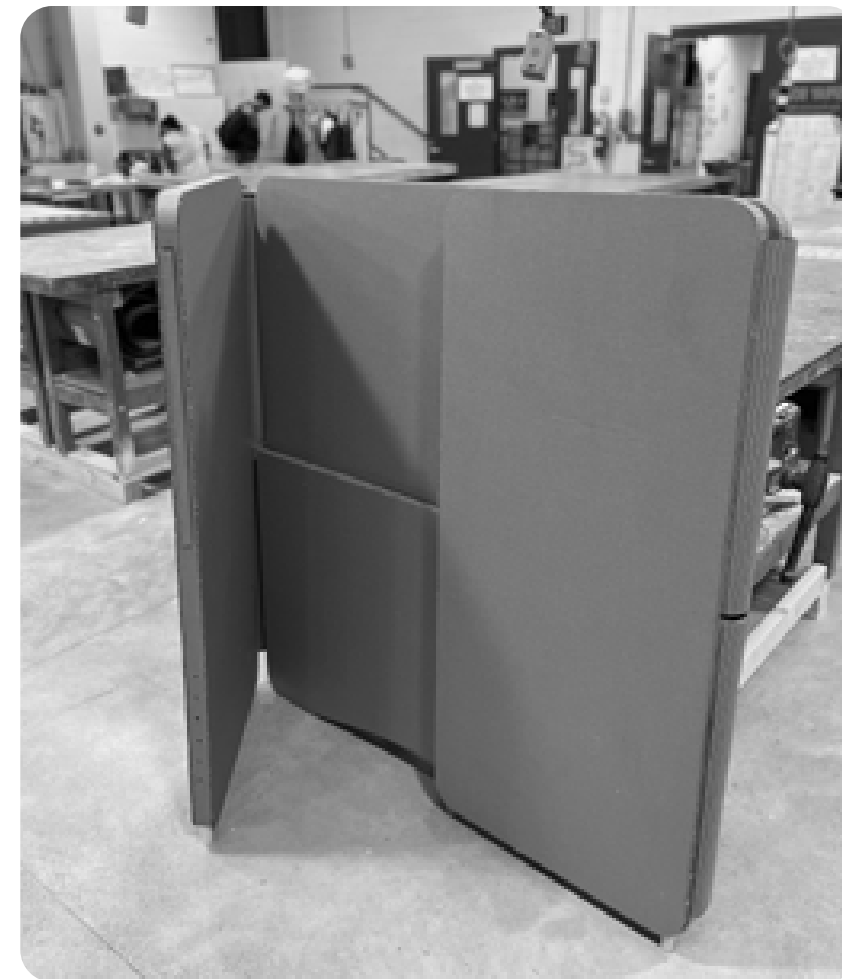
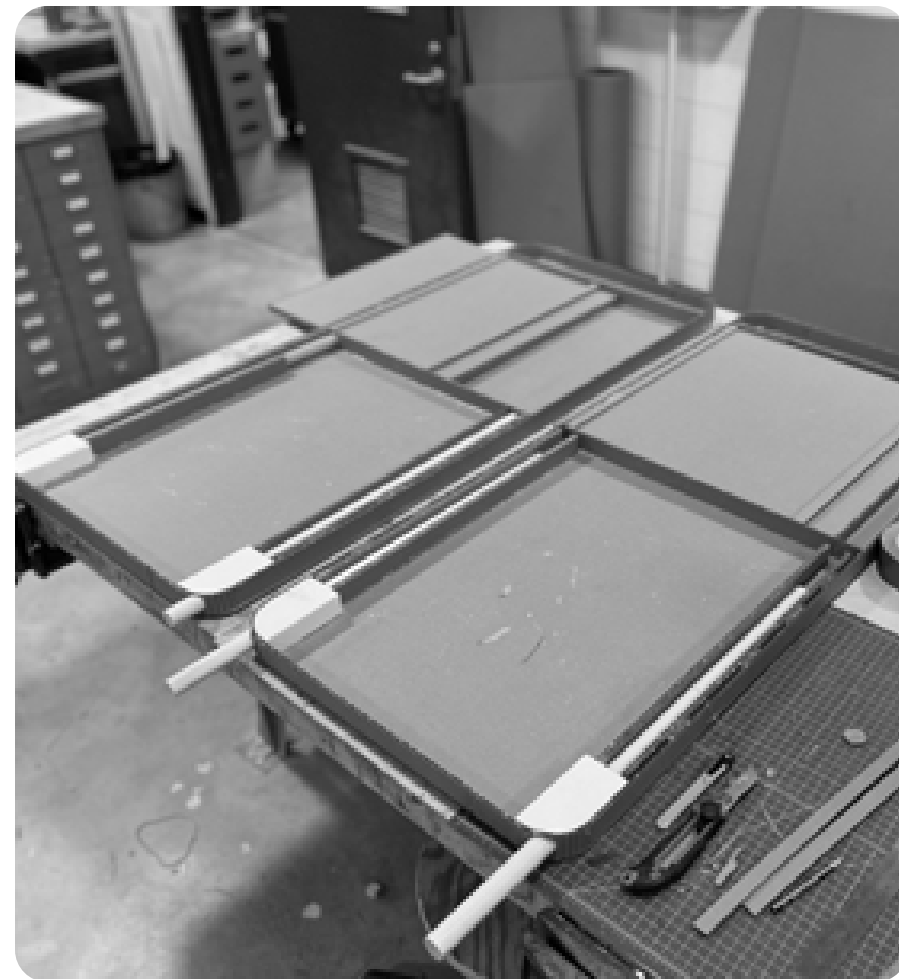
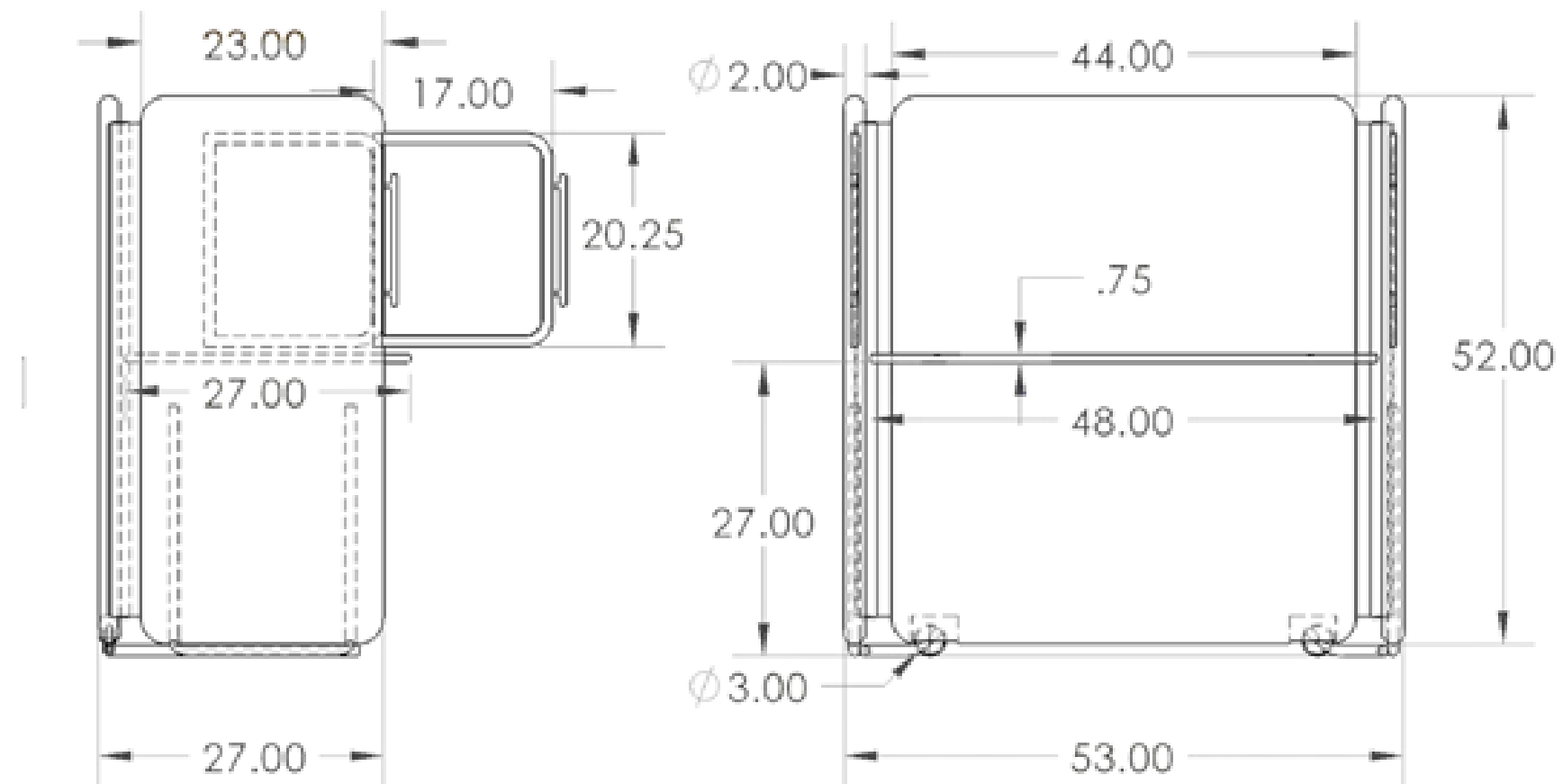
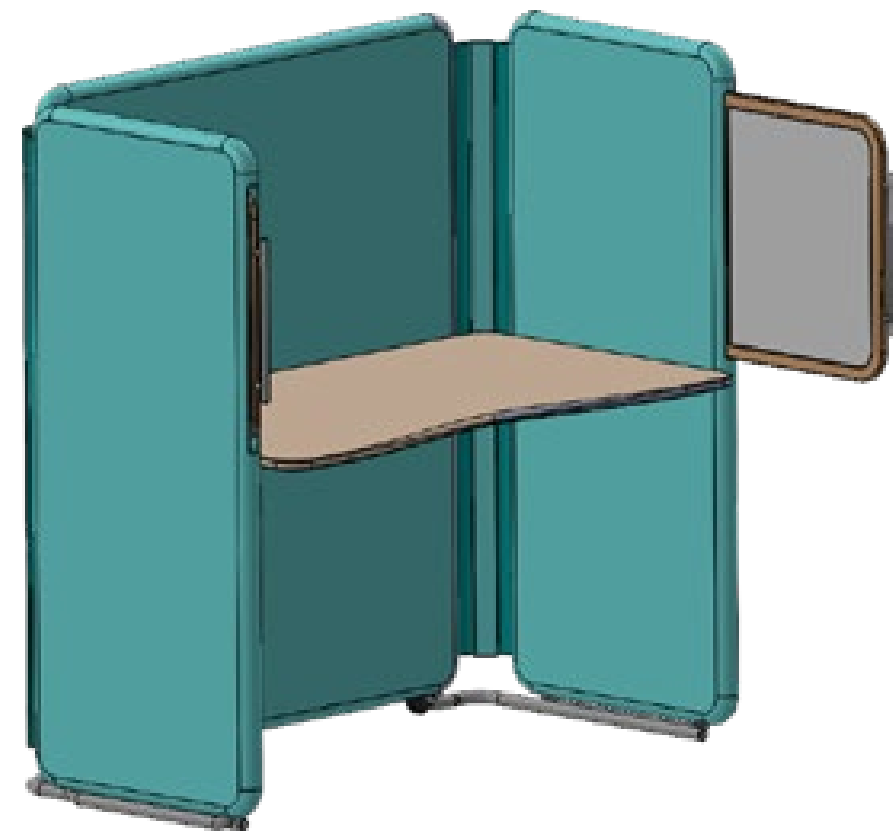
Concept 3

Key benefit: Fold and store for small spaces



- Exploring opportunities to design a fully functional workstation which can be **moved or stored**, giving small offices additional multi-use space
- The desk top folds down and the sides fold in resulting in a **total thickness of less than 8"**

Sketch Modeling



User Testing

Sitting height, standard



“The **sliding panels are cool** but the white board would be back to far for me to regularly
- Marton

Testers were drawn to the shell of concept 2 and wonder if that idea can be applied to this version

The user does not benefit from the ability to fold.
Have to **find a balance** between **form and function**

