D'VAN HOWARD

INDUSTRIAL DESIGN 2019

D'VAN HOWARD

7221 Meadow Ridge Drive
Louisville, KY
+1.502.298.4418
dvanhoward@gmail.com
dvanhoward.com

EDUCATION

University of Cincinnati, DAAP

BS in Industrial Design
Class of 2020

Tama Art University

Product Design Exchange Student
Tokyo, Japan
Fall 2018

University of Kentucky

BS in Mechanical Engineering
Class of 2014

Pamplona Learning Spanish Institute

Renewable Energies Study Abroad
Pamplona, Navarra, Spain
Summer 2013

EXPERIENCE

Cramer Inc | Kansas City, MO
Design Co-op (Spring 2019)

Joined small R&D team developing upcoming chair lines. Participating in planning, concepting, CAD development, and testing of chairs.

DePuy Synthes (Johnson&Johnson) | Raynham, MA
Design Co-op (Summer 2018)

Worked with team on presentation illustrations, user research, and concept development. Cintiq sketching, UI/UX, prototyping concepts. Lead design of personal project and presented concept to engineers.

Ethicon Endo-Surgery (Johnson&Johnson) | Blue Ash, OH
Design Co-op (Fall 2017)

Supporting designers with concept development and research implementation. Sketching, ideating, Keyshot, InDesign, prototyping concepts. Presenting ideas in small meetings. Working with other J&J employees on various projects.

Nottingham Spirk | Cleveland, OH
Design Intern (Spring 2017)

Sketching, ideating, prototyping concepts. Presenting ideas in small meetings. Working with shop workers to develop prototypes.

NACCO Materials Handling Group | Greenville, NC
Design Engineer (Dec 2014 - Aug 2015)

Constructing and modifying component models of forklift trucks for specialty batch orders. Provided engineering support to manufacturing line.

Toyota Motor Manufacturing Kentucky | Georgetown, KY
Paint Specialist Co-op (Summer 2012)

Redesigned a prototype moon-roof installation component on manufacturing line. Designed and began development on new dolly to reduce strength required to push car frame.

SKILLS

Soft Skills - Analytical Thinking, Strategy, Empathy, User Experience, Mechanical Prototyping, Story Telling, Human Centered Design, Leadership, Ideation, Scrum Planning, Spanish (beginner proficiency), Japanese (beginner proficiency), Systems Design, Hindsight Adaptability

Software - Solidworks, Rhinocerous, Fusion 360, KeyShot, Sketchbook Pro, Procreate, Microsoft Office (Word, PowerPoint, Excel), HTML, Adobe Suite (Photoshop, Illustrator, InDesign)

Hard Digital Skills - CAD, Parametric Modeling, Surface Modeling, Rapid Prototyping, 3D Printing (FDM & SLA), Laser Cutting, CNC Machining, 3D Rendering, Digital Sketching, Photo Editing, UI Design

Hard Skills - Hand Sketching, Mechanical Prototyping, Woodshop, Model Making, Soldering, Hand Sewing

INVOLVEMENT

Design For America at UC
Team Lead / Studio Lead
2016 - 2018

UK Habitat For Humanity
Club President
2013 - 2014

UC Honors Program
2015 - Present

UC Dean's List
2015 - Present

LIKES

Problem Solving, Sci-Fi, Podcasts, Ultimate Frisbee, Learning new skills, 3D Printing, Pizza Making, Craft beer, Food, Superheroes, Board games, Bowling, Cooking, Hot sauces

about me

I've always been passionate about helping, learning, and making. I followed the engineering route until I discovered Industrial Design, and now I'm not looking back.

I believe that it's where design meets engineering, that true innovation can be discovered.

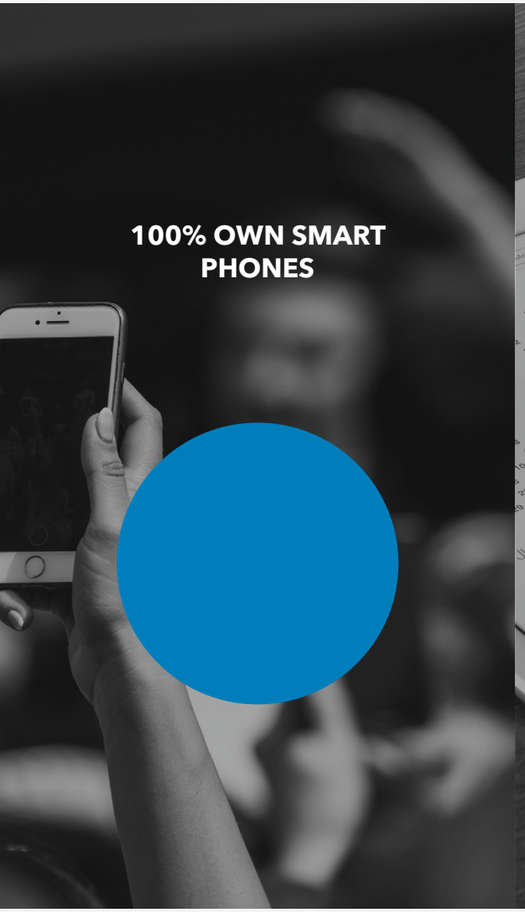
Pendulumen

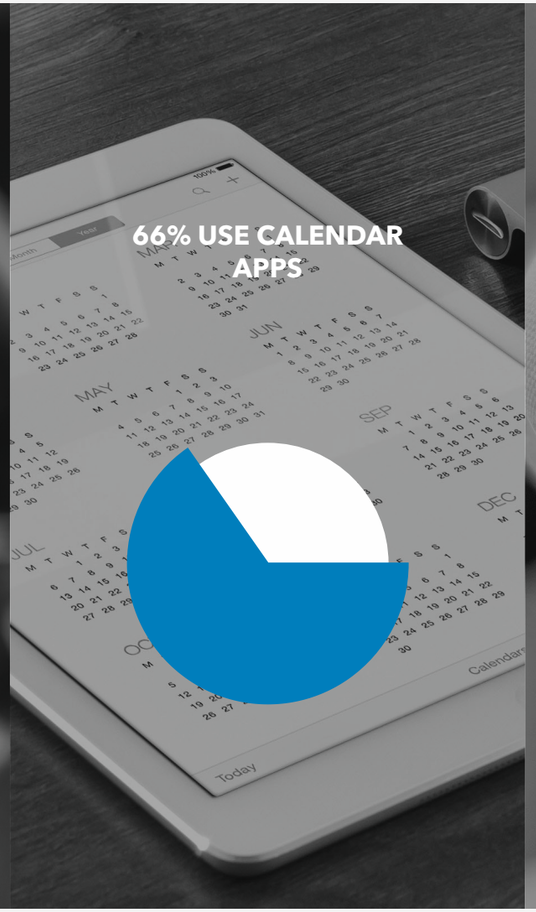
Modernizing Traditional Elements

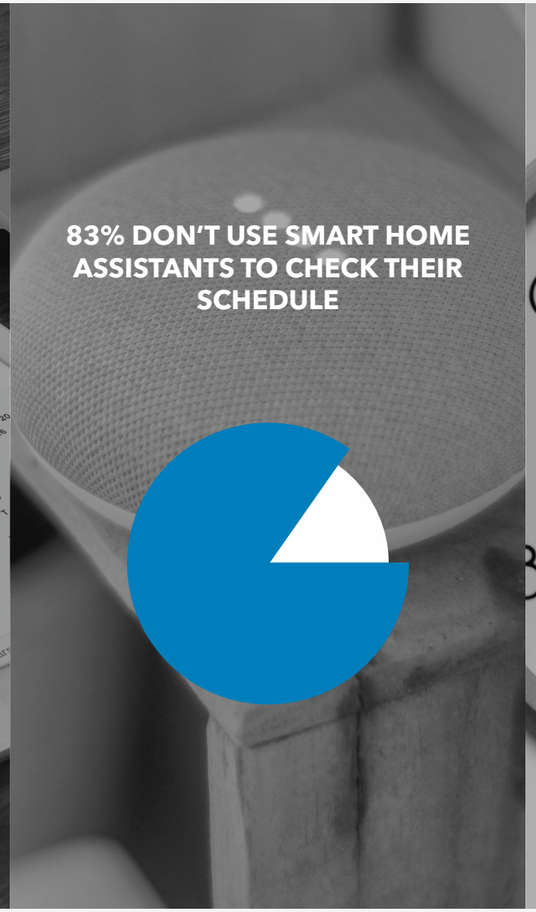
redefining tradition

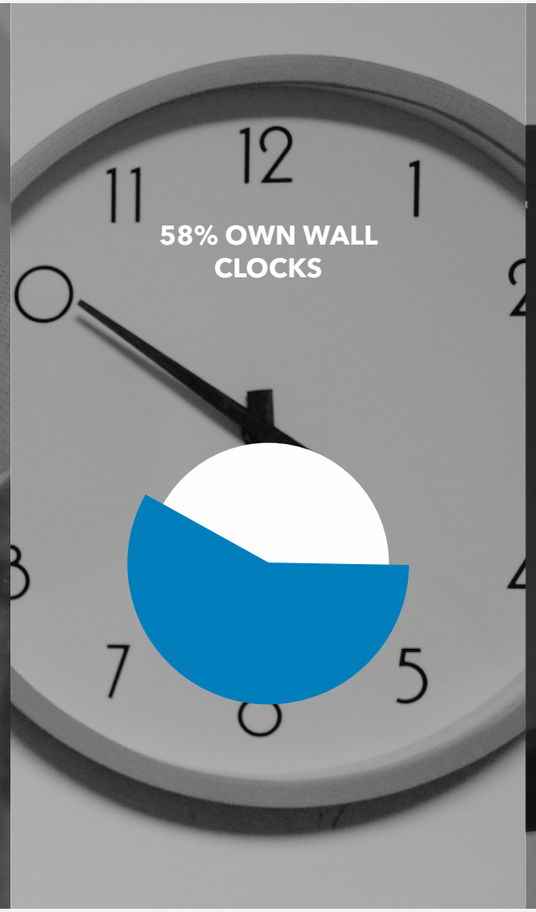
The Grandfather Clock lost it's place in the home because of advancing time keeping technology. Less bulk, less adjustment, more functions.

