

D'VAN HOWARD

INDUSTRIAL DESIGN 2018

D'VAN HOWARD

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EDUCATION

University of Cincinnati, DAAP
BS in Industrial Design
Class of 2020

Tama Art University
Product Design Exchange
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

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

Supported team with presentation illustrations, research, and concept development. Cintiq sketching, ideating, 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 to improve ergonomics and productivity on the manufacturing line. Mapped out HVAC piping for manufacturing line to improve comfort. Designed and began development on new dolly to reduce strength required to push car frame.

SKILLS

DIGITAL - Solidworks, Meshmixer, Alias, Fusion 360, KeyShot, Microsoft Office (Word, PowerPoint, Excel), HTML, Adobe Suite (Photoshop, Illustrator, InDesign)

ANALOG - Analytical Thinking, Sketching, Rendering, Empathy, Human Centered Design, Prototyping, 3D Printing, Laser Cutting, Ideation, Woodshop, Leadership

LANGUAGES - English (Native), Spanish (Beginner Proficiency), Japanese (Beginner Proficiency)

INVOLVEMENT

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

UC Honors Program
2015 - Present

UK Habitat For Humanity
Club President
2013 - 2014

UC Dean's List
2015 - Present

LIKES

Problem Solving, Sci-Fi, 3D Printing, Ultimate Frisbee, Learning new things, Podcasts, Food, Superheroes, Games, Bowling, Pizza Making, Hot sauces

GREETINGS FROM JAPAN

I just wanted to let you know that I am currently studying abroad at **Tama Art University** in Japan. I won't be available by phone, but feel free to reach out via email.



ABOUT ME

I am an investigative individual.

I like to gain deep insights into problems in order to develop innovative solutions.

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



ACTION CHESS

An Unique Chess Set To Enhance
The War Essence Of The Game



CHESS SET VARIATIONS

I noticed that all sets fell in three categories, but none of these types changed how the players interacted with the pieces.

Traditional Style



Sculptural Forms



Advanced Game-play



DESIGN GOALS

Function

The main goal is to enhance the interaction involved with capturing your opponent's pieces



Form

With the main focus being the action of the pieces, the form is traditional so that the game is still recognizable