Over-the-shoulder

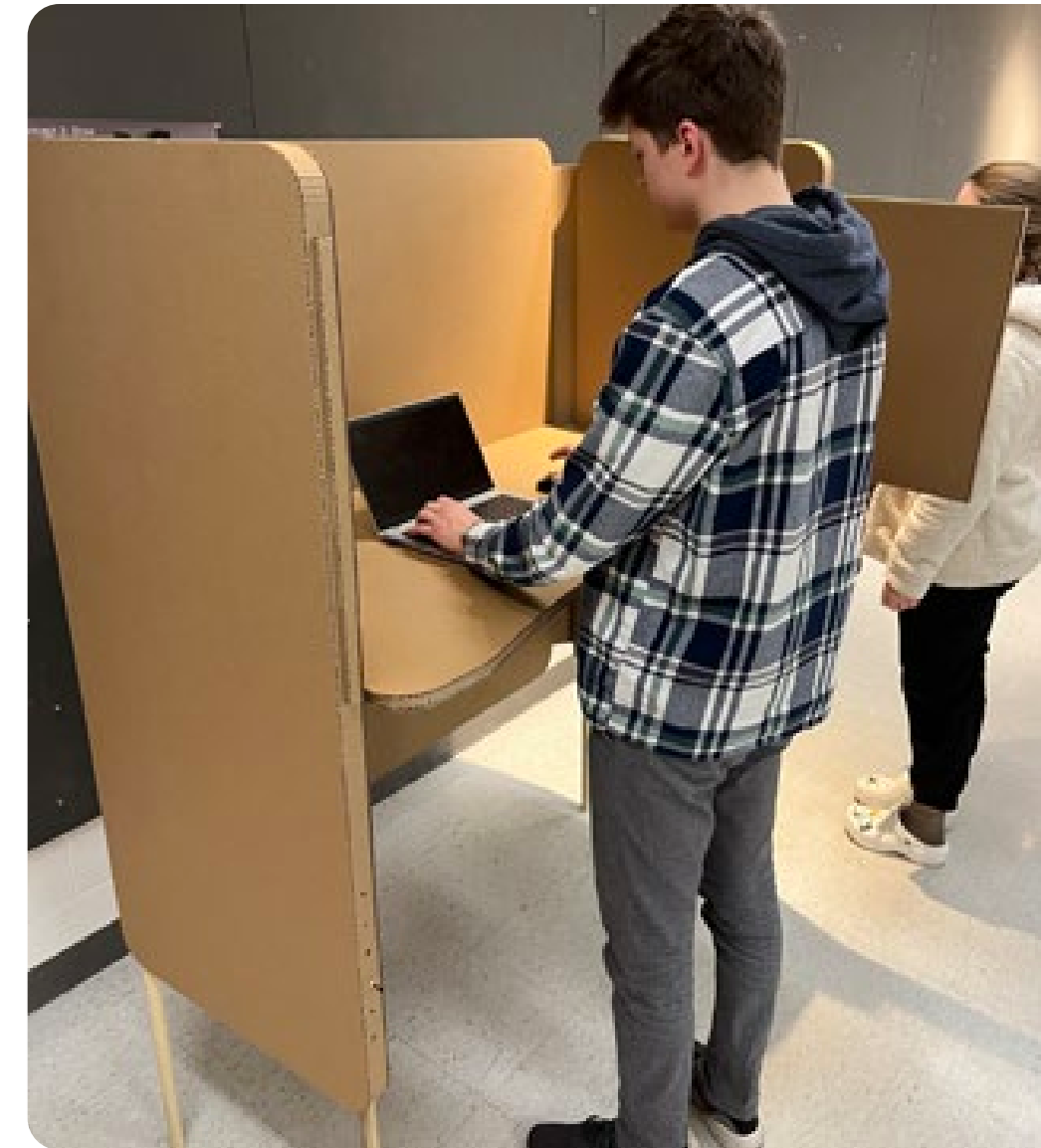


“It just **looks like a cubicle** that can raise and lower”
- Marton

All of the users **like the pullout side panels** and asked if it can be applied to the other concepts

The folding and mobility is clever, but it has real world **concerns for power and data**

Standing with pullout



48” by 24” is **too big for hotelling**. Not having my random stuff there would make the space feel awkwardly empty”
- Lexi

Standing with pullout 2



“I feel like **I have privacy** but I don’t feel like I’m blocking out the world”
- Sophie

Concerns about stability when standing.
Users worried it looked off balance and tippy

AI-AL
Design

1. w
2. w
3. w

The Importance of Feedback

The goal was to create a workstation which was welcoming and human, a space which felt like home away from home.

After receiving feedback from two top industry professionals; the research confirmed the need for a better hybrid-centric workstation, but this specific concept lacks the “it” factor. **“It doesn’t *feel* human”.**

Back to the drawing board ...*20 days until deadline*



Revised Problem Statement

“To design a ***human-centric*** workstation for ***hybrid*** scheduled ***graphic designers***”

Human-centric

- Natural/organic
- Familiar
- Comfortable

Hybrid worker

- New workstation everyday
- Brings everything in a bag
- Want to feel at home

+

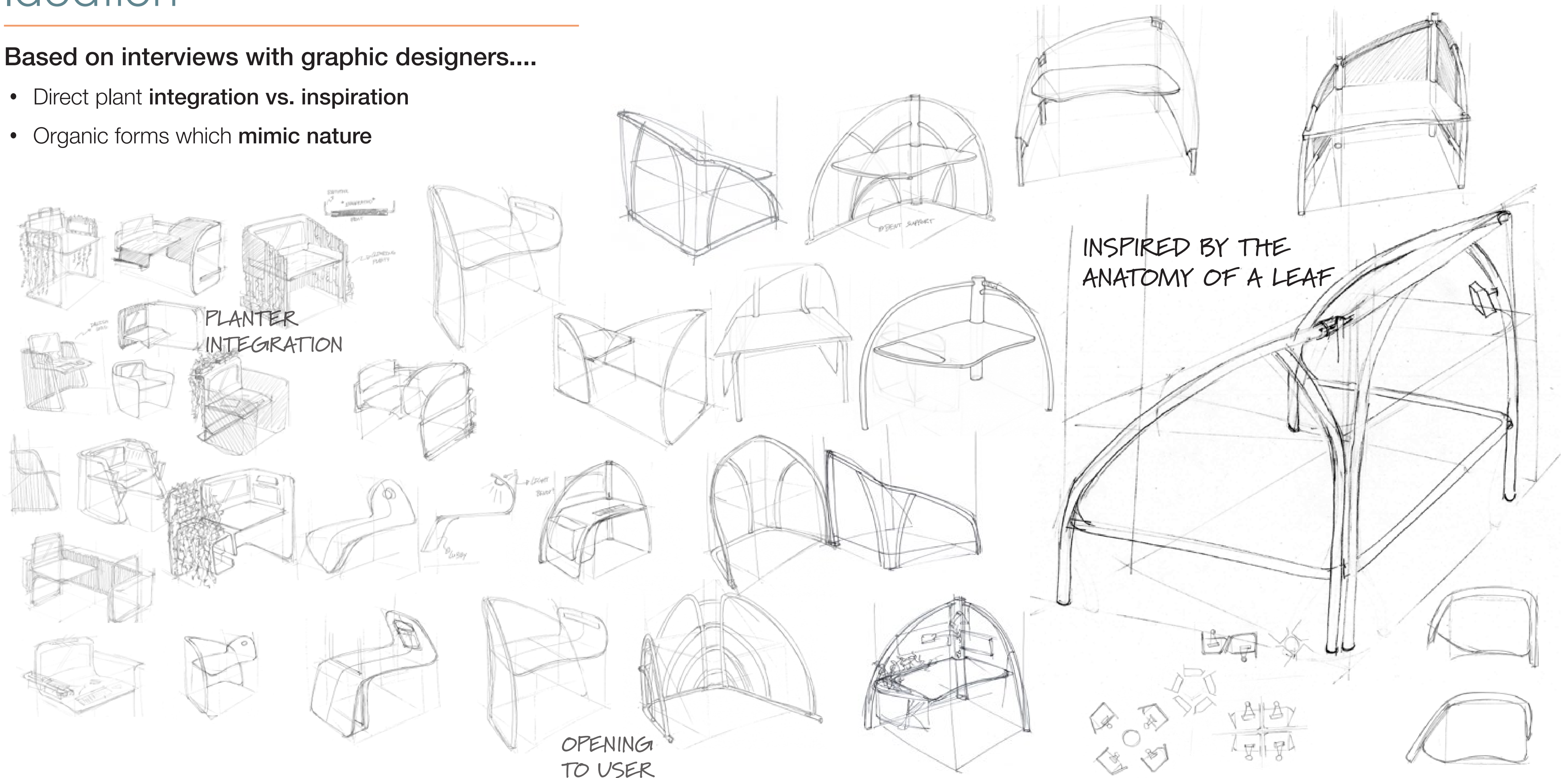
Graphic designers

- Room for two screens
- Privacy is low priority
- Love plants

Ideation

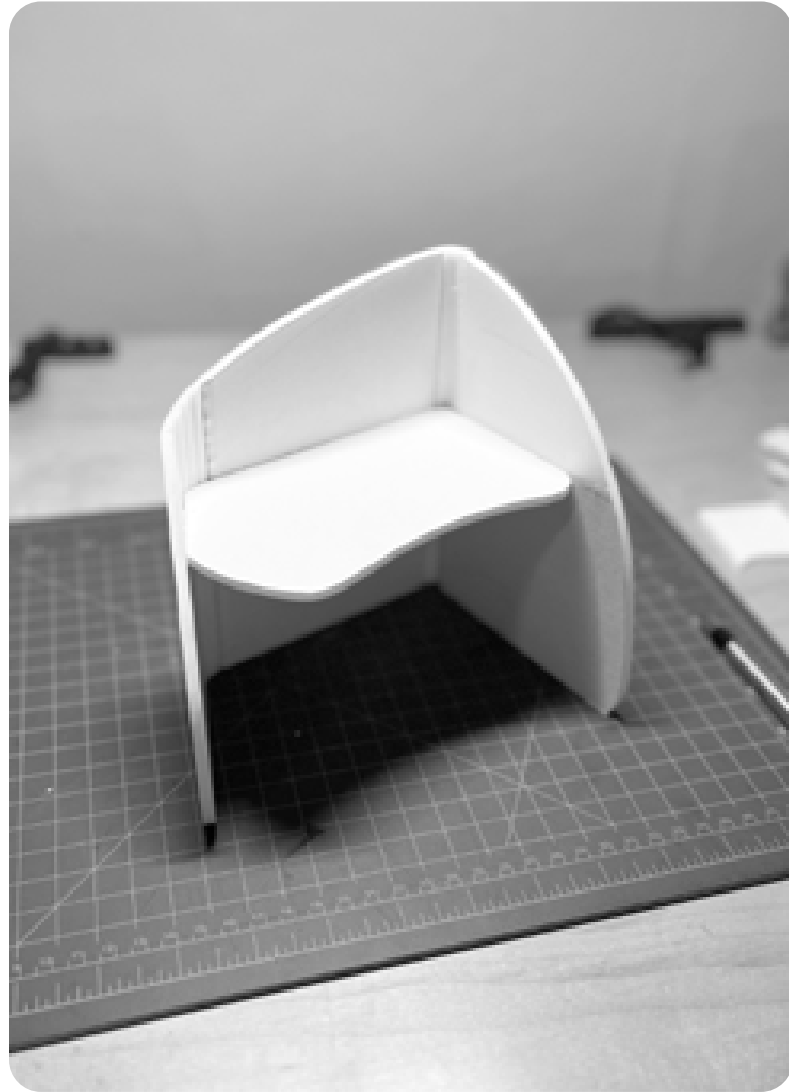
Based on interviews with graphic designers....

- Direct plant **integration** vs. inspiration
- Organic forms which **mimic nature**