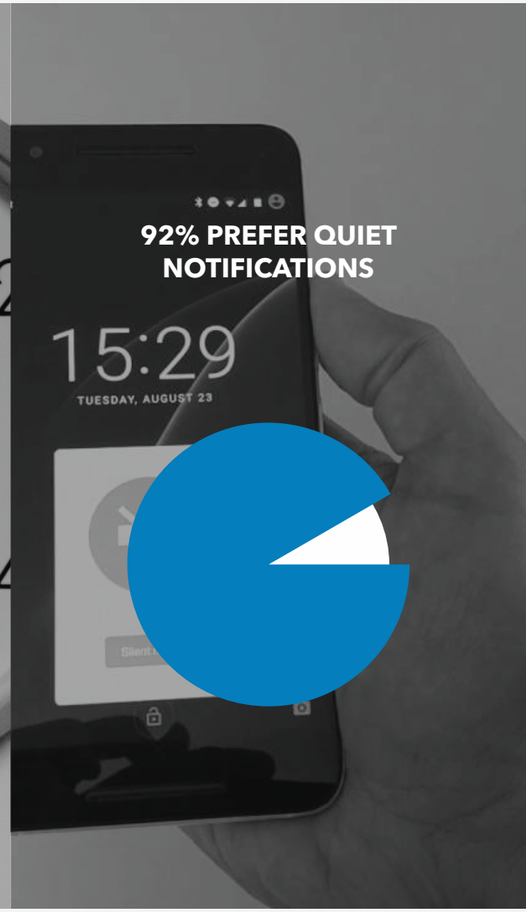
To update the clock, I examined the current clock and technology space, and how technology is changing the way we interact with our home.





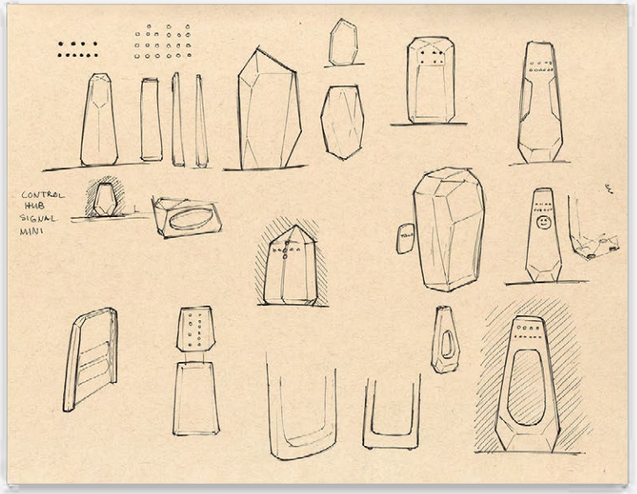


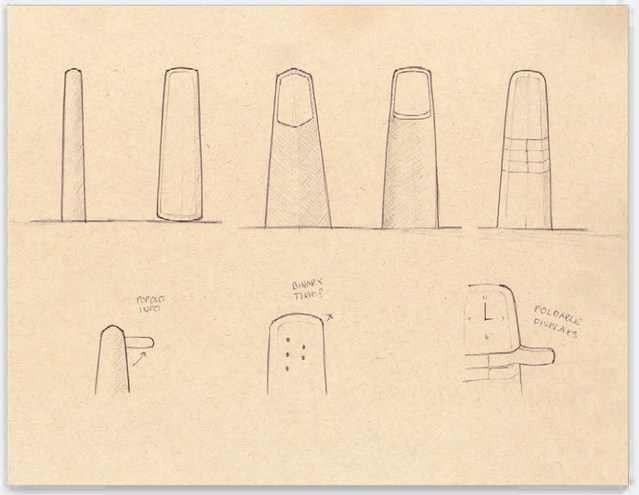


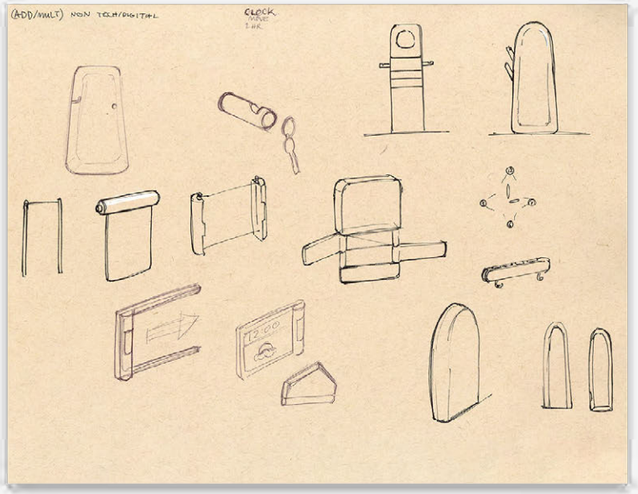


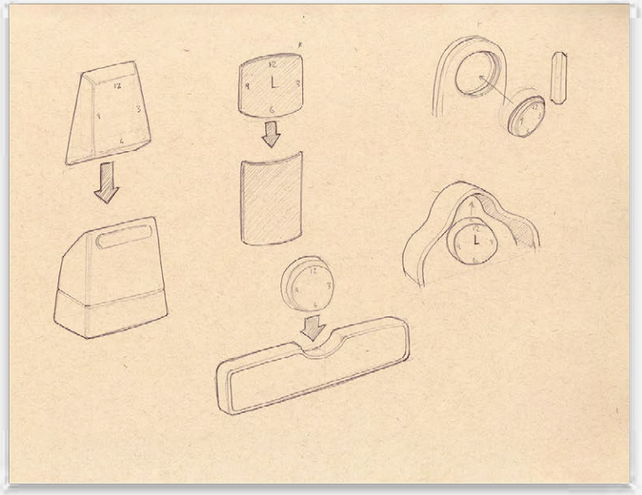
research

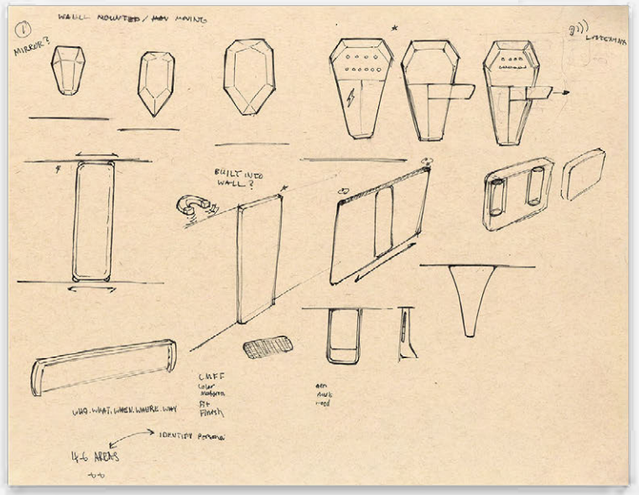
To inform the direction and decisions about the design and function, I backed up my design choices with research