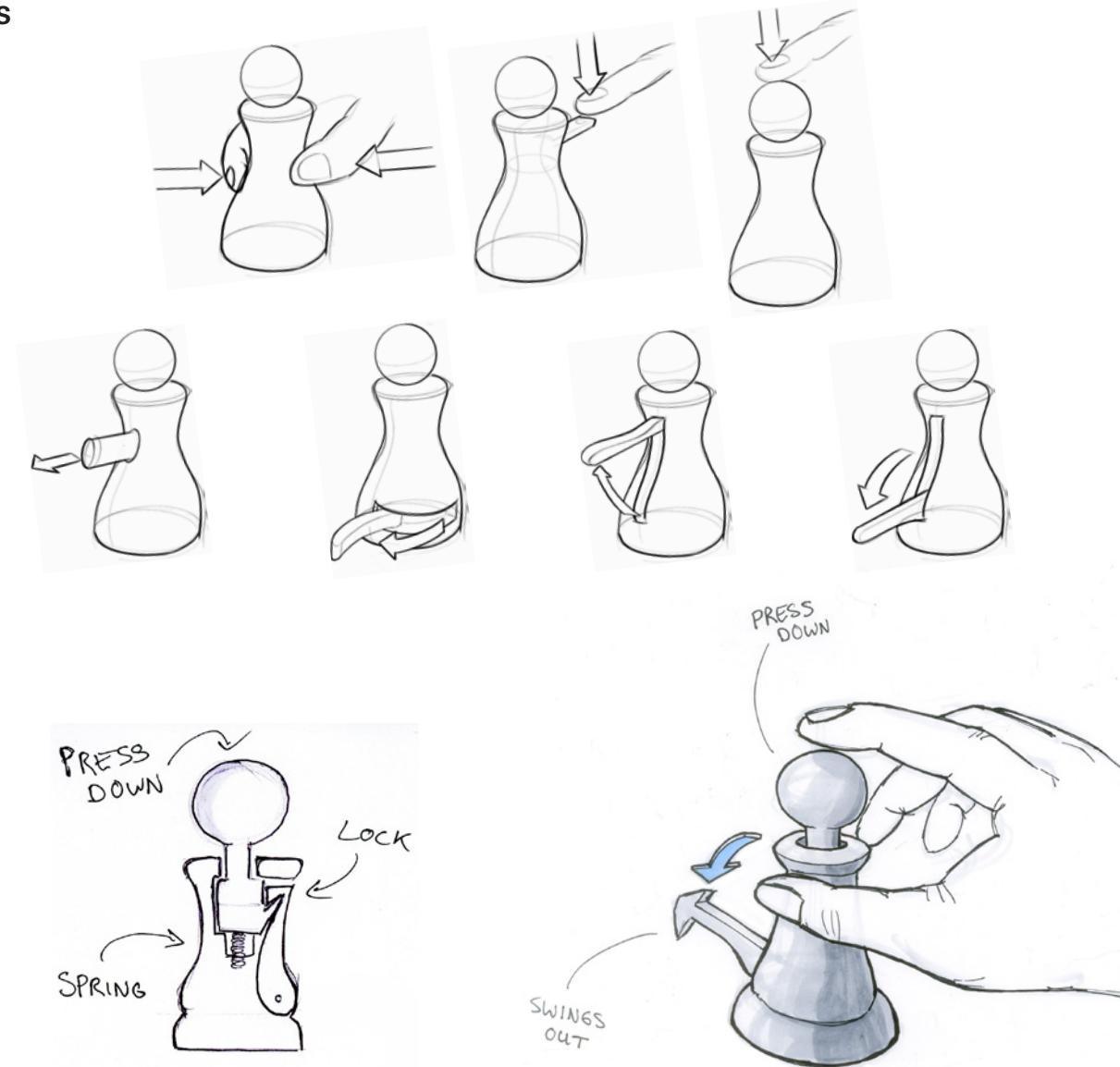


Interaction

The interaction with the pieces should not be complicated, so that the board does not feel chaotic