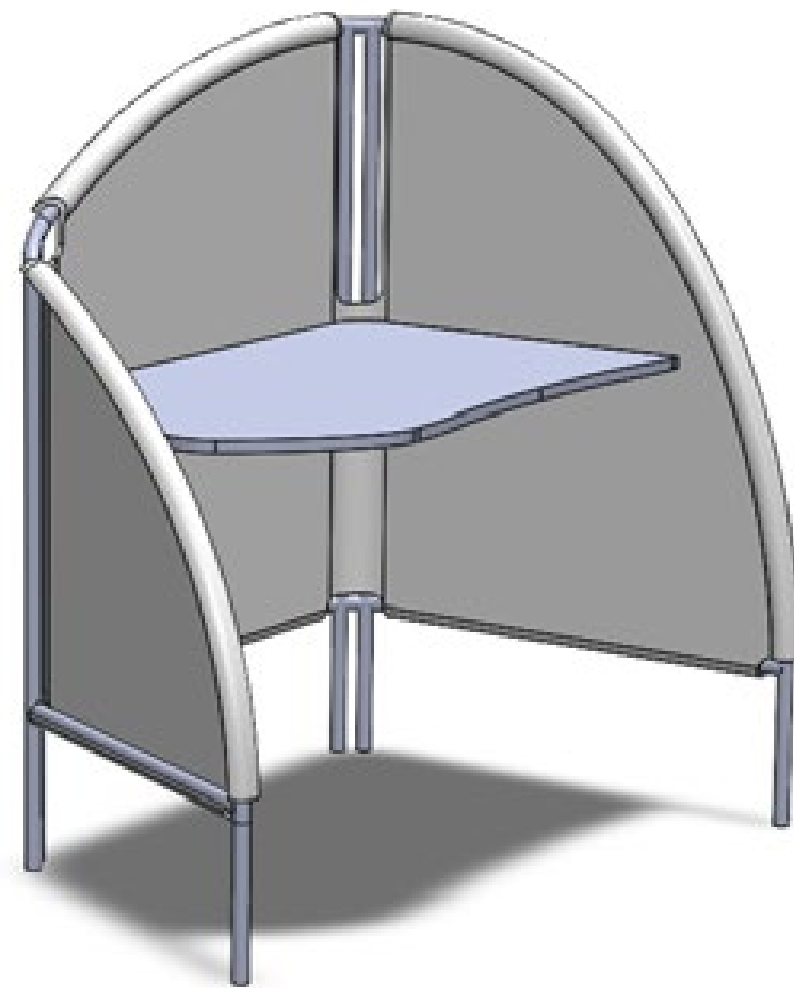


Rough Modeling

Foam core model confirmed general silhouette



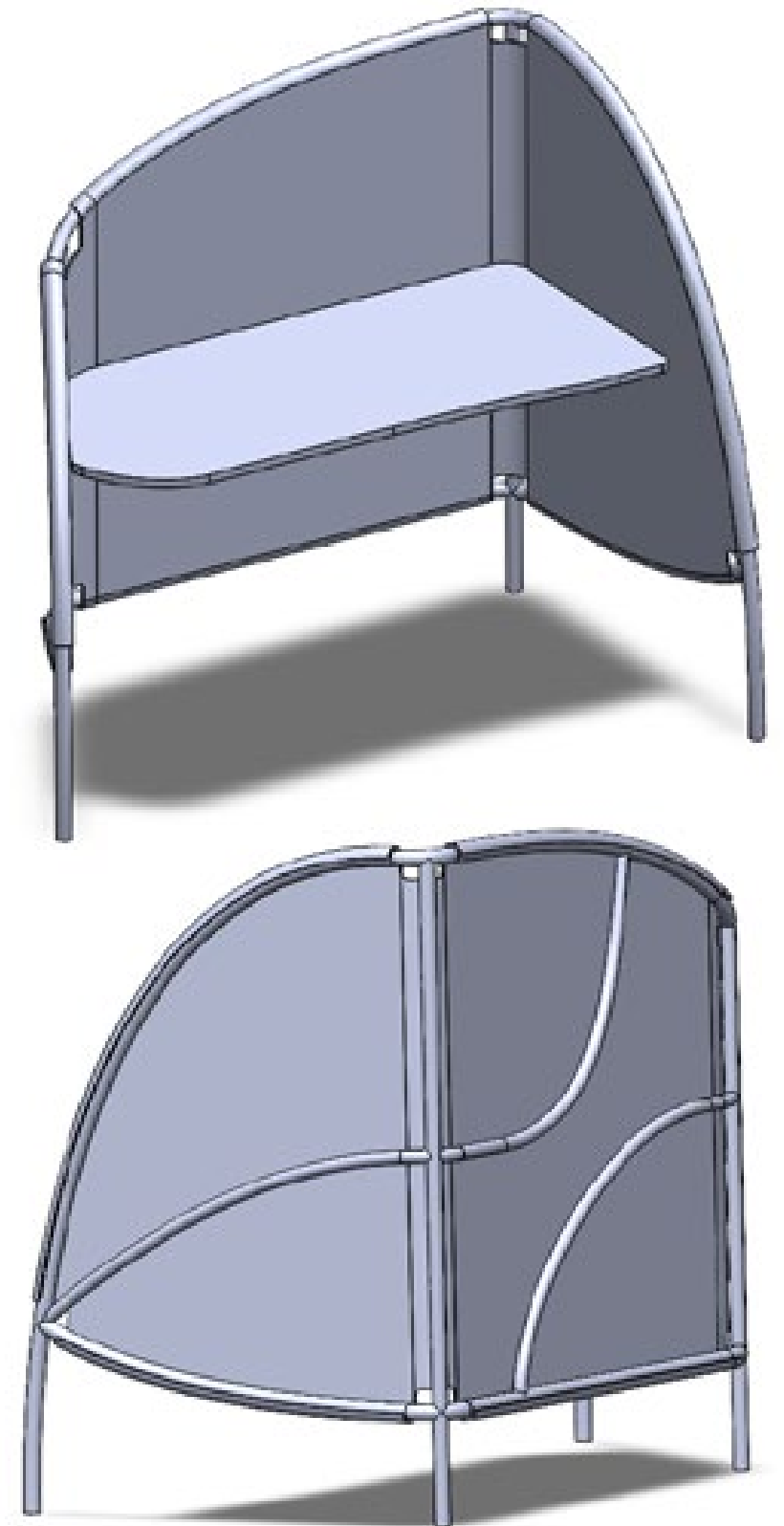
Bottom was too linear to be inspired by nature



Too much like a bat wing

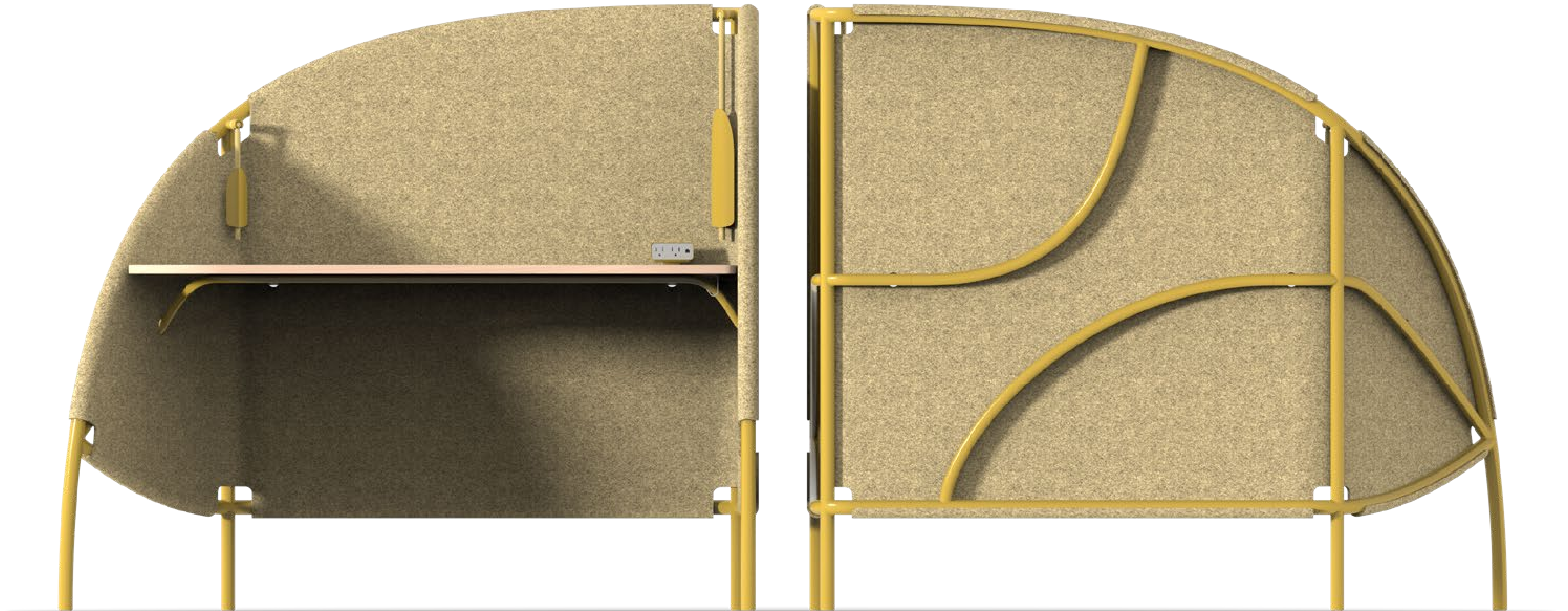


Side profile modeled after a leaf blowing in the wind

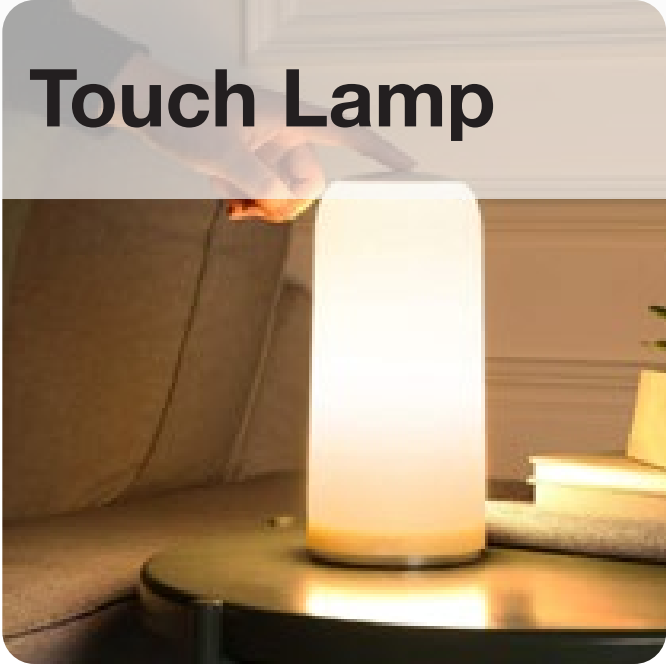
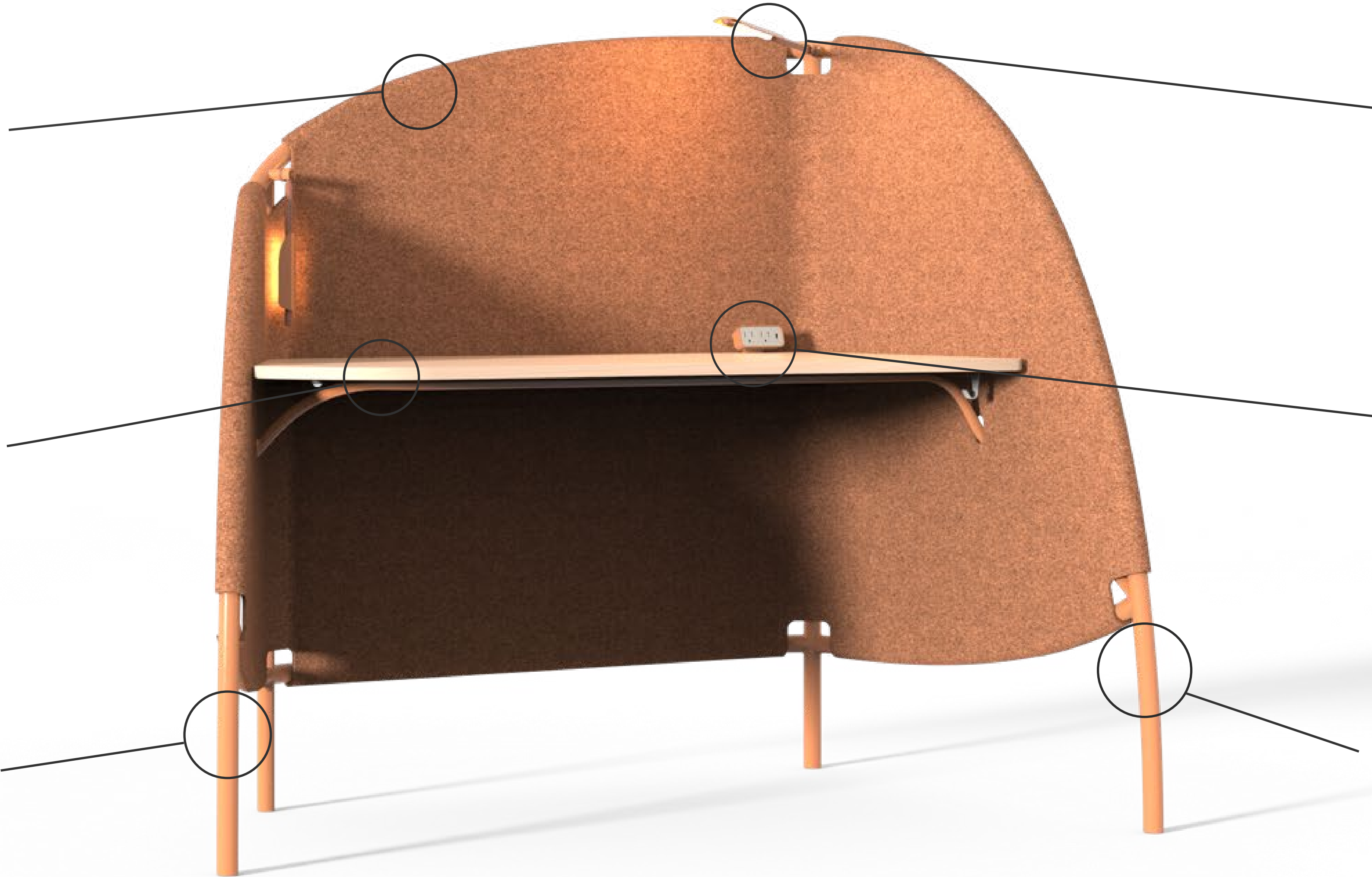
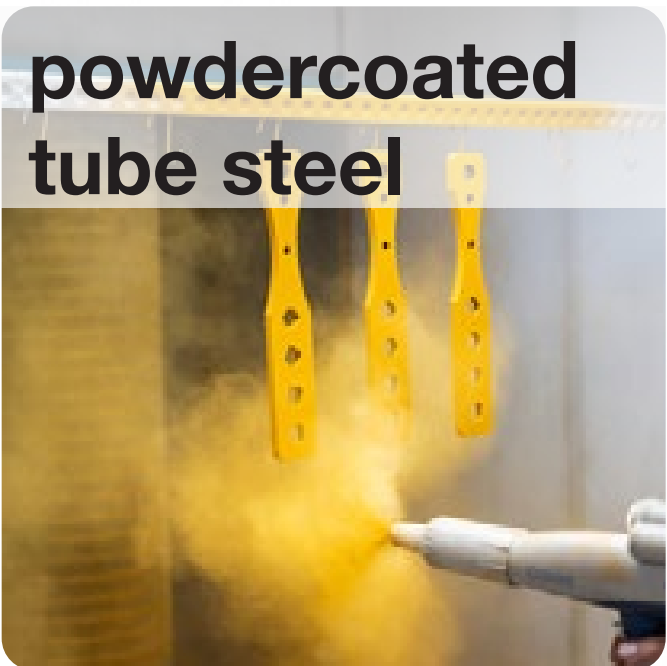


envelop.