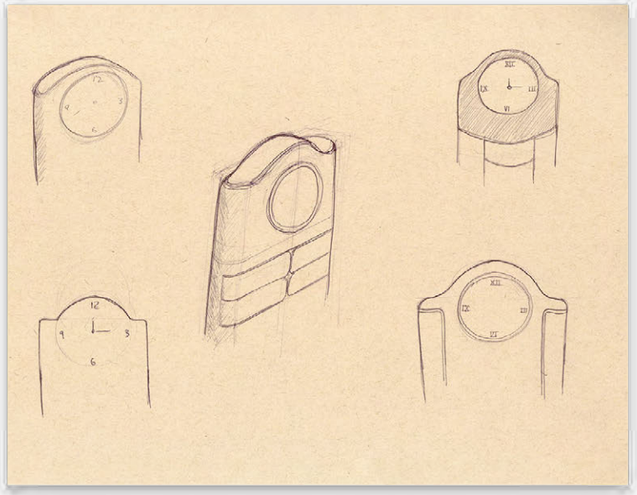






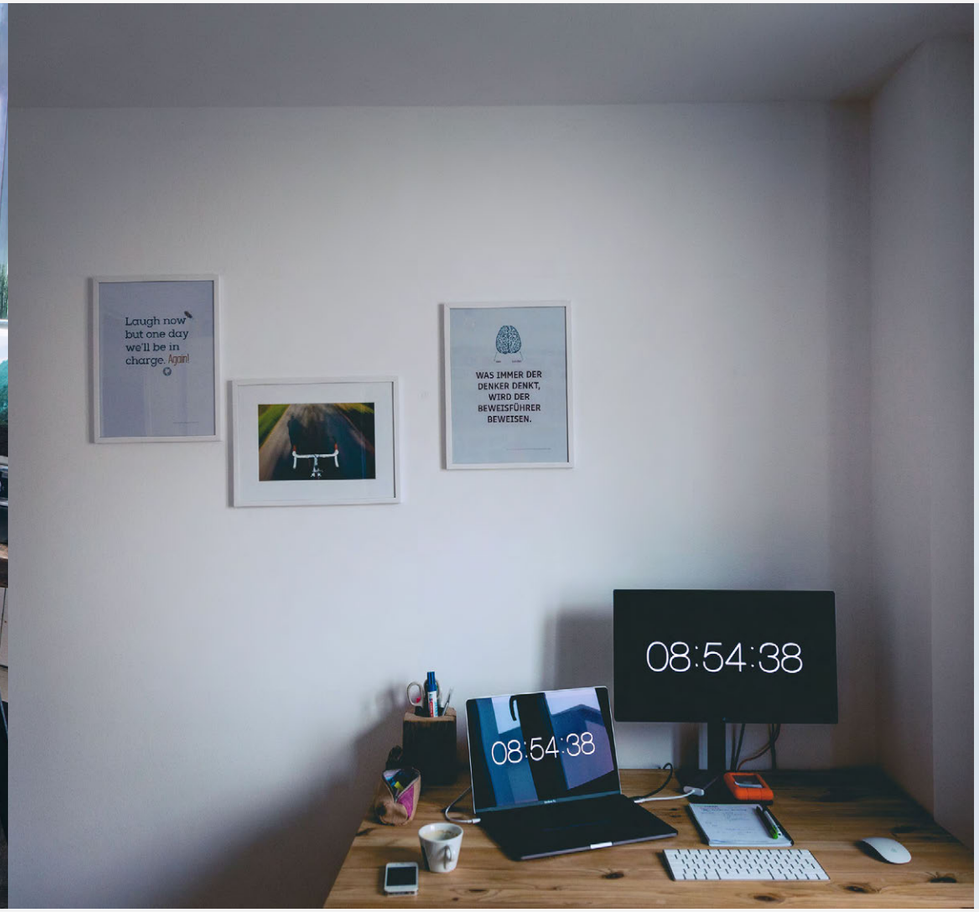






brainstorm sketches

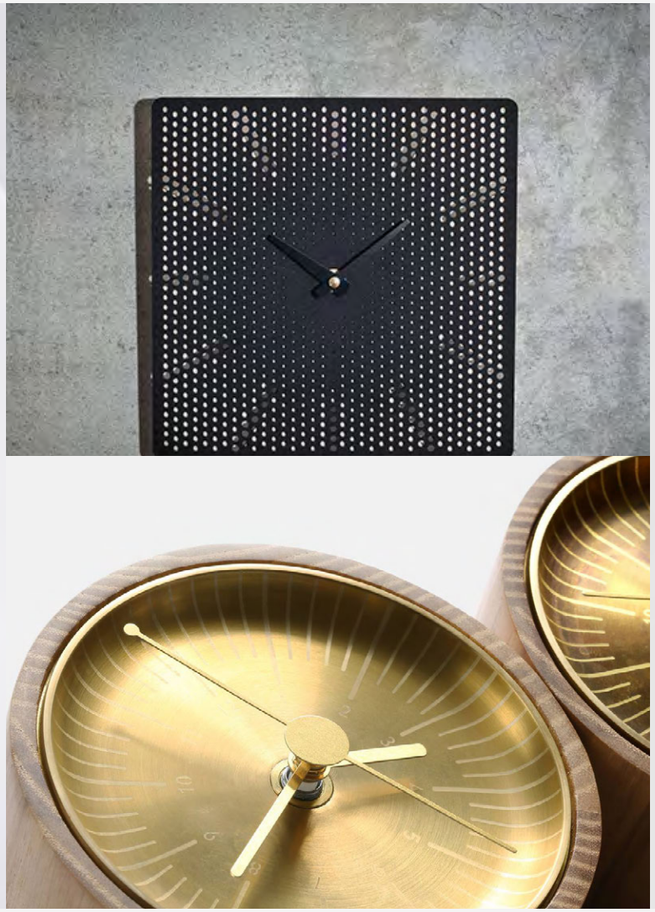
Using the research I brainstormed on modern functions and technology that could rejuvenate the grandfather clock



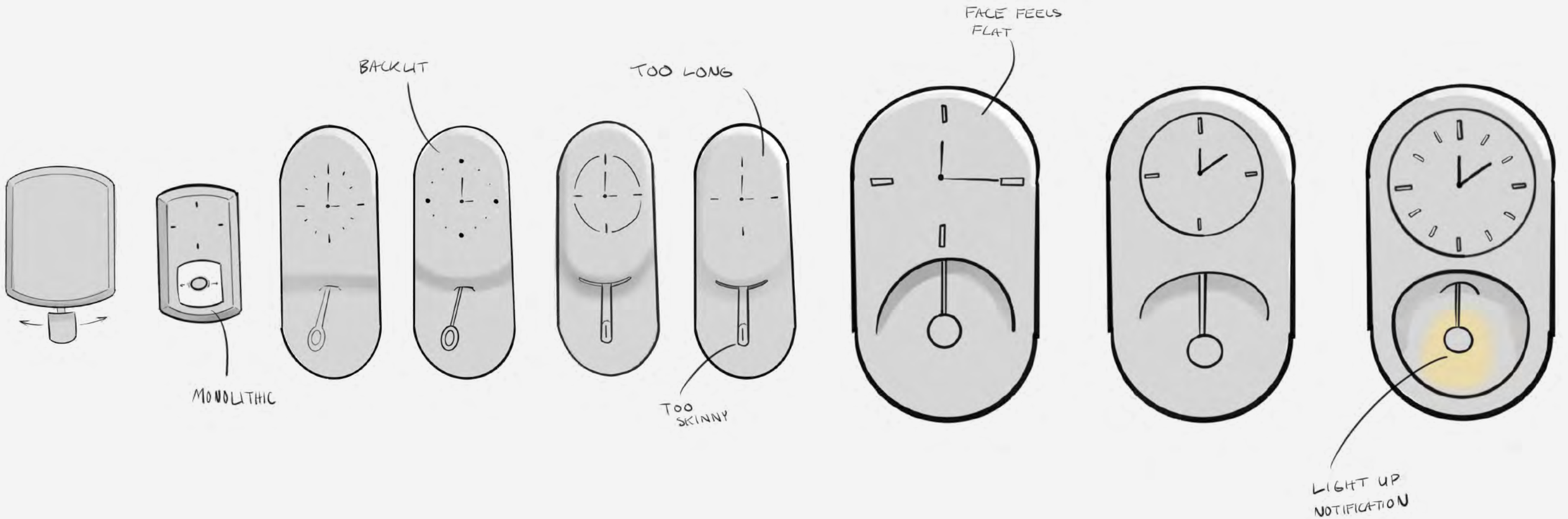
pivot

Through research and observation it became apparent that the grandfather clock would not fit in the current workspace of users

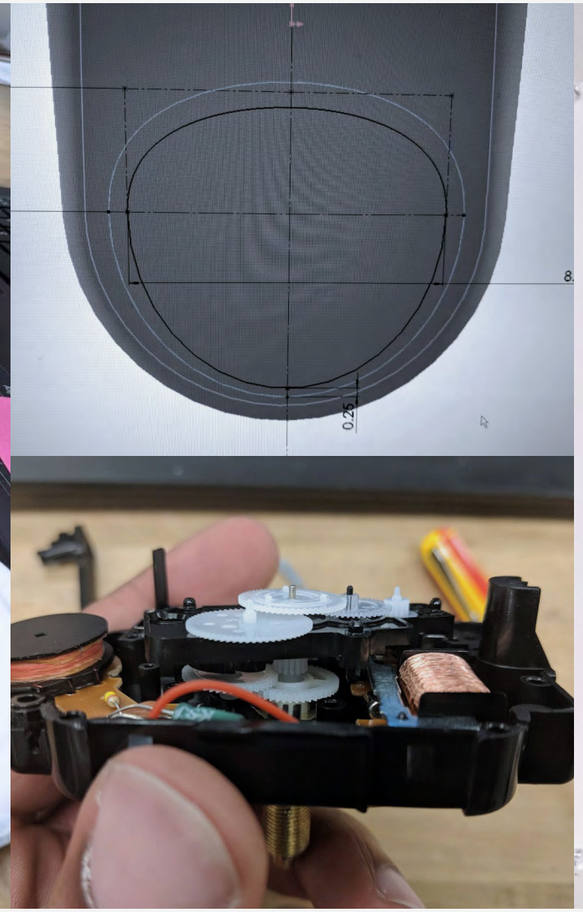
The pendulum was the main component that made it possible, so I pivoted to using the pendulum clock as the focus

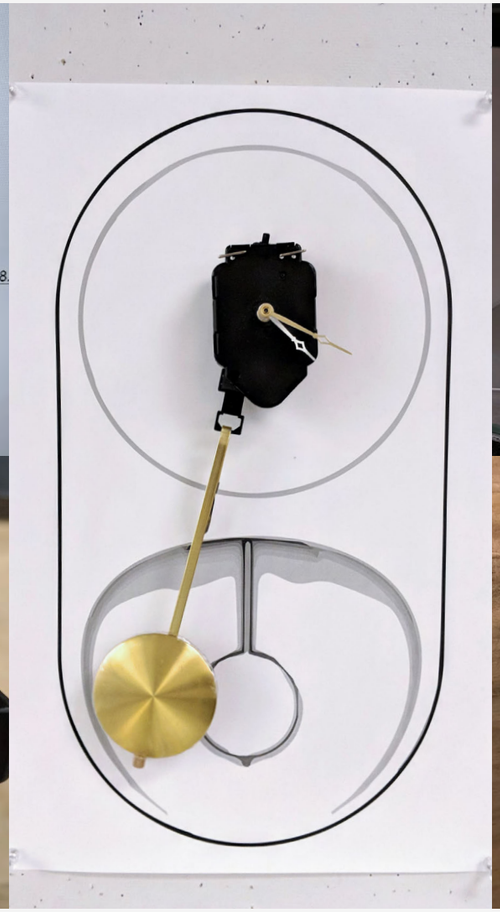


analogous inspiration


MONOLITHIC
BACKLIT
TOO LONG
TOO SKINNY
FACE FEELS FLAT
LIGHT UP NOTIFICATION

concept





prototyping

PENDULUMEN

SMART HOME ASSISTANT

NOTIFICATION PENDULUM

The swinging pendulum glows to remind you of your scheduled events

REPAIRABLE

The internals are easily accessible through the back panel, making repairs and updates easy for the user