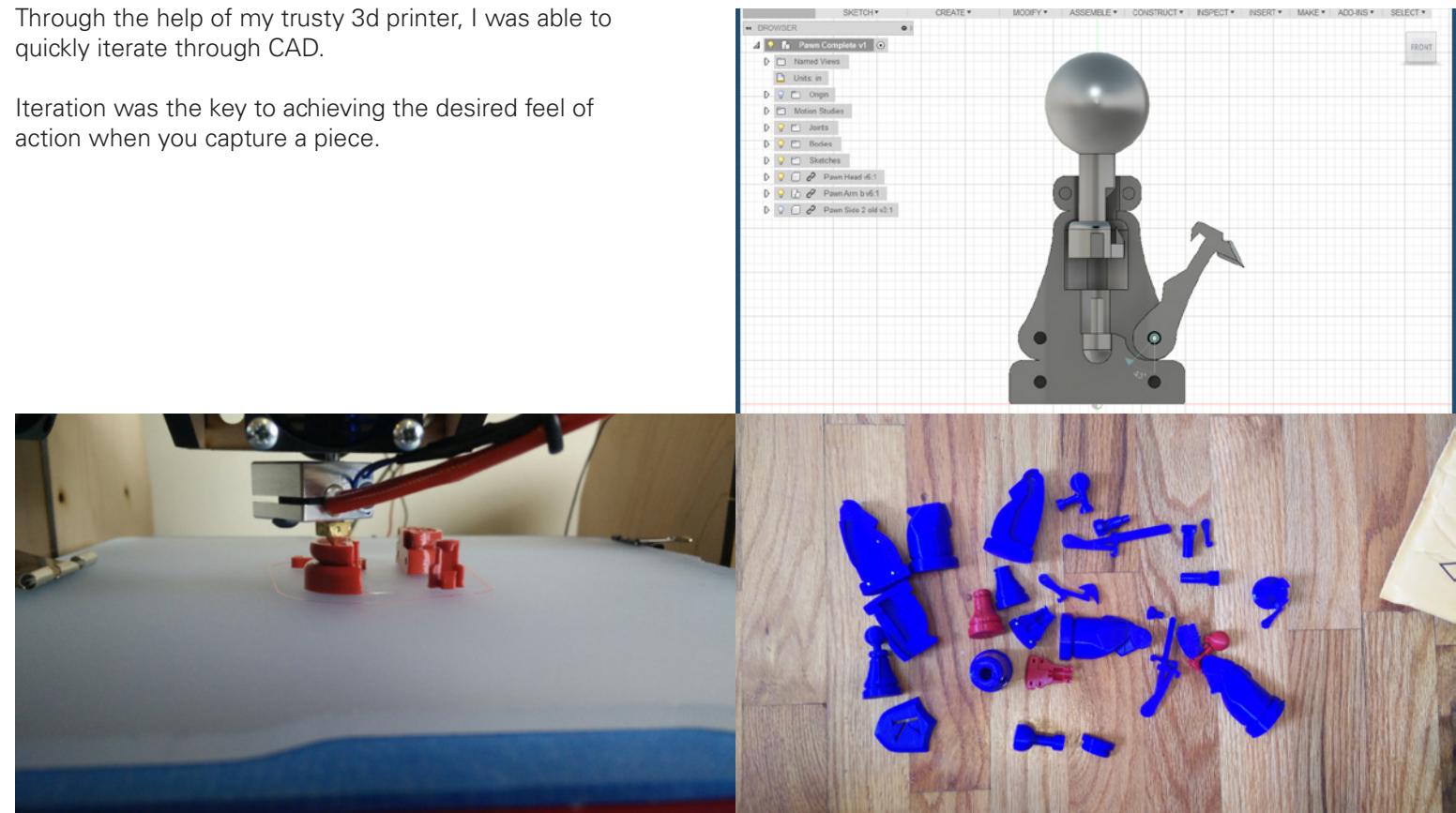


PROCESS

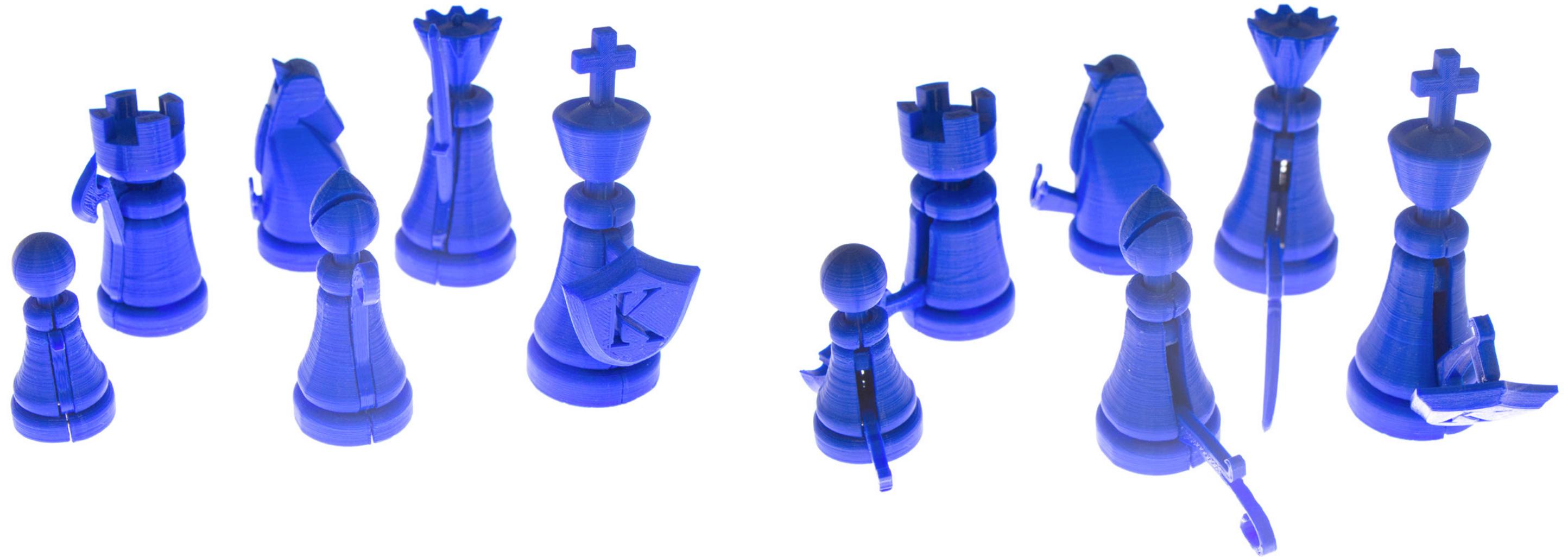


Through the help of my trusty 3d printer, I was able to quickly iterate through CAD.

Iteration was the key to achieving the desired feel of action when you capture a piece.