Designed for designers

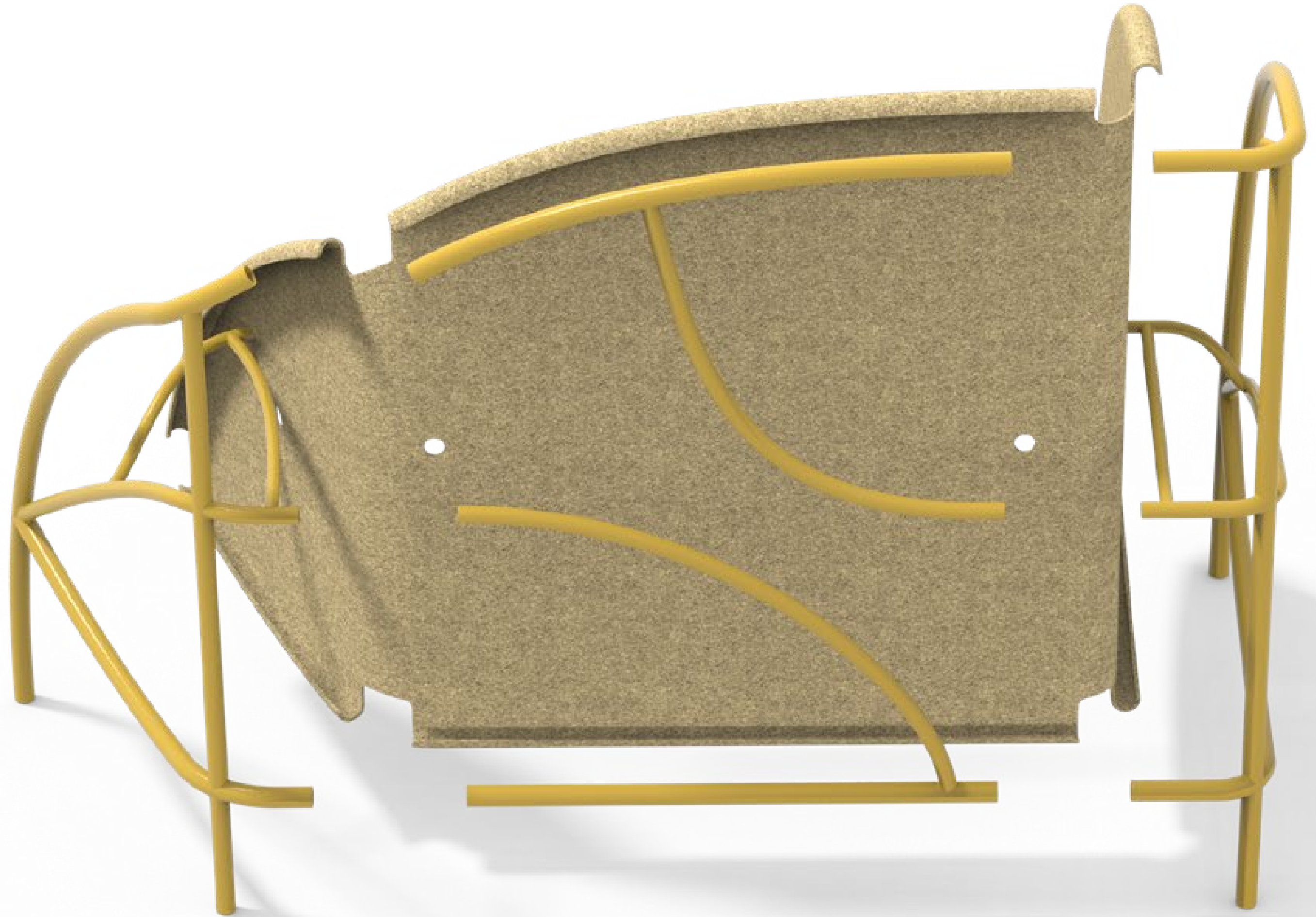
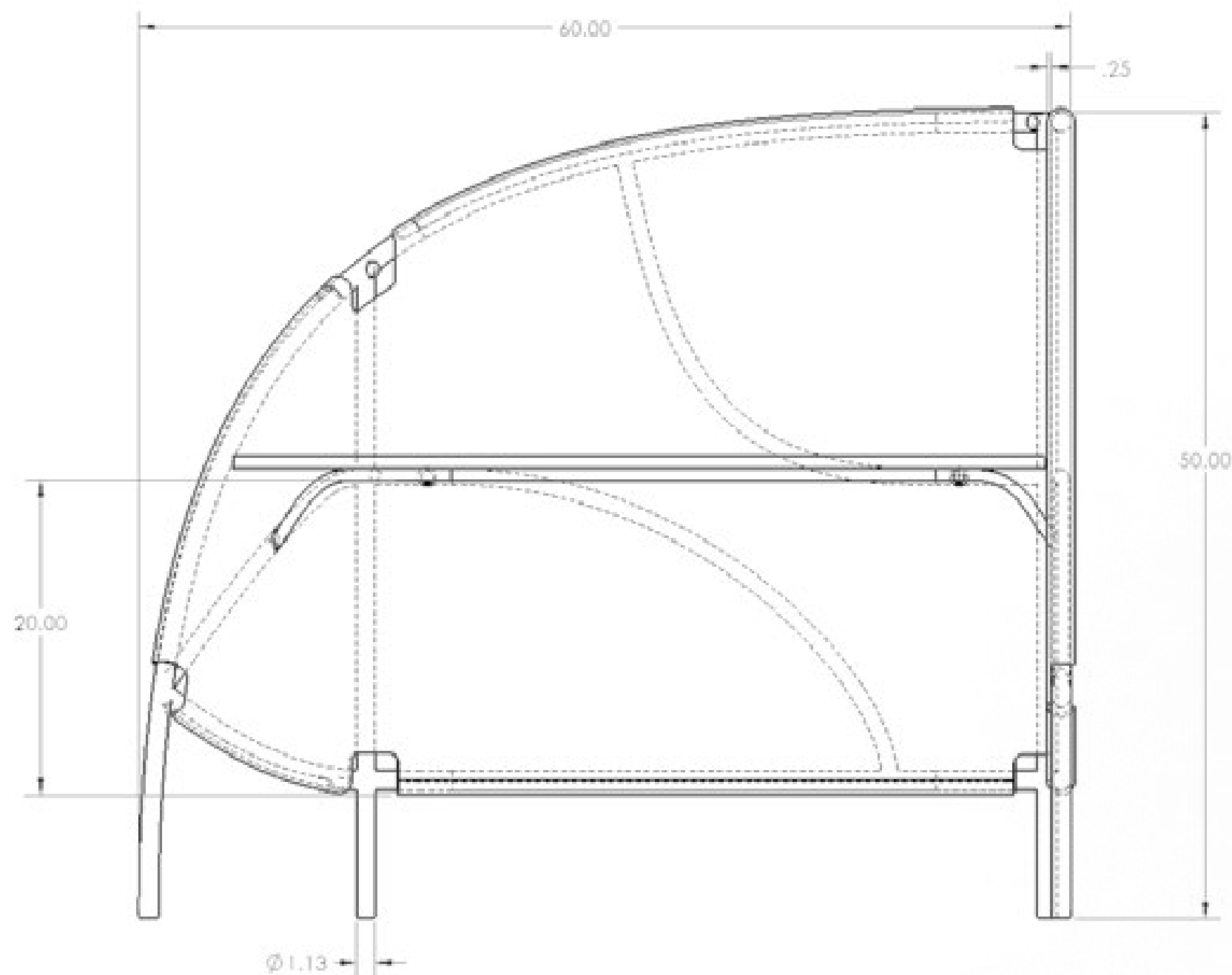


Materials and Manufacturing



Assembly

- Users want separation of space, but don't need extreme privacy for their work-type
- Tube steel assembled like a bedframe
- Dimensions driven by specific demands of graphic design work.



The Solution

- Space to work that **doesn't feel anonymous**
- **No storage needed**, which is just a reminder that this isn't their space
- Natural materials and forms provide **warmth and familiarity**
- The **right amount of privacy**. Enough to separate spaces, but not box in



Cookies
& Cream



Blueberry Pie



Keylime



Lemon Drop



Peach Cobbler

Example Layouts



Focus Pod



Team Zone



icon

Beauty integrated

Project Type	Industrial Design: Materials and Manufacturing
Duration	Two Months
Date	April 2023