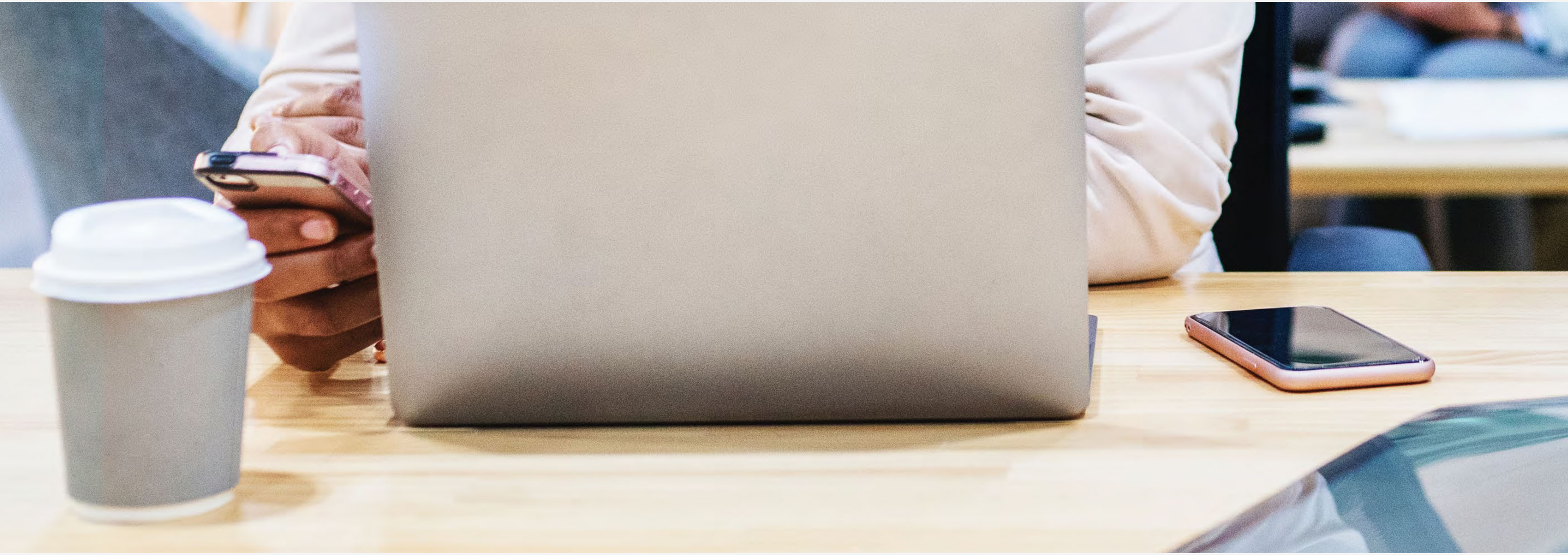
notification pendulum


the insects

SHADE

Eliminating Distractions While Working

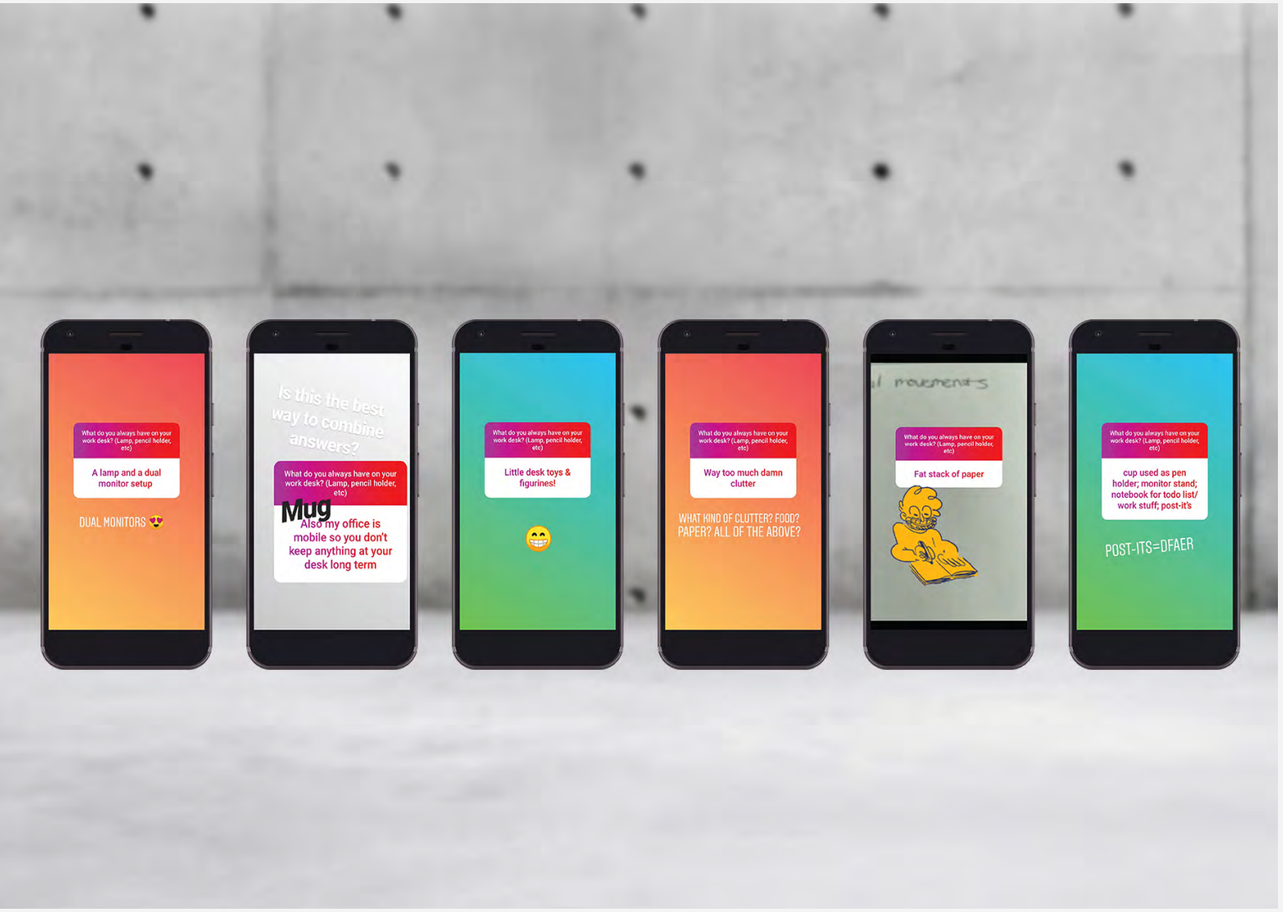
Tama Art University Exchange

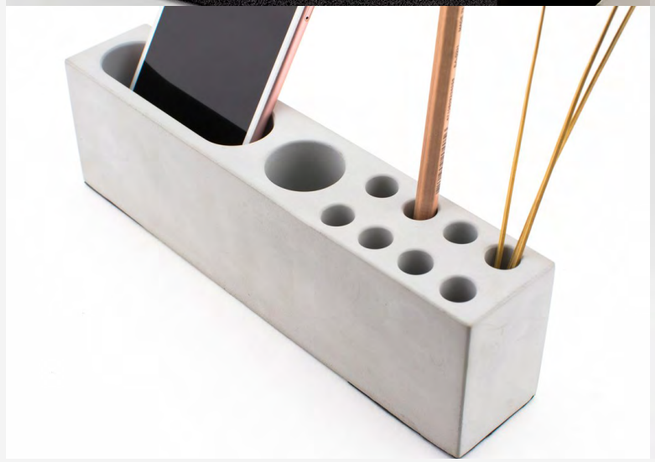


constant companion

Smart-phones give us access to all the knowledge the world has to offer, but all this brain stimulation content makes it hard for you to stay away.

The brain stimulating effects of smart-phones harm us most while we are hard at work.