PRINTED SET



WEAPONS



DAGGER

As the weakest piece, the pawn gets the weakest weapon

AXE

The solid rook is equipped with a heavy, solid weapon

HORSESHOE

Resembling a horse, the knight is armed (or legged) with a horseshoe

STAFF

The bishop is armed with a staff just like the religious figures it's based off

SWORD

The Queen is the most powerful piece in the game, so the sword is a symbol of that might

SHIELD

To ensure victory you need to defend your king. What better defense is a shield?

IN ACTION



CHECKMATE



HVLP Automotive Spray Gun

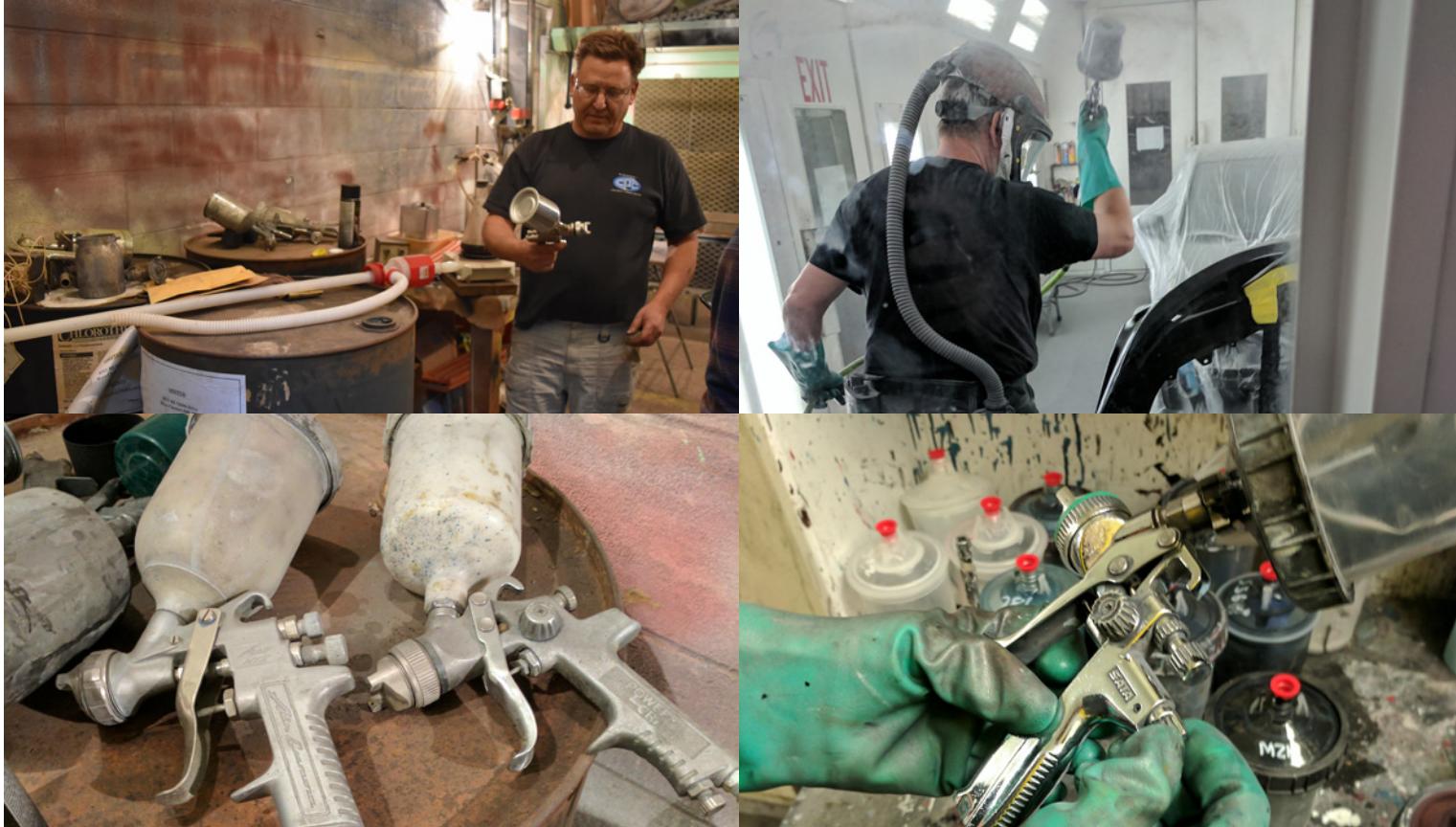
Power Tool & User Guided Design



USER RESEARCH

Automotive paint technician is a highly skilled job. They are required to do 3-5 years of training to enter the field.