Purpose



High-design lighting market often lacking **technology integration**

Brief



Design a **sustainable & sculptural** lamp featuring wireless charging

User



Desires premium lighting with tech and **human factors consideration**

Context & Lifestyle



PRODUCTIVITY

NATURAL

Style & Tech



WIRELESS CHARGING



MATERIAL CONTRAST



NATURAL MATERIALS

Okala

the ecodesign strategy wheel

1 Design Innovation

- Multifunctionality

2 Reduced Material Impacts

- Recycled and bio-materials

3 Manufacturing Innovation

- Ecofriendly glues and finishes

4 Reduced Distr. Impacts

- Packaging optimaztion

5 Reduced Use Impacts

- Electicty draw management

6 System Longevity

- Exchange and refurbishment

7 Transitional Systems

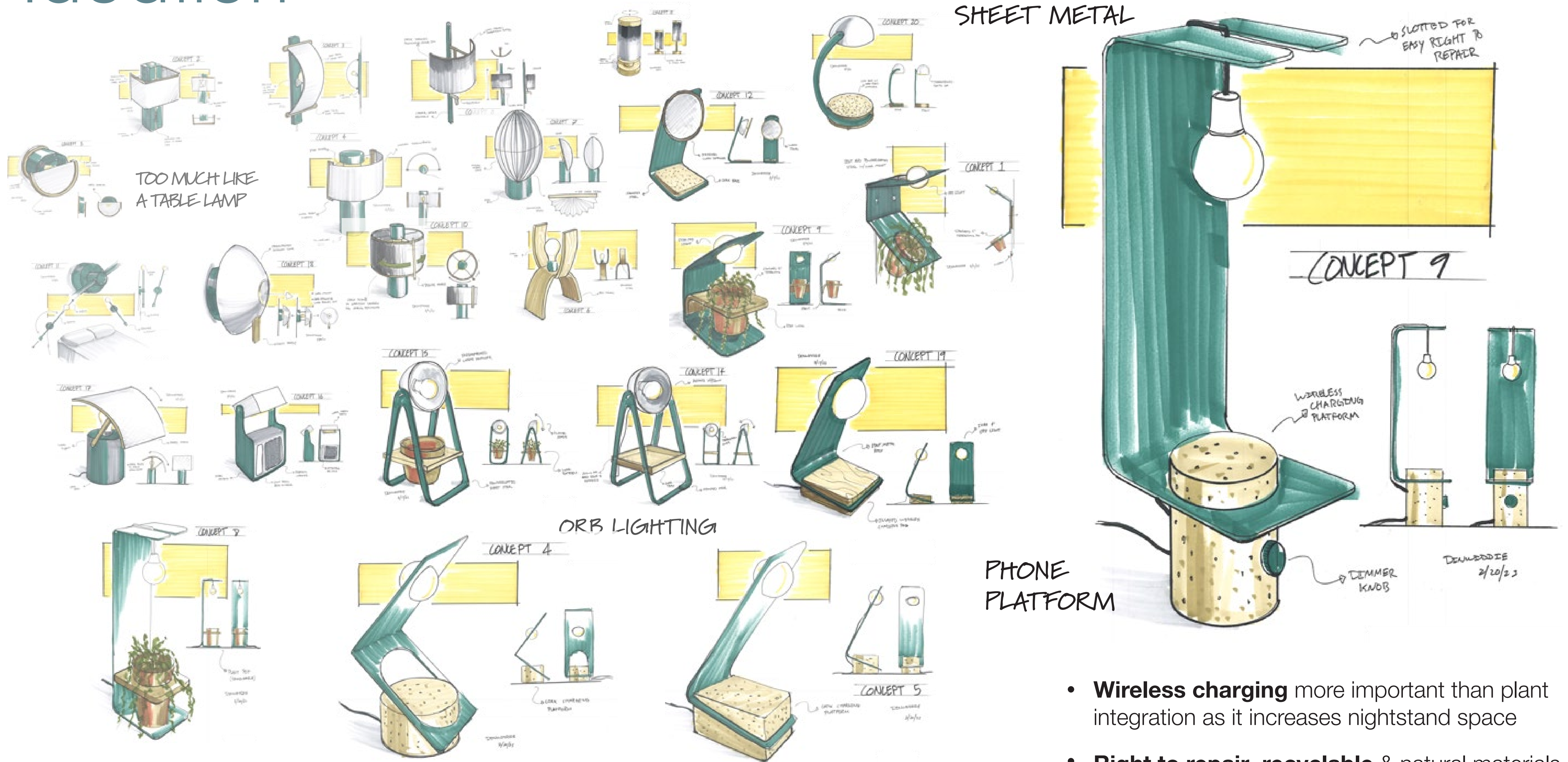
- Upgradeable components

8 Optomized End-of-Life

- All parts recycleable



Ideation



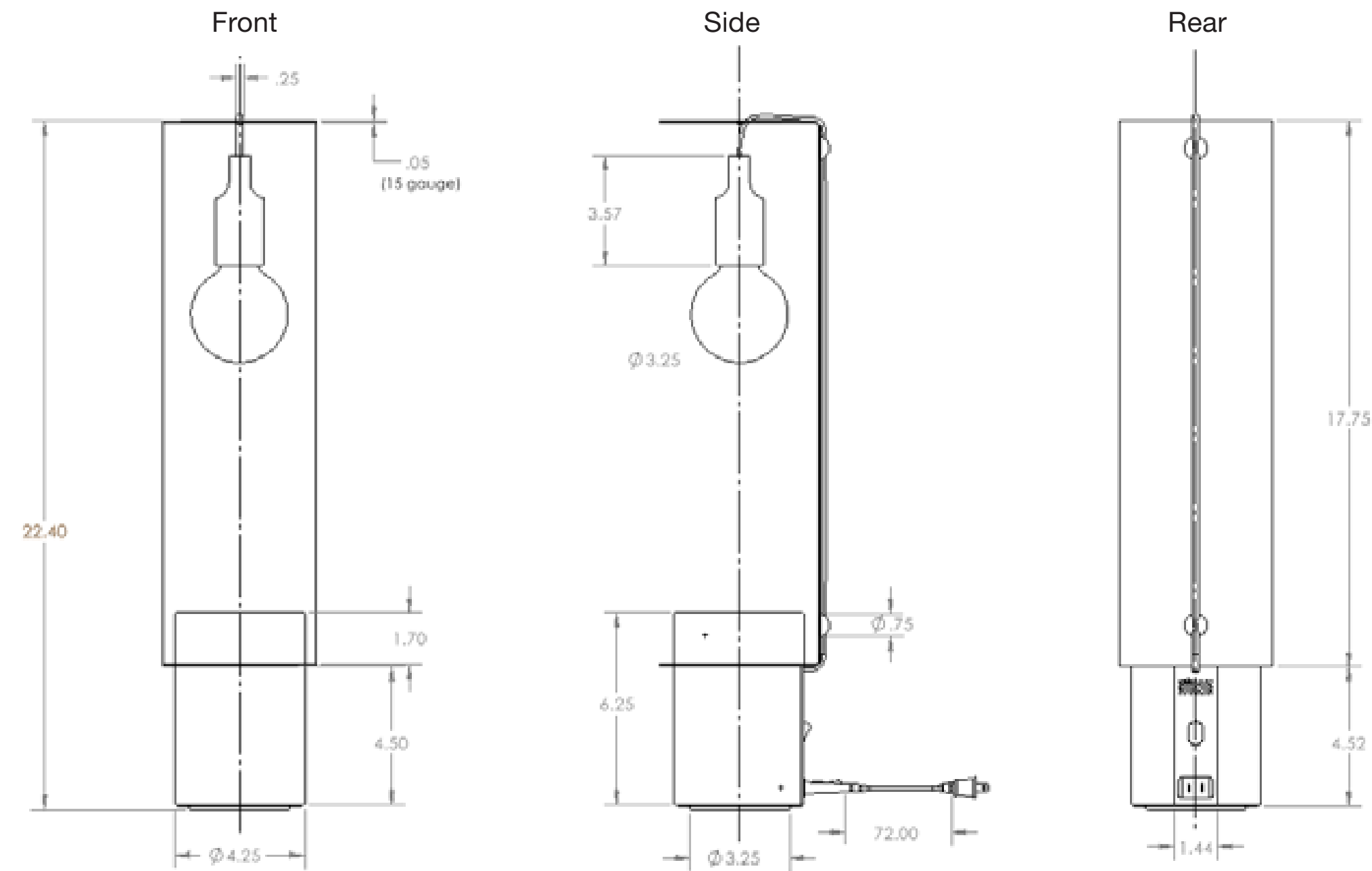
- **Wireless charging** more important than plant integration as it increases nightstand space
- **Right to repair, recyclable** & natural materials

A black and white photograph showing a person's hands in a plaid shirt operating a CNC machine. The machine's drill bit is positioned to drill a hole into a cylindrical metal part that is held steady on a worktable. The background is slightly blurred, showing other industrial equipment.

The Build

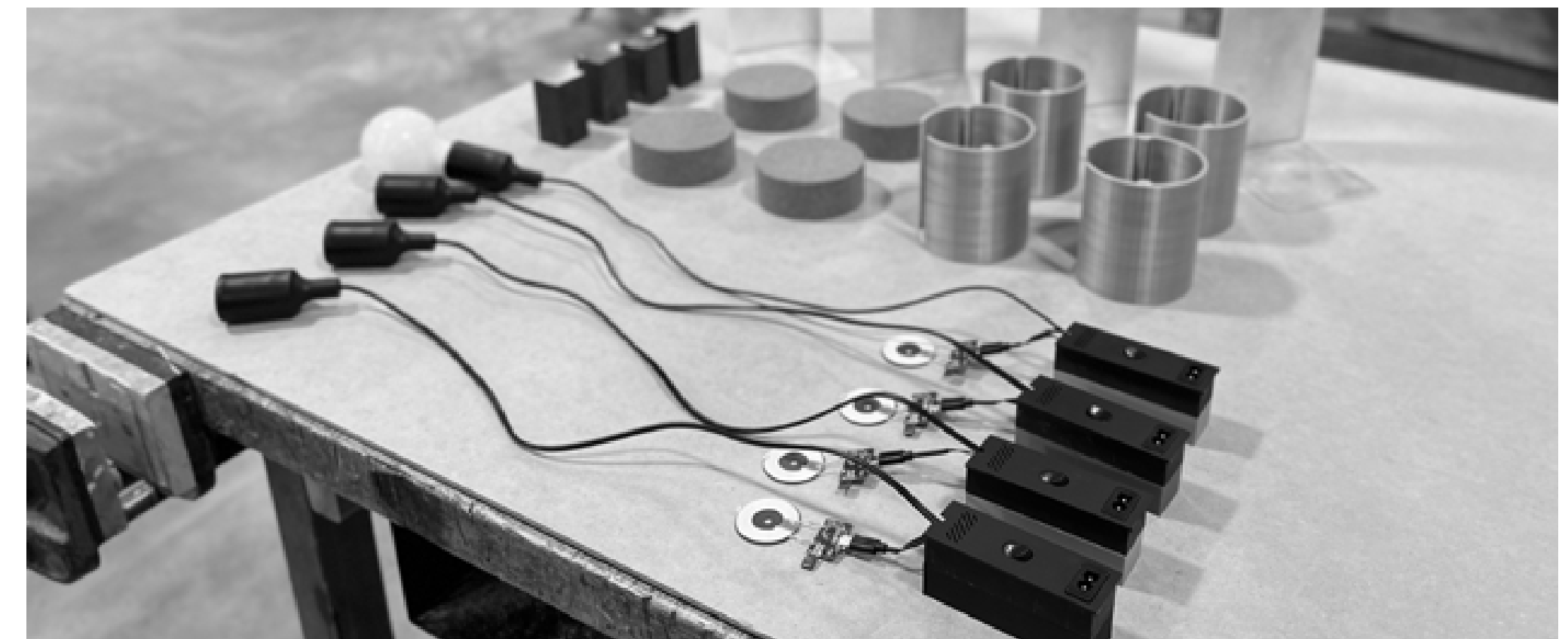
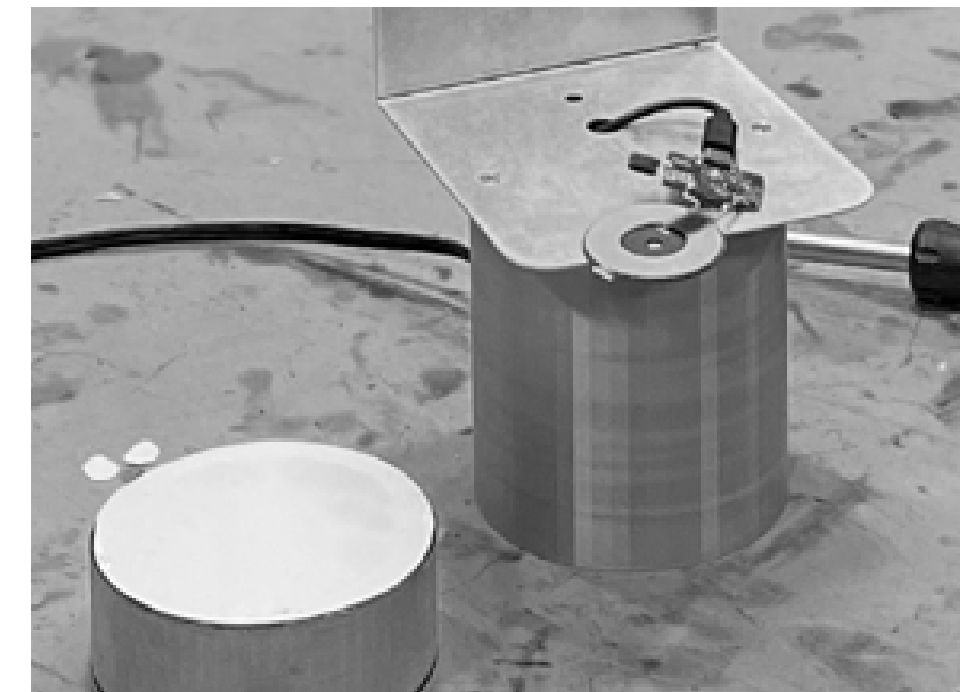
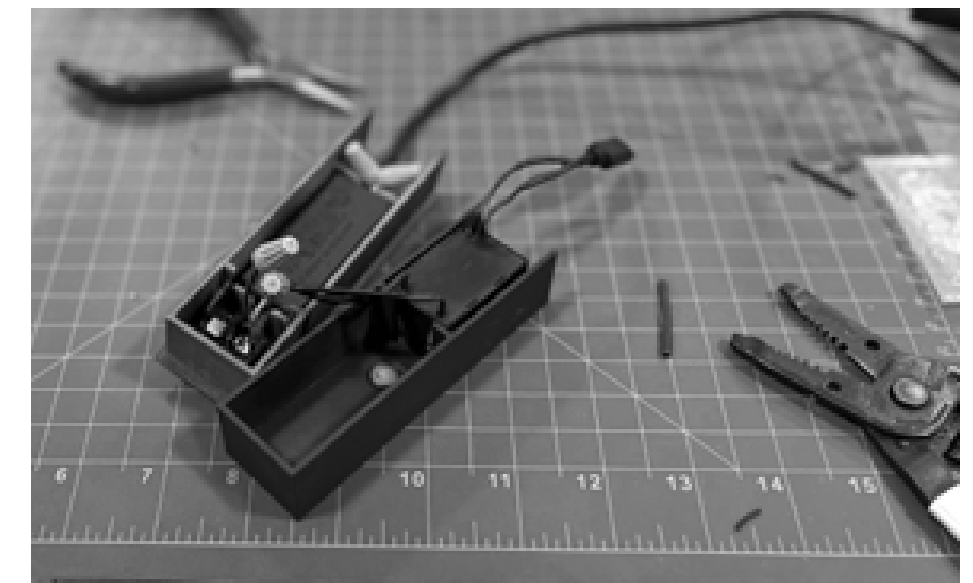
Manufacture 4 *shelf-ready* lamps using **mass-manufacturing processes**