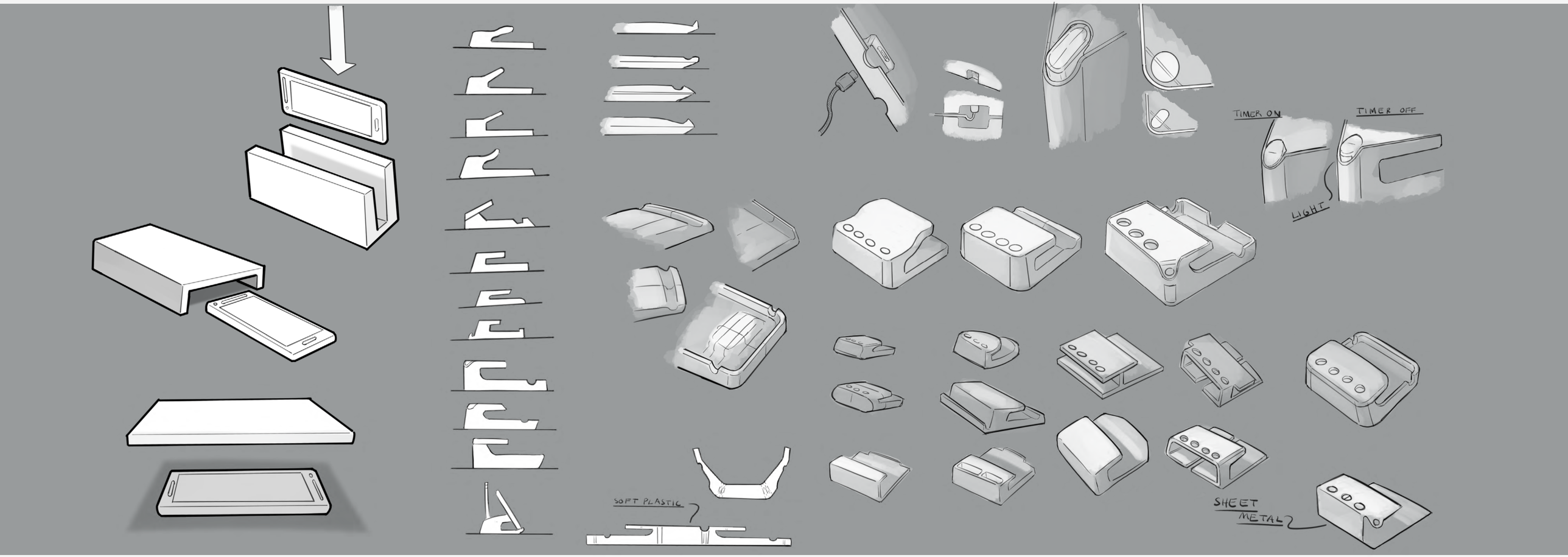




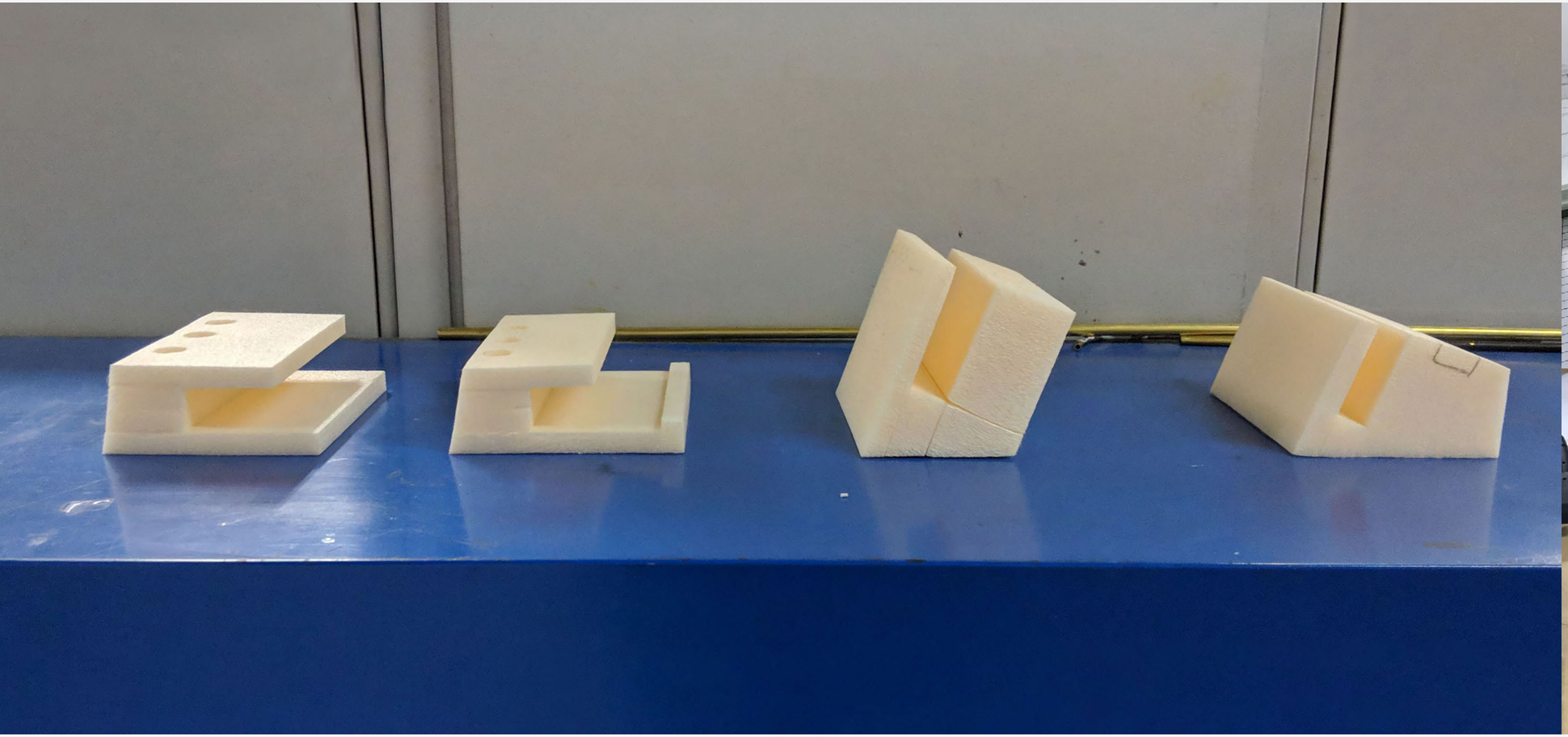
research

With smartphone users being my target market, Instagram worked well to obtain research.

Looking at the market of desk accessories, current smartphones products all prioritize screen visibility. For those wishing to decrease their screen time, this can be detrimental.

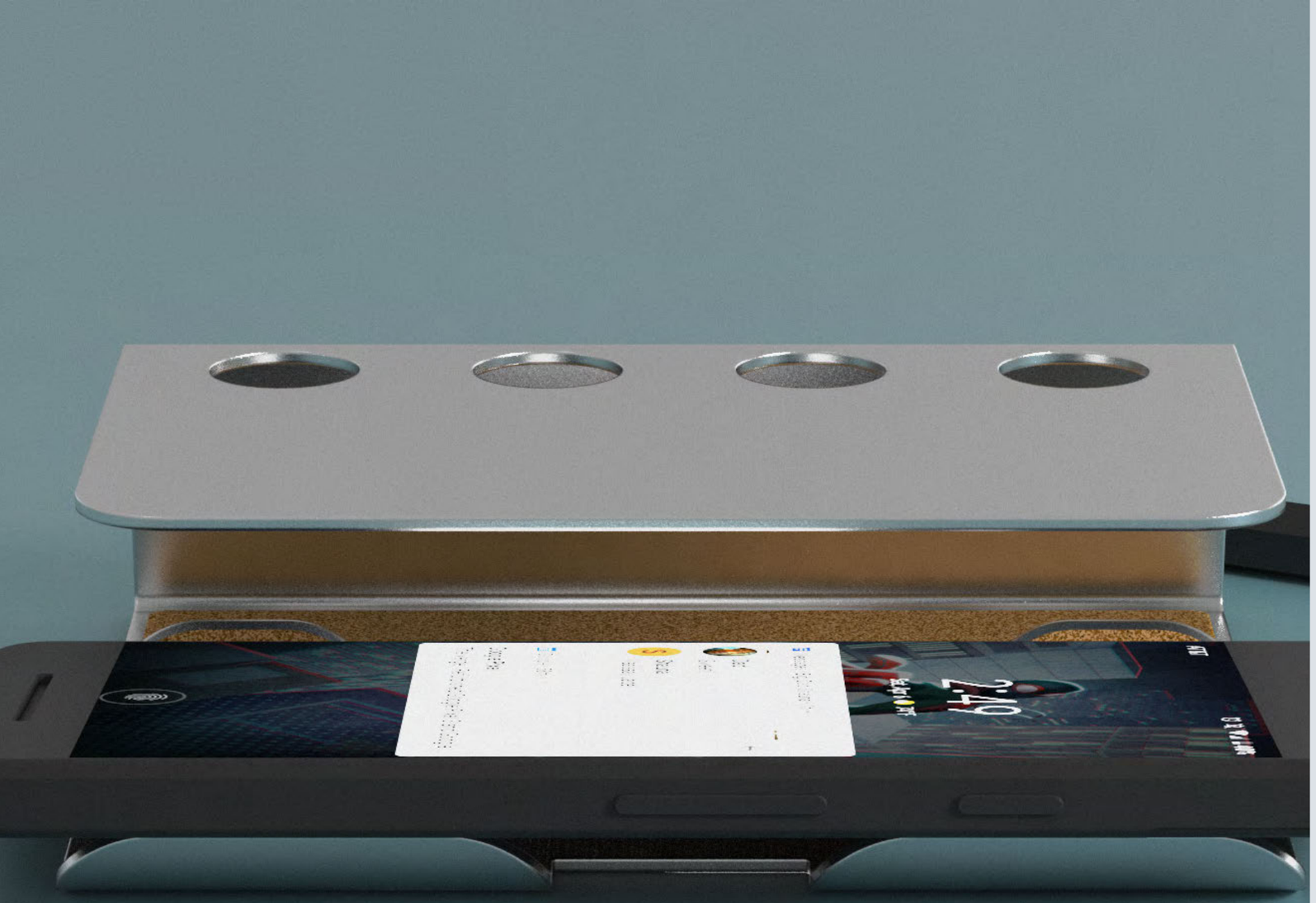


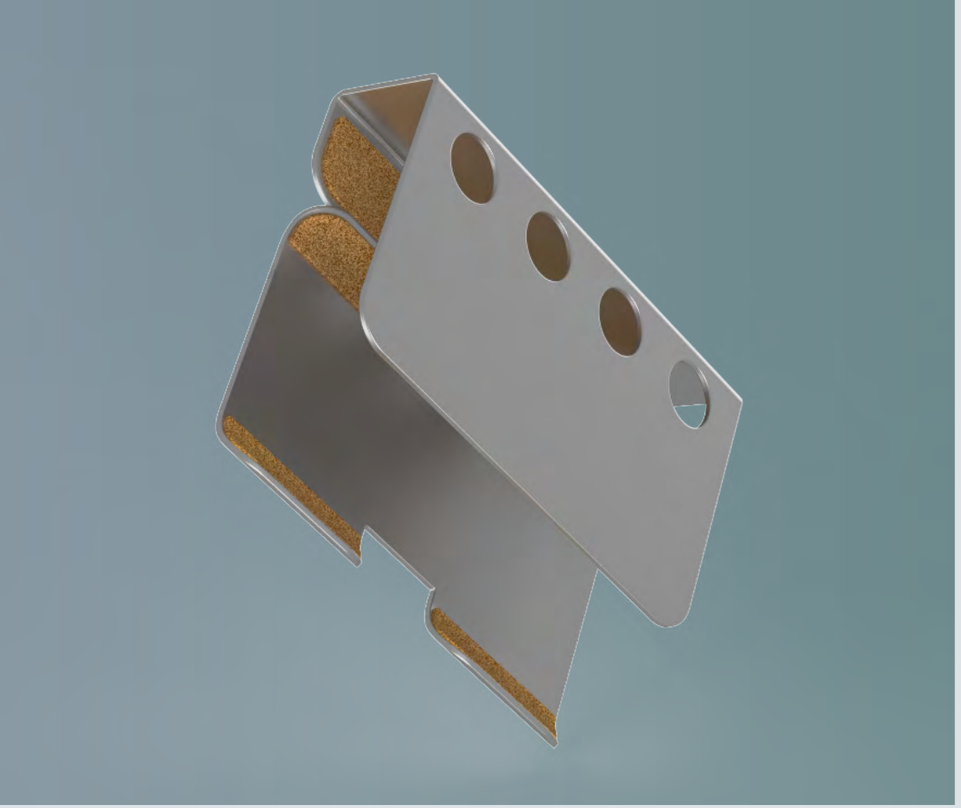
sketches



3d sketching

Physical prototyping was important to understand the interactions and understanding the how the phone can be both blocked from your view while also being accessible when needed.