With the nature of the work, quality is key. These skilled technicians replicate the quality of finish that, by industry standard, is achieved by automotive factory robots.



"GOOD ERGONOMICS, LESS NOISE, SPEED, AND PERFORMANCE ABOVE ALL"

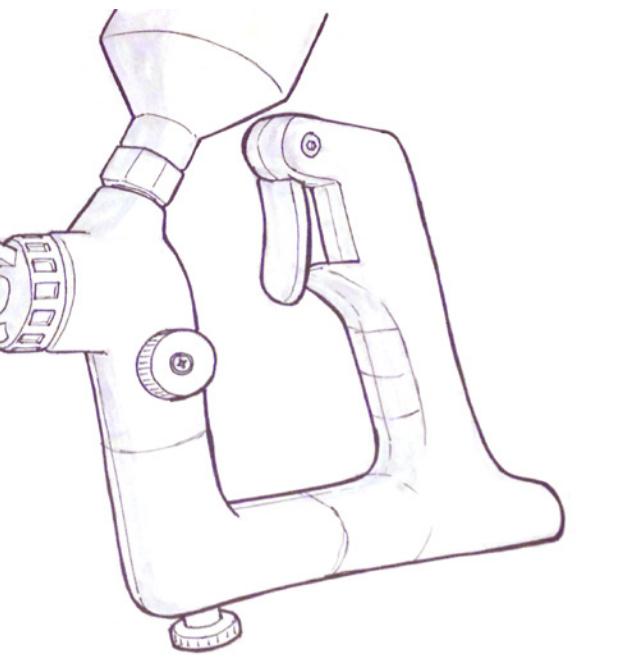
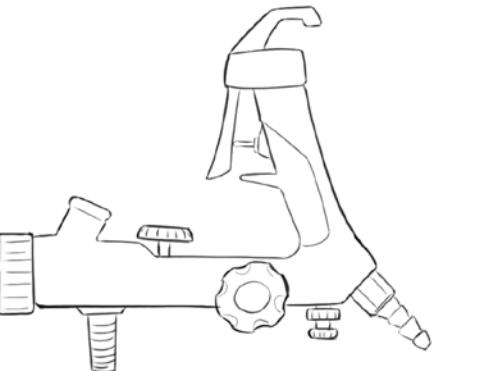
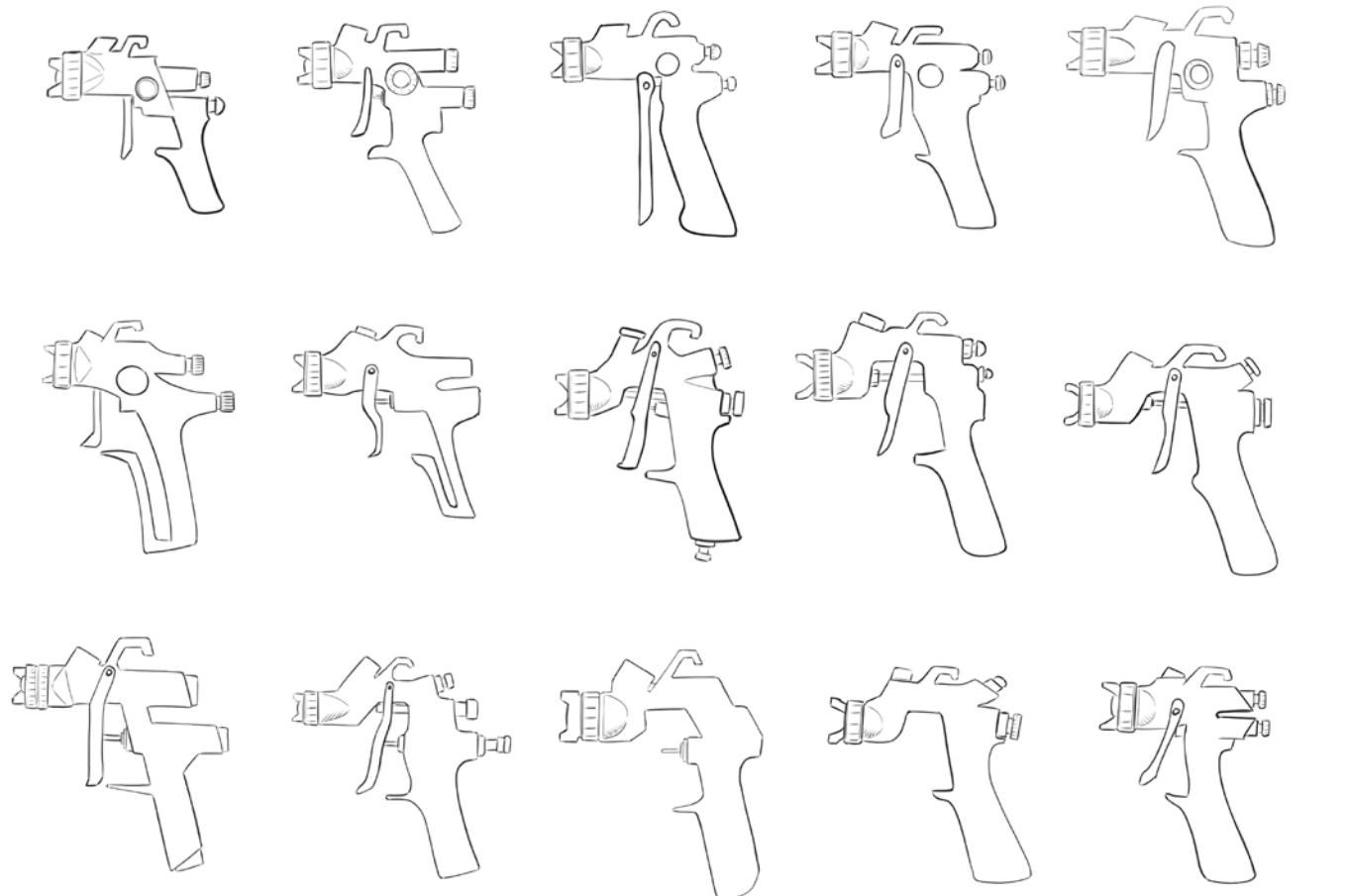
PROBLEM IDENTIFIED