Prototyping & Fabrication



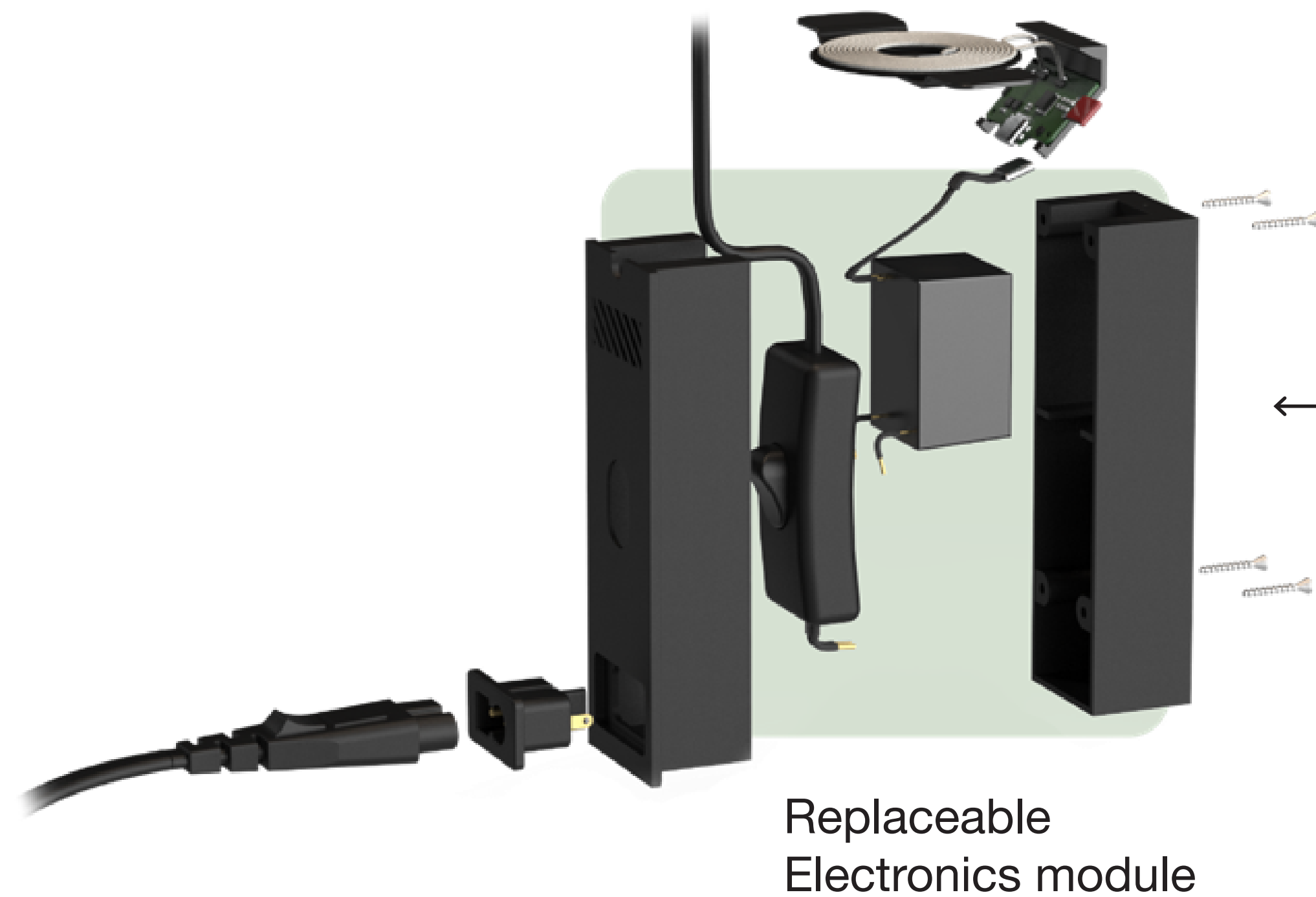
Technical Considerations

- **Removed dimmer** because it felt tacked on. The lamp didn't *need* that feature in order to be the design solution. Wireless charging was the main feature solution
- Sheet stock usage designed and manufactured conducive to **CNC forming**
- **3D printed** body mechanically designed as stand-in for material extrusion



Key Technologies

- Stylistically integrated **wireless charging** platform
- Designed for **right to repair** disassembly for repair and recycling



Powdercoated aluminum

Frosted orb bulb

Wireless charger

Aluminum housing

Cork veneer

Counter weight

Bottom panel and riser



A nightstand lamp for **mass production**. Includes wireless charging, a striking form, correct light levels, and **appeals to target**





 icon



Bodem

Composting made modern.

This one of a kind composting system fills the needs of hobbyest gardeners with small families looking to repurpose food waste. It is attractive enough for use on a patio for daily use convenience.

Project Type	Industrial Design: Materials and Manufacturing
Duration	2 weeks
Date	April, 2023

User



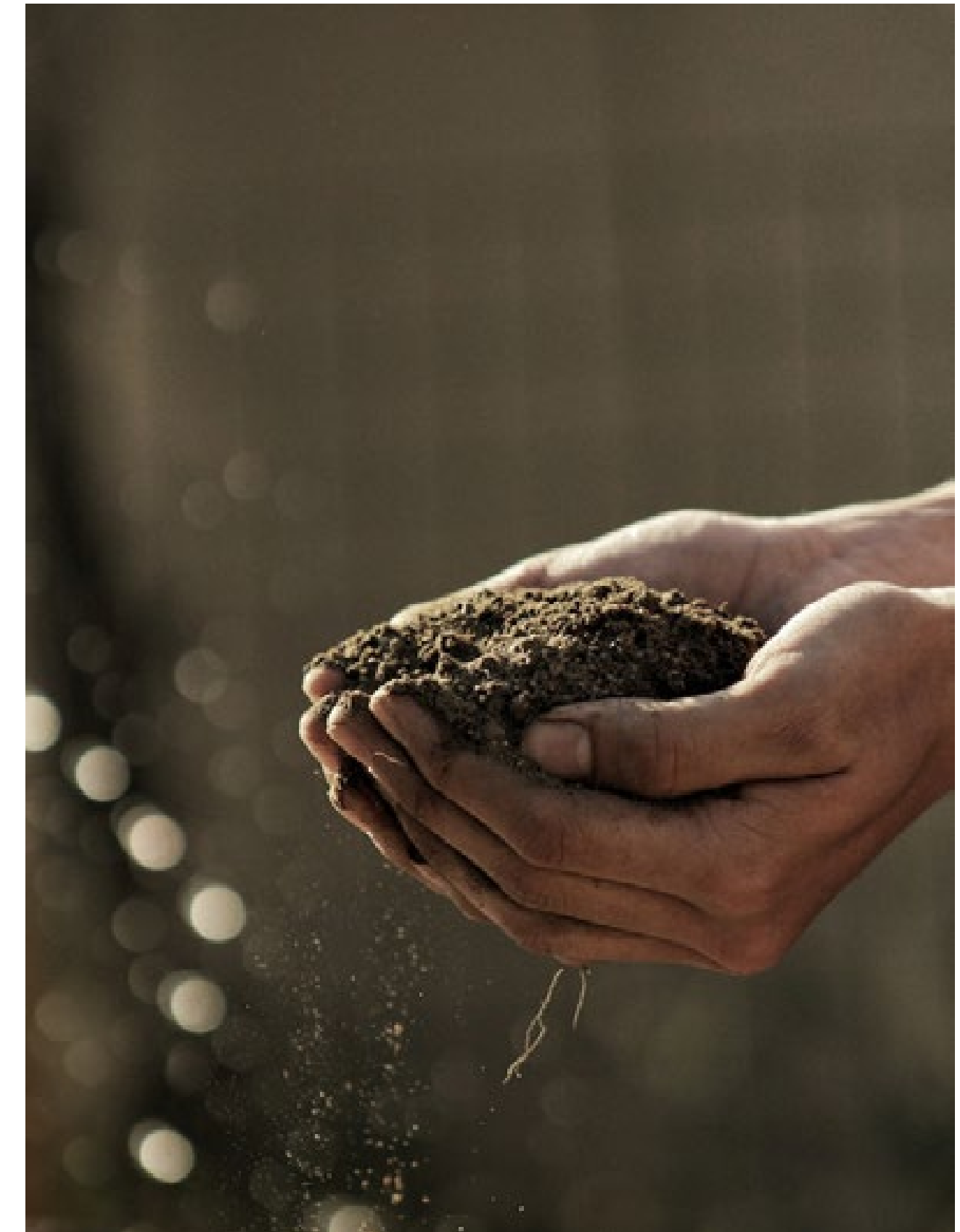
59% of gardens are in the **suburban backyards** of hobbyest with families

Problem



33% of all food produced is **wasted** each year, over **2.5 billion tons**

Solution



Composting puts food waste to use, reducing landfill and climate impact

Composting



| Greens |



| Browns |

How

1:4 greens to browns ratio allows microbes from food scraps to break down the organic waste in only **2-4 weeks**

Why

Natural fertilizer for healthier plants. **Repurposes food scraps**, less landfill waste and sequesters CO₂ in soil which **reduces emissions**

Context

PATIO



LIMITED SPACE

Current Market



PASSIVE AND SLOW



TOO LARGE

NOT TARGET USER STYLE



Look & Feel

FRESH
AND FUN



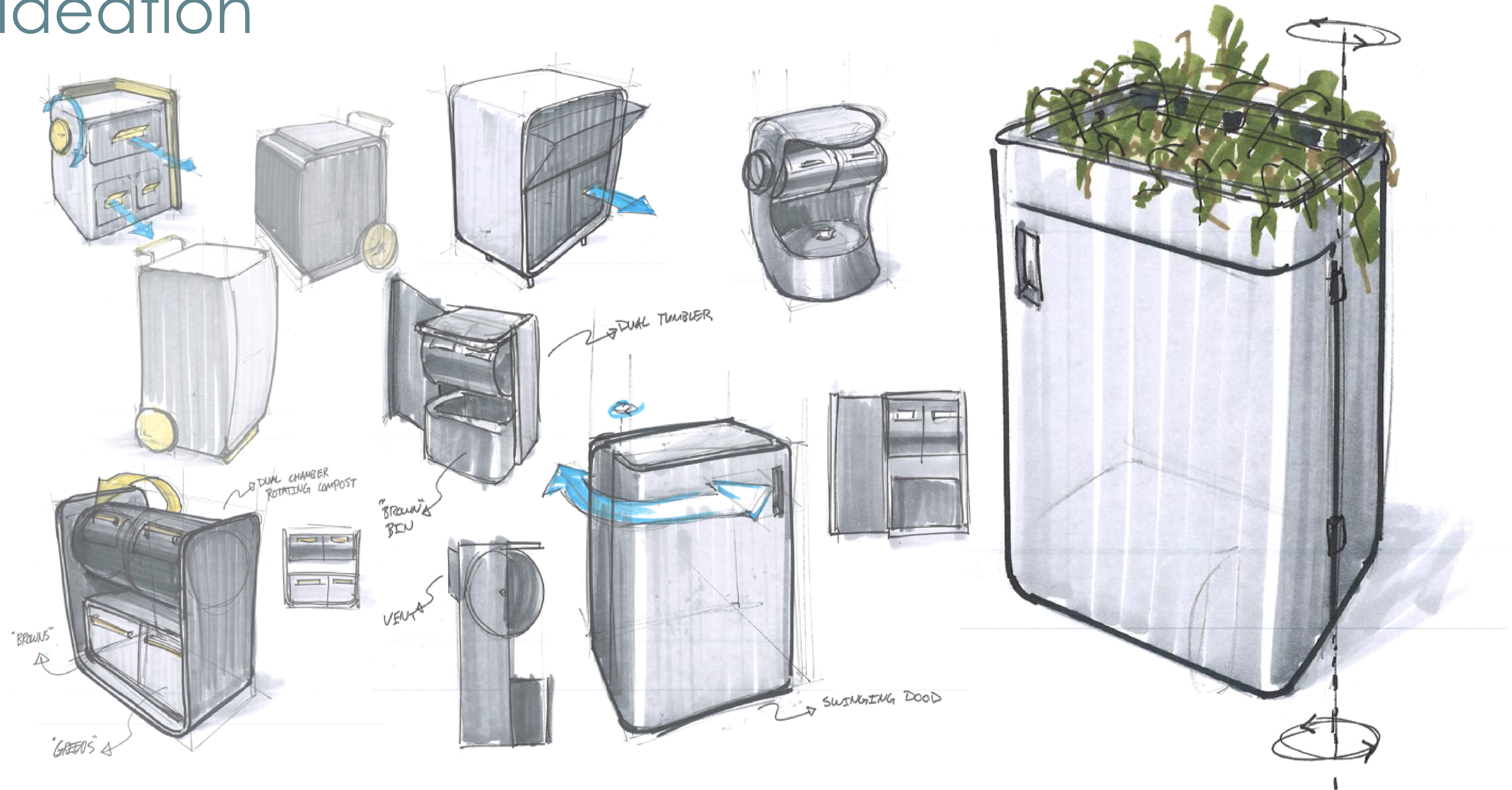
DYNAMIC

PLANTER

MINIMALIST
FORM

STONE FINISH
ROTOMOLD

Ideation



Modeling

How to Use

- 1) **Fill mobile bottom bin with yard waste** or shredded paper
- 2) Add food scraps in roughly **1:4 ratio of greens to browns** to one side
- 3) Rotate the **dual-chamber** tumbler to mix
- 4) Once full, seal and begin filling chamber two
- 5) Repeat **alternating sides for rapid composting**

Technical considerations

- **Rotomolded plastic** construction
- 4.5 gallon capacity per side dual-chamber prevents bucket overfill
- Enclosed for heat insulation, speeding compost process
- 10 gallon bin on wheels for **storing pre-use bulk yard waste**





Bodem
Composting made modern.