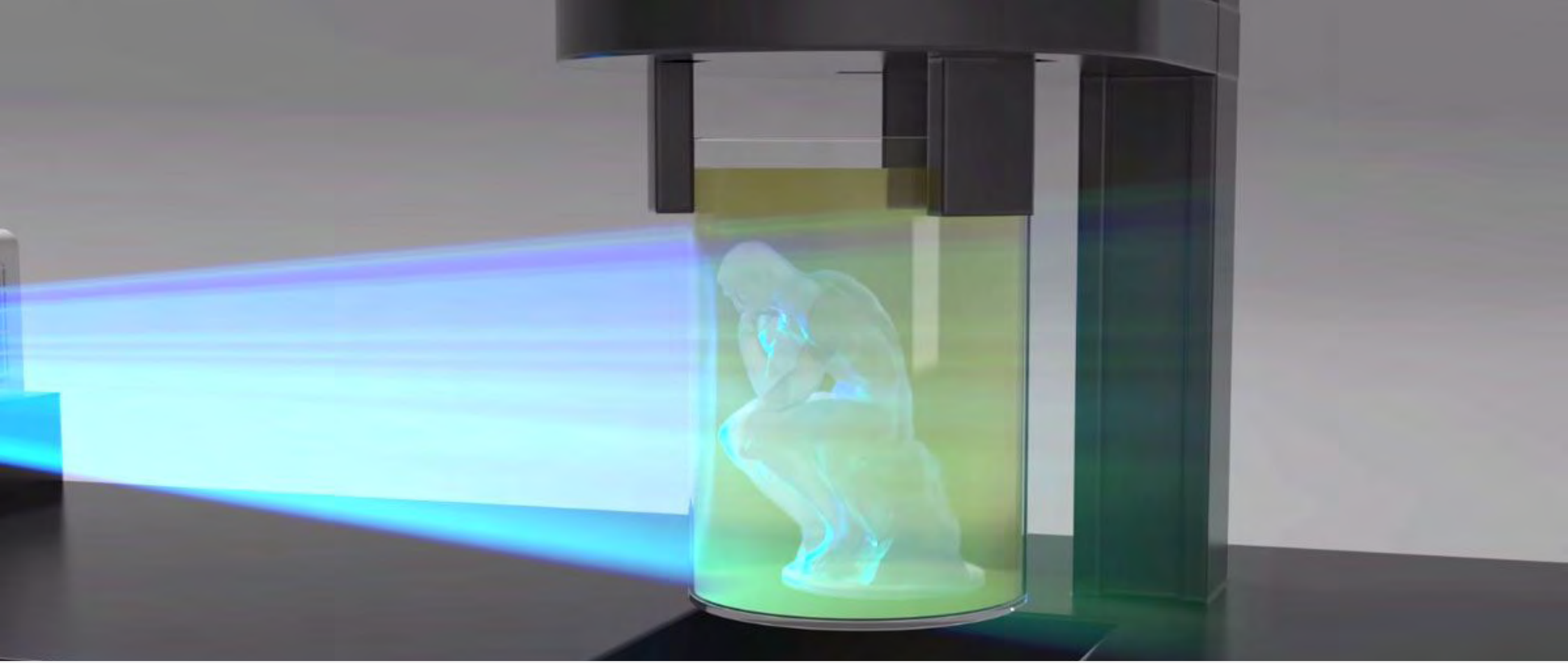





FIRST WE FEAST

LightJet Printer

Two week concept product for 3D printing in 2027

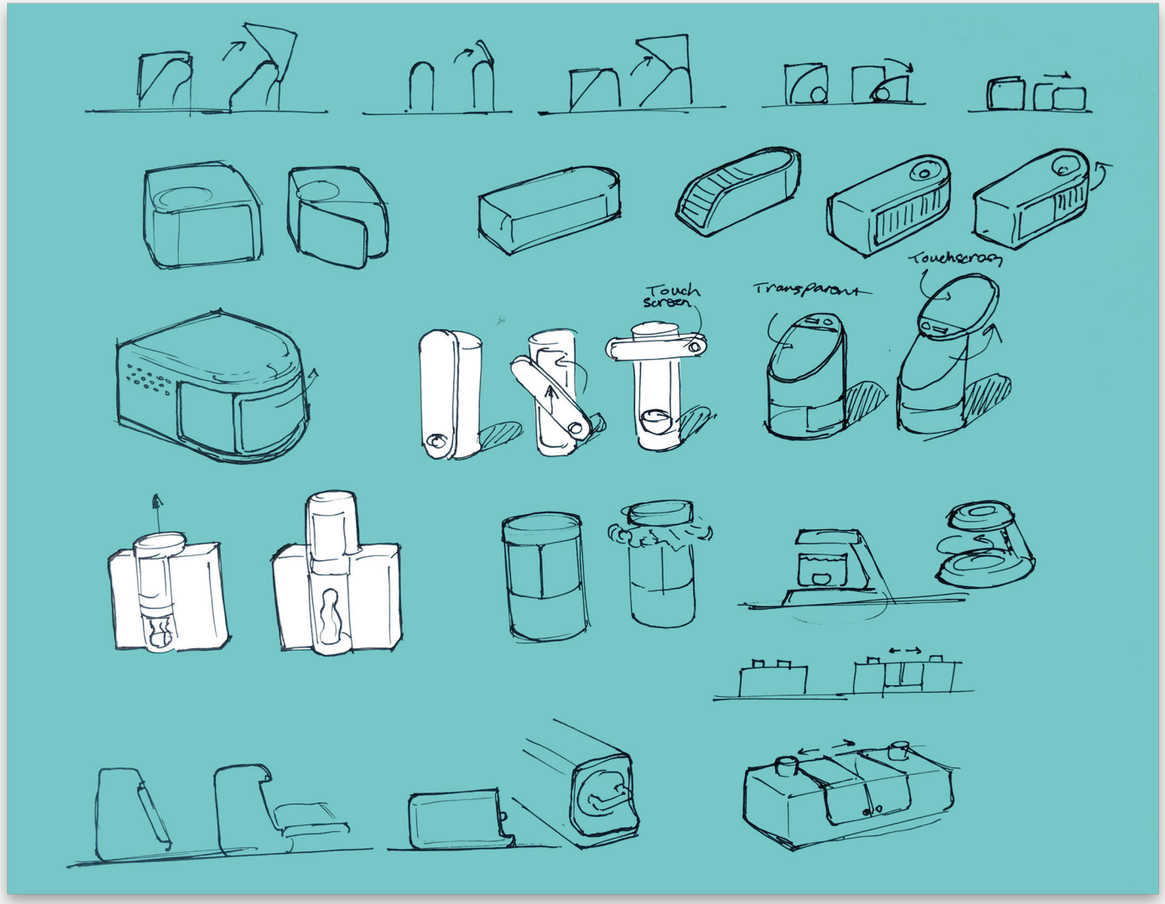


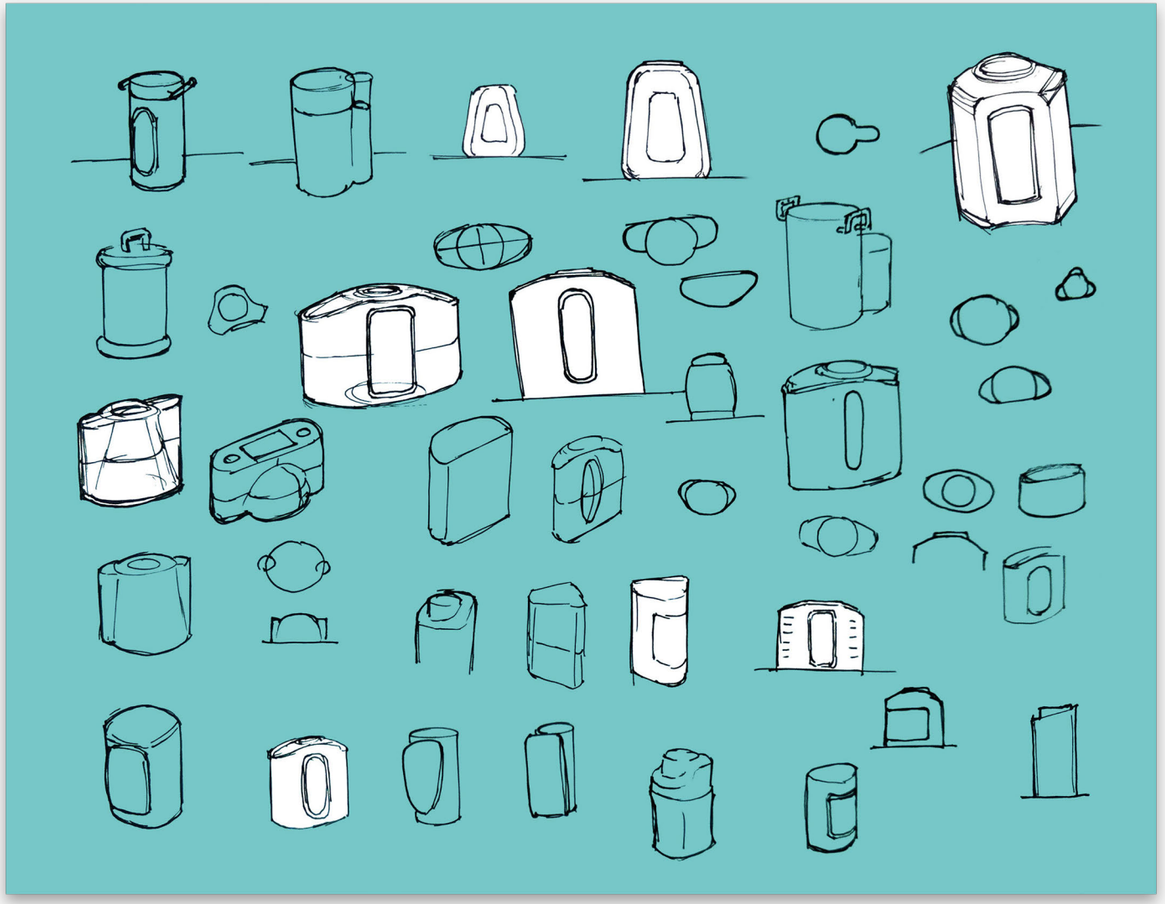
current breakthrough

In early 2019, scientist have developed a new method of 3d printing using light rays projected into a liquid resin. This new method has been found to be 100 times faster. Now imagine how this breakthrough will change printing in the future.

aesthetic

3D printing has promised a better future, but has traditionally been to slow to for traditional home use. For this concept the goal was to fit this printer to a residential setting.