From shadowing and interviewing the technicians, I discovered a problem not addressed by any current designs



"I ALWAYS HAVE TO HOLD THE AIR HOSE SO I DON'T ACCIDENTALLY HIT THE CAR"

ITERATIONS



SATAjet® 5500 D Enterprise™

The Enterprise is a special edition of the SATAjet line of HVLP spray guns.



The Enterprise features a repositioned air inlet nozzle.

This nozzle allows you to use a ceiling supported air system for worry-free movement on the job.



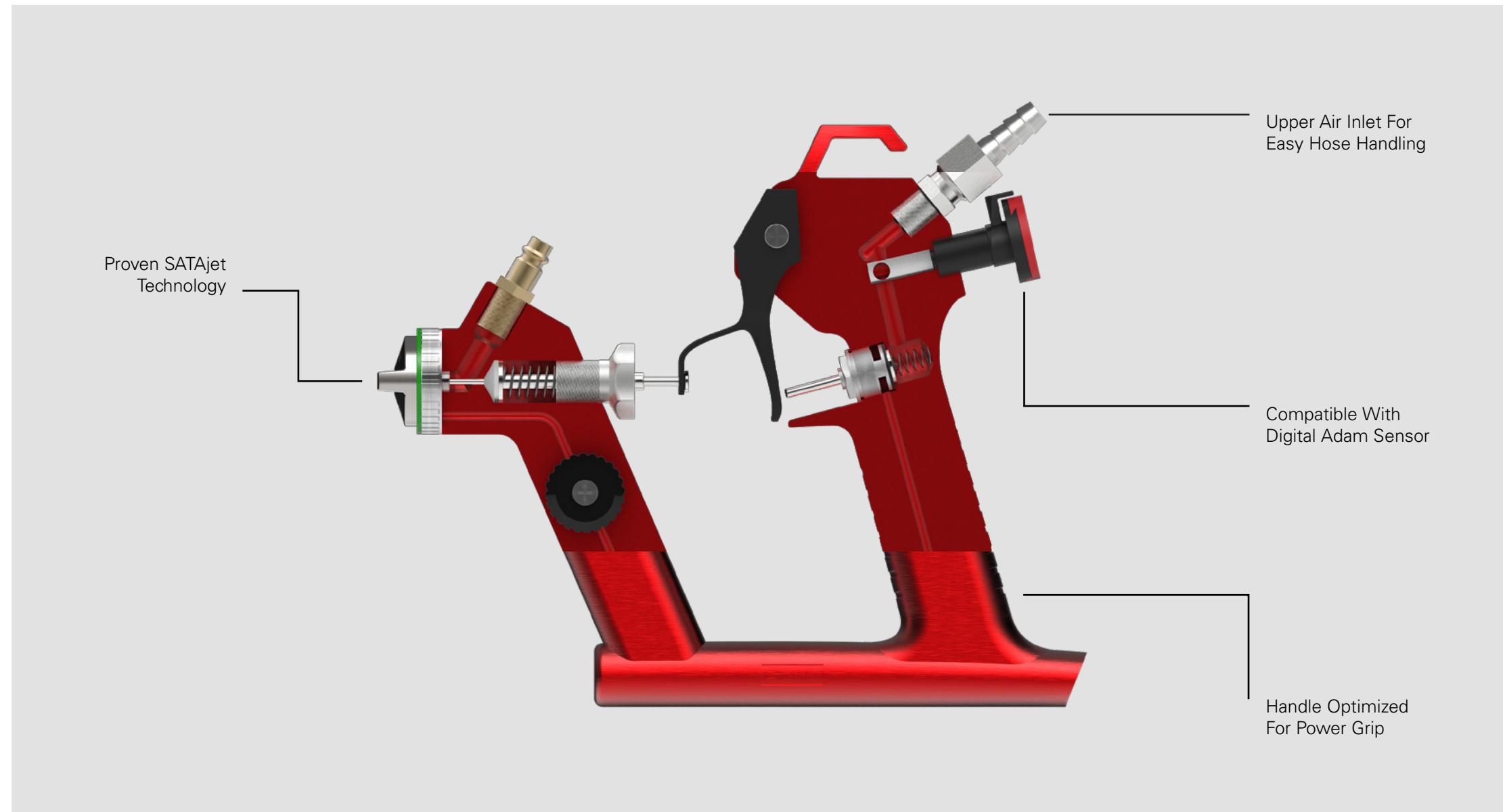
BRAND: SATA

"SATA Quality" is a firm conviction for any painter: reliability, durability and ergonomics of their SATA products are not something to be questioned.

SATA is the most trusted brand by paint technicians. They are more expensive than other brands, but for the price you get quality engineering to give you the best performance.



FEATURES



NICE FINISH





DUO/LUX ECO REDESIGN

A lamp for all occasions

DESIGN GOALS

COOL WHITE LIGHT

- Promotes focusing
- Helps you stay awake
- Colors appear closer to true color



WARM WHITE LIGHT

- Promotes relaxation
- Less strain on eyes
- Better transition to sleep



PREVIOUS DESIGN

This is the first version of my DUO/LUX lamp design.