Wiggle Stool

Dynamic. Sensory. Inviting.

A study in organic forms functioning within a defined system.
Designed for a tranquil yet fun work area and living space

Project Type

Furniture design: Stool

Duration

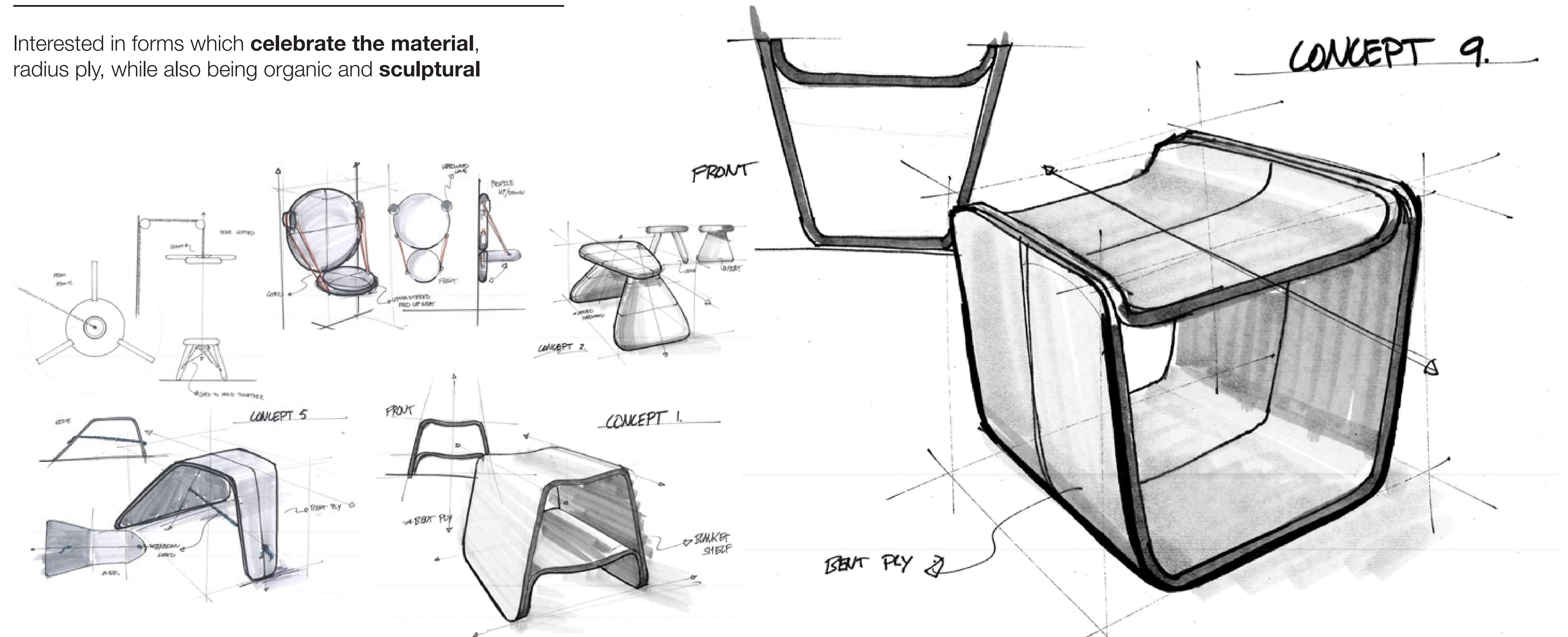
4 weeks

Date

February 2023

Ideation

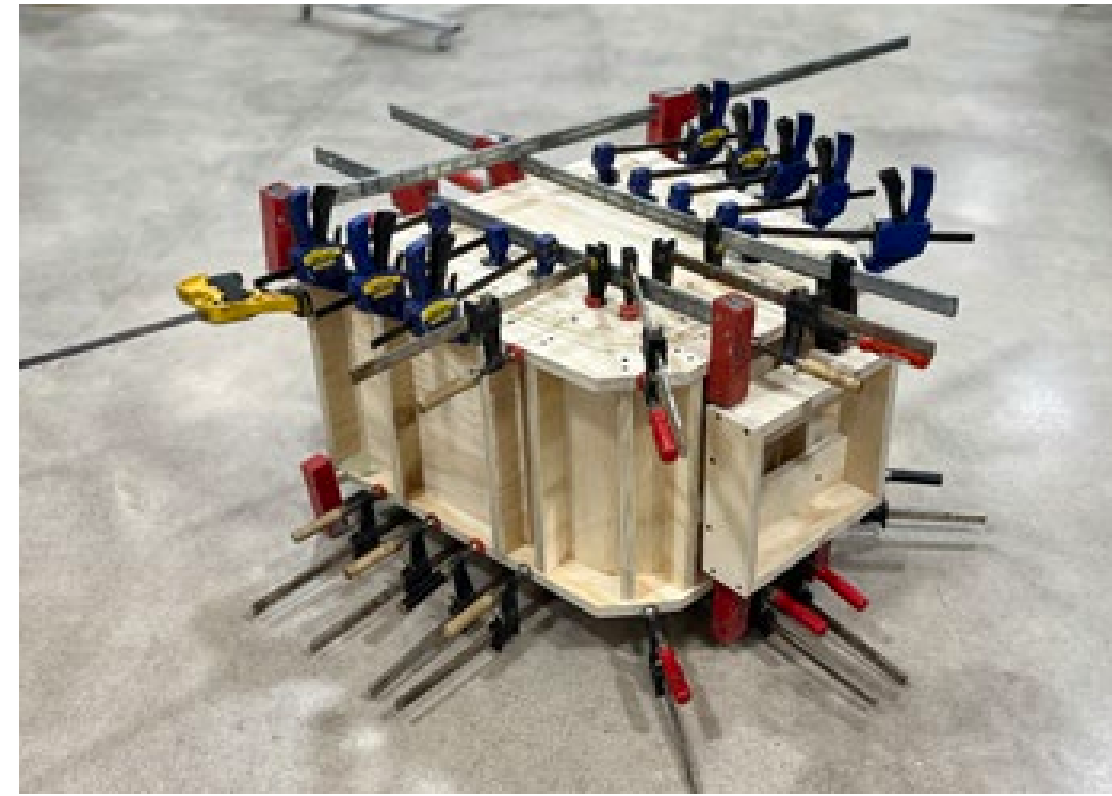
Interested in forms which **celebrate the material**,
radius ply, while also being organic and **sculptural**



Interested in the idea of a stool crafted entirely of **two parts**

Construction

- Scale cardboard models provided construction and material feedback
- **Two part construction** creates a minimalist, functional, and captivating form
- Manufacturable using **bend lamination** with Radius Ply



Custom Built two-part Mold



A man with a beard, wearing a striped shirt and jeans, is sitting on a yellow Wobble stool at a wooden desk. He is looking at a laptop and a monitor. The monitor displays the text "DESIGN IS". The room has a large window with a view of trees, a wooden nightstand with a lamp, and a bed with a yellow blanket. The text "Wiggle Stool" is overlaid on the image in a large, white, sans-serif font, and "Dynamic. Sensory. Inviting." is overlaid below it in a smaller, blue, sans-serif font.

Wiggle Stool

Dynamic. Sensory. Inviting.



Wilson Bench

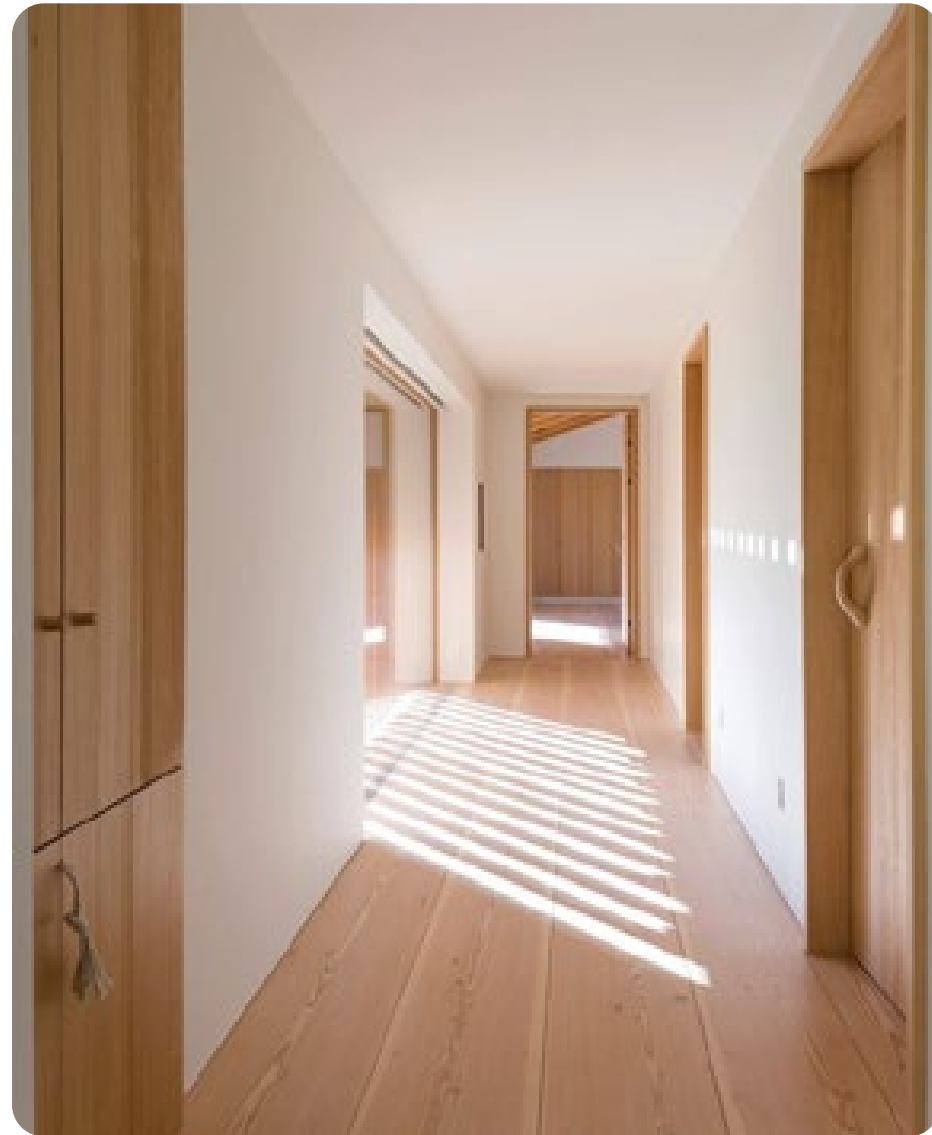
Shaker Heritage. Modern Form

A fresh take on traditional Shaker furniture, forms, materials, and techniques. Asking *what if* in 2017