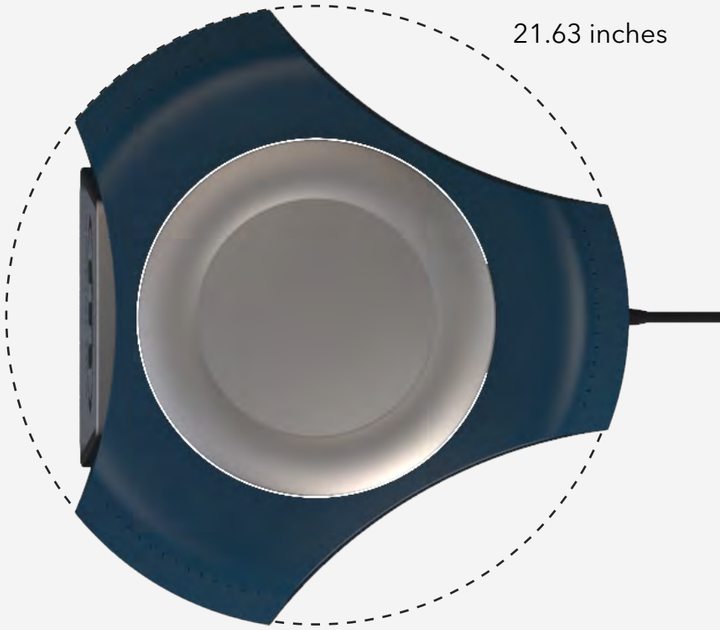
sketches

In the context of a home setting, I explored forms that would potentially sit on counter-tops, keeping in mind issues of interaction and space with the opening

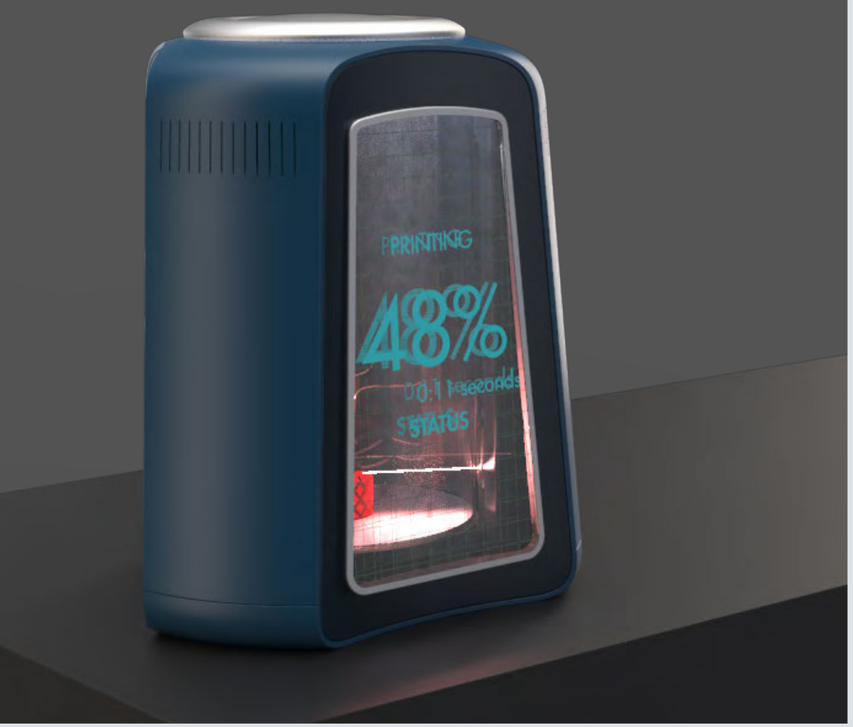
Makerbot LightJet

Insanely fast printing at your finger tips

25.25 inches



21.63 inches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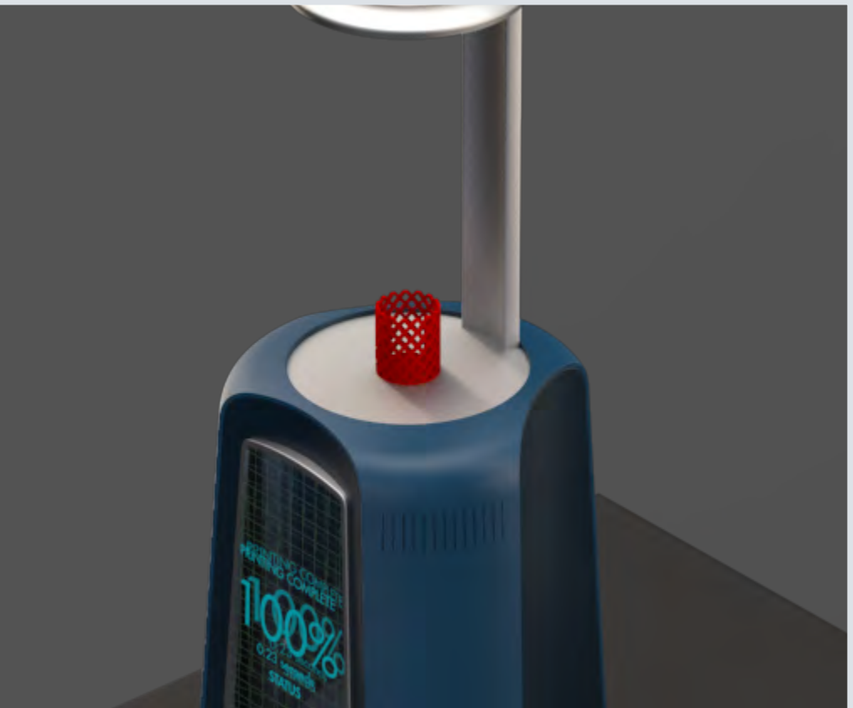
48%
00:1 seconds
STATUS