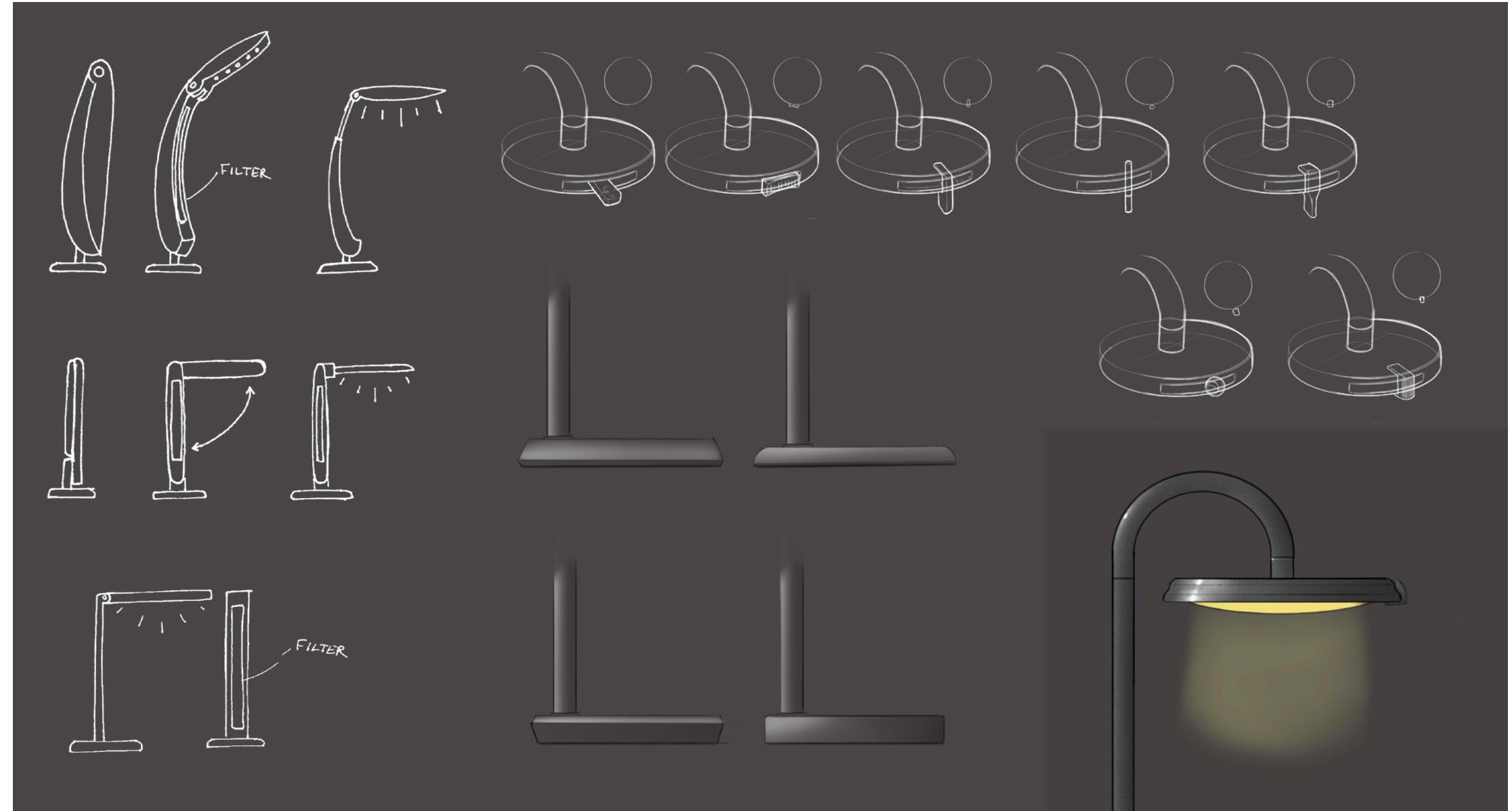
I chose to redesign the lamp for an OKLA redesign project.

FEATURES

- Filter to change between cool and warm light
- Energy saving LEDs with high color accuracy
- Touch strip dimming
- 360 degrees of movement
- USB charging



SIMPLIFIED

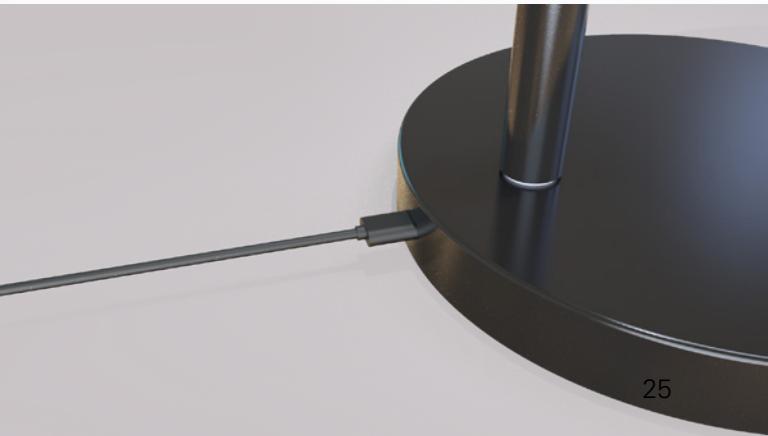


DUO/LUX



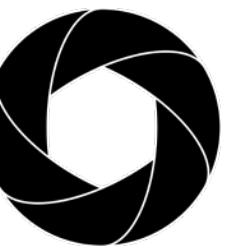
ECO CHANGES

- Reduced material and features from previous design
- Made with recycled aluminum
- Anodized metal generates no hazardous waste
- Simplified form for easy repair and recycling



DUAL TEMPERATURES

Simply close the aperture filter to ease your eyes







PENDULUMEN

PENDULUMEN

Modernizing Traditional Elements

Modernizing Traditional Elements

The goal of this studio was to choose an old product or tradition and create a new or updated product that would fit in the current or near future market

I chose the Longcase Clock aka *Grandfather Clock*, which is the nickname it has been given since many people's grandfathers (including mine) had one of them in their home.



Redefining the Tradition