Project Type	Self-led
Inspiration	Shaker and Danish furniture
Date	2017

Inspiration

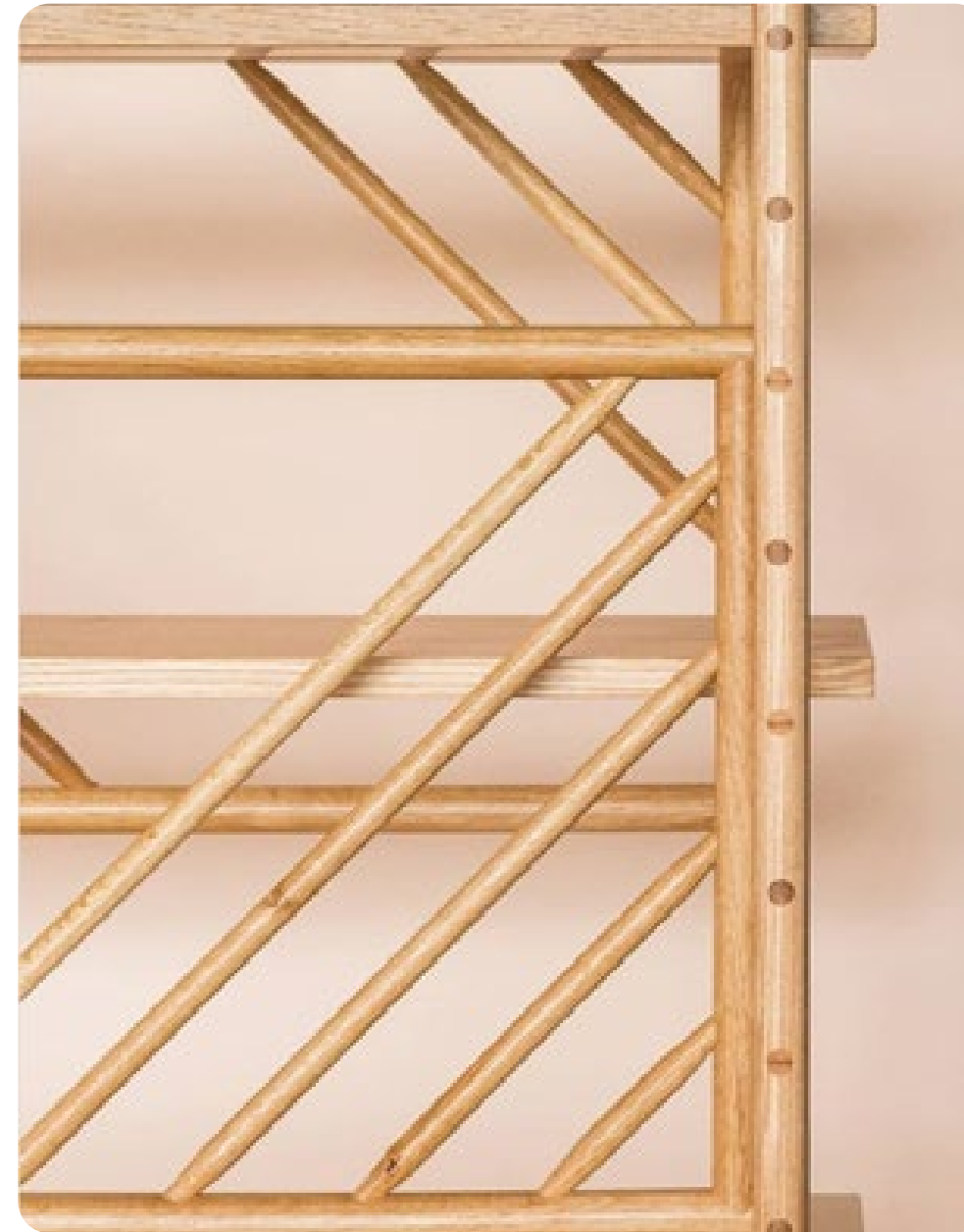
REDUCTIVE
& MODERN



TRADITIONAL
SHAKER CHERRY



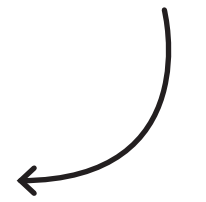
WEDGED POST AND RUNG



SHAKER FURNITURE



UNDER-CUT
DETAIL



The Build



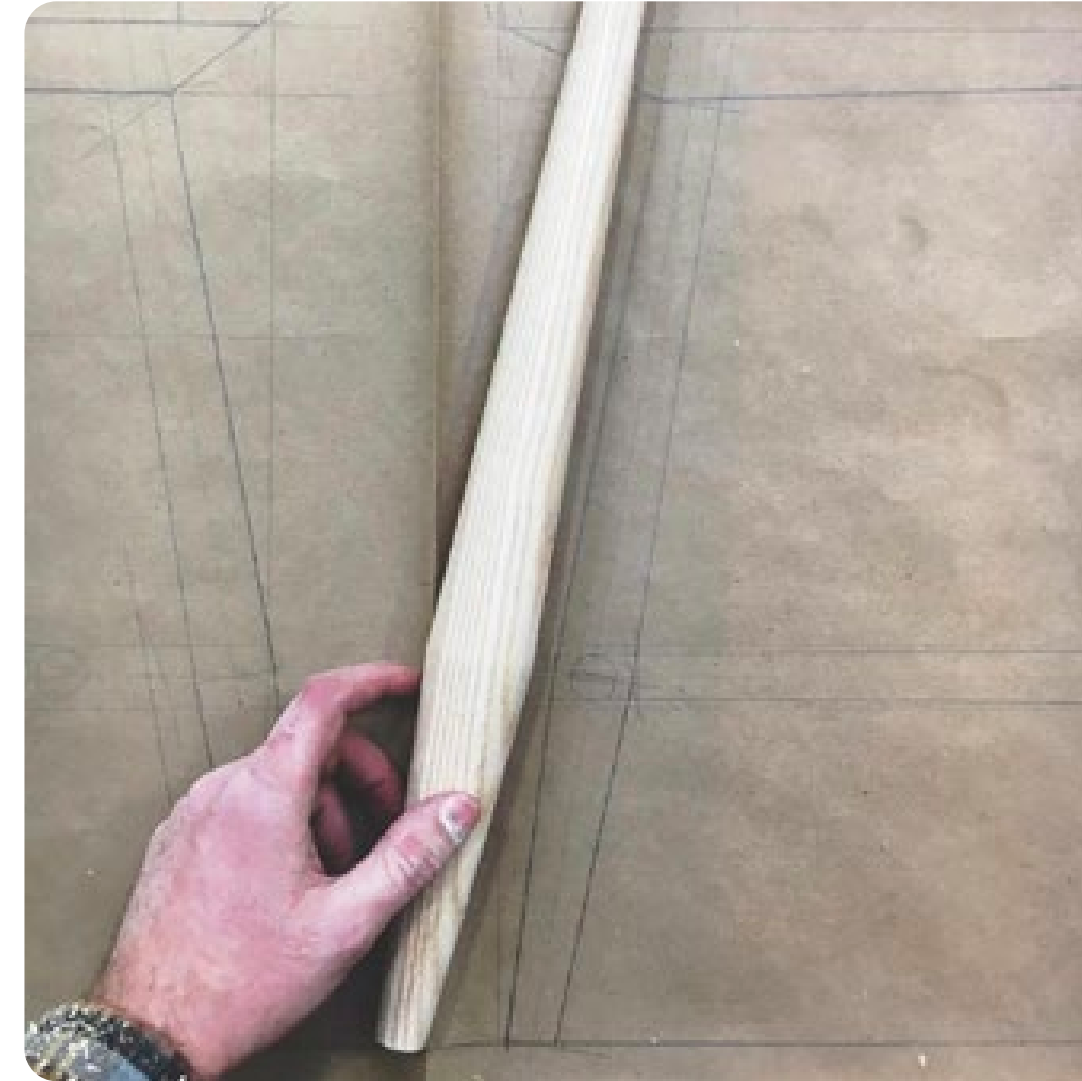
Material Selection

- Cherry used as preferred species in Shaker furniture



Layout and optimization

- Finding best grain orientation for strength and beauty



Prototyping components

- Full scale drawing and prototyping for final dimension check

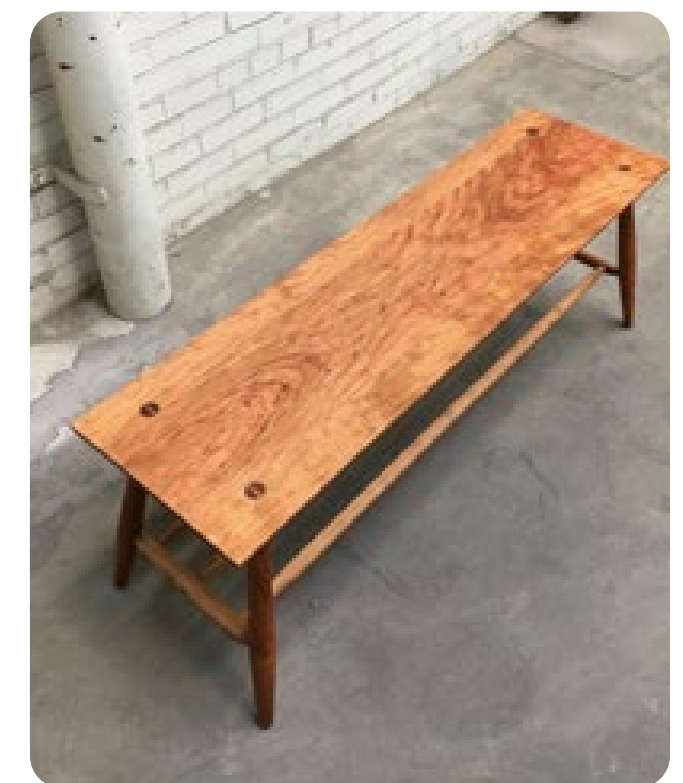
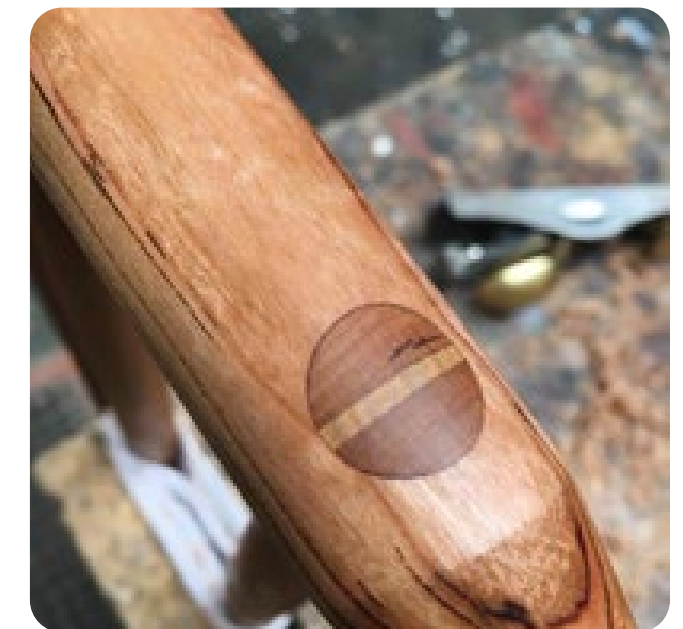


The build

- Traditional Shaker “post and rung” construction

Wilson Bench

- Modern take on traditional shaker furniture
- Elegant and sturdy post and rung construction
- Shelf for anything the room needs





Bowline Dresser

A study in breathing visual lightness into a heavy piece through contrast and form

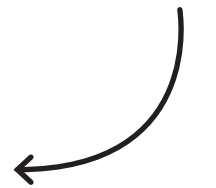
Project Type	Self-led
Inspiration	Danish materials and finishes
Date	January, 2021

Inspiration

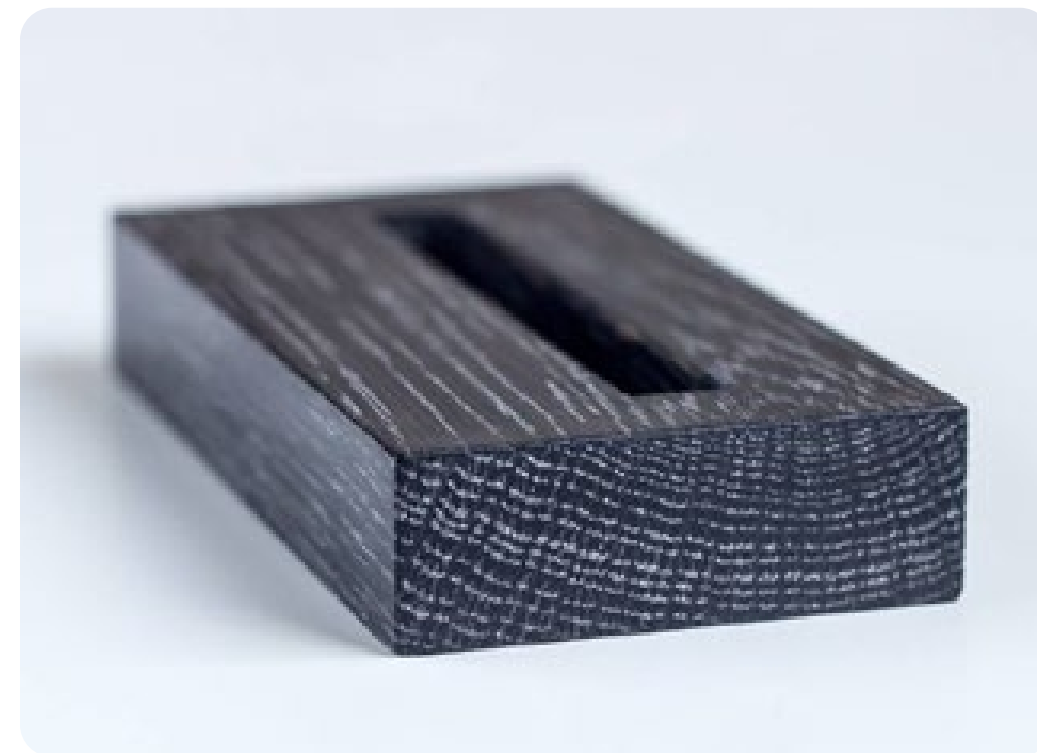
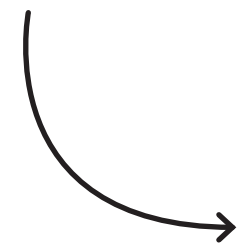
SOLID WOOD BODY



LIGHT STANCE



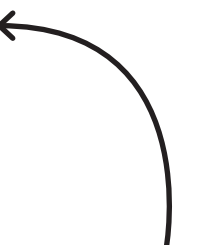
ROUNDED FORMS



EBONIZED OAK



HIGH CONTRAST



Bowline Dresser

- Traditional Danish finish
- White and ebonized oak
- Elegant design



Portfolio 2025

Any questions?

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