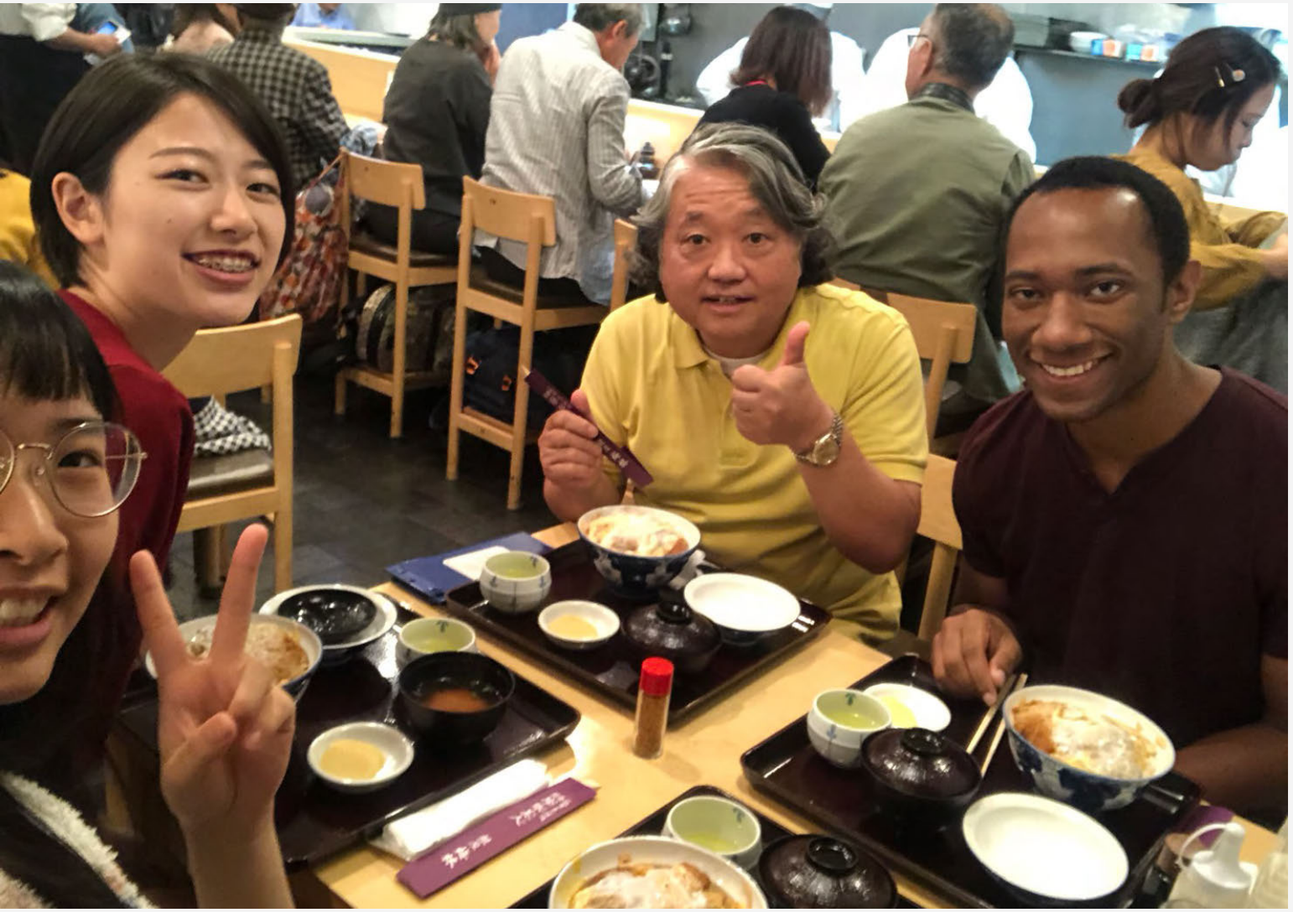

PRINTING COMPLETE
100%
STATUS


MakerBot
slide to unlock

Washi Watch

Exploring Japanese Materials

Tama Art University Exchange



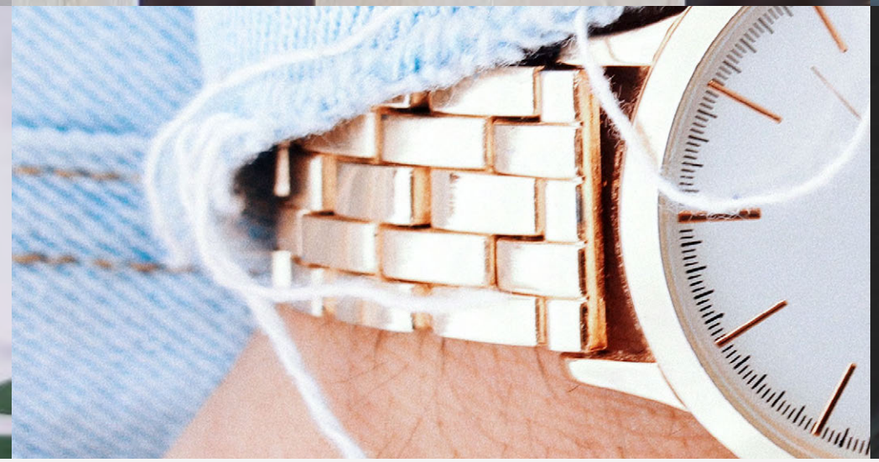
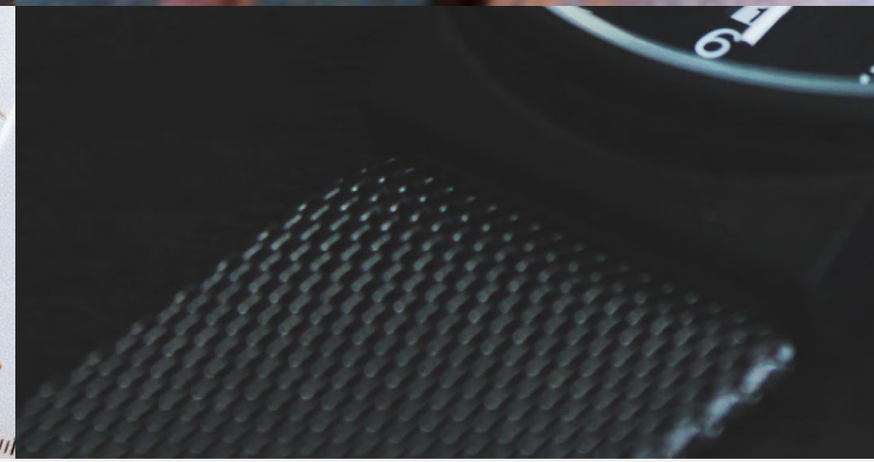
My semester project was to explore Japan and find inspiration for a project

overview

washi aka japanese paper

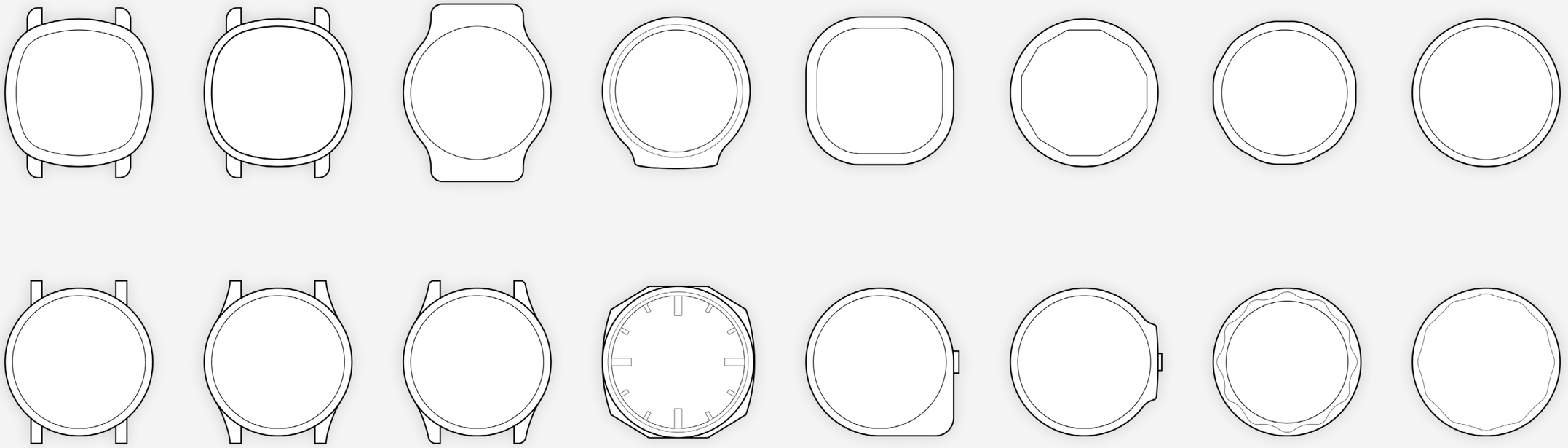
I became fascinated in the many uses of washi. Washi can come in many forms and has a huge amounts of applications. Stationary, clothing, lighting, umbrellas, and much more.



watch-strap?

I was surprised to not find a watch that attempted to use paper as a watch-strap, so I decided to make my own.



case body

Going through several iterations I decided to choose a simple design that would bring more focus to the watch-strap

watch face

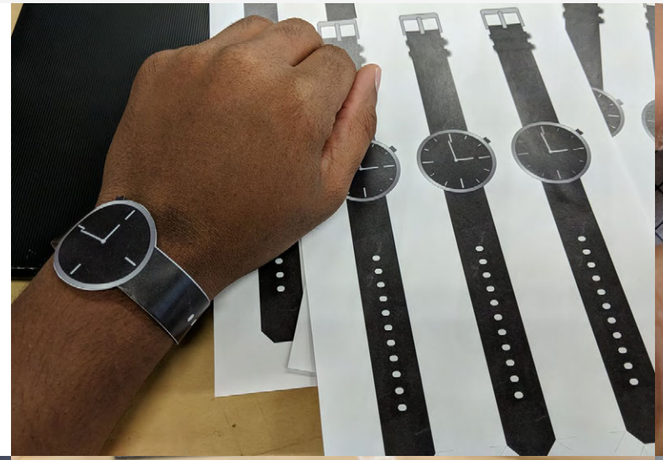
I considered several materials for the case body and how the case material would affect the watch face material.

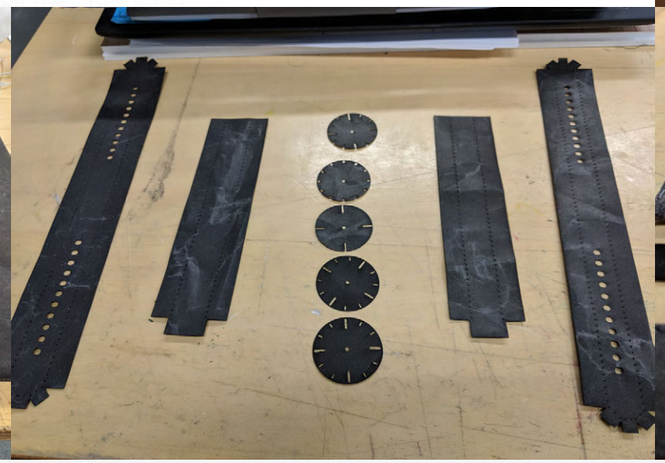
material choice

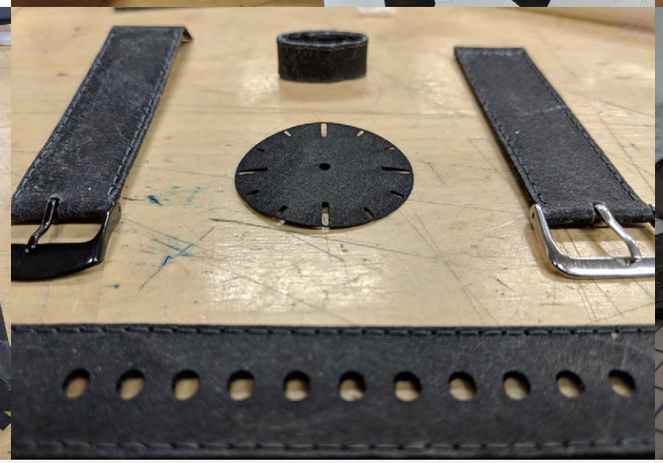
I was on the verge of making my own material when I discovered the **SIWA** brand. They are made from a special blend of wood fiber and plastic called ***Naoron***. With the added strength from plastic, I felt confident it could be used as a watchband.

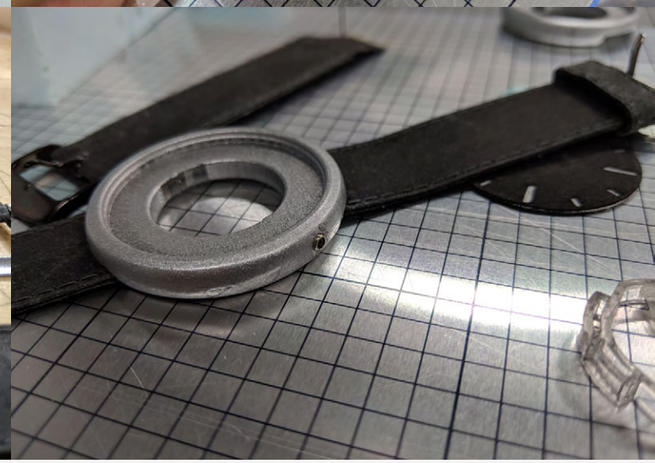
final round

Faces were chosen to optimize the readability of the face white and maximize the area of the washi dial.









prototyping

To choose a final face, I made prototypes to get a better idea of the scale of the watch on the wrist.

I chose to use standard watch parts instead of custom so that I could reduce the cost of the watch.

WASHITCH

Laser cut dial

Ergonomic crown

Aluminum case

Water resistant

Tear resistant


RESISTANT
MINUM CASE
JAPAN MOVT

D’VAN HOWARD

INDUSTRIAL DESIGN 2019

THANK YOU

dvanhoward@gmail.com
1.502.298.4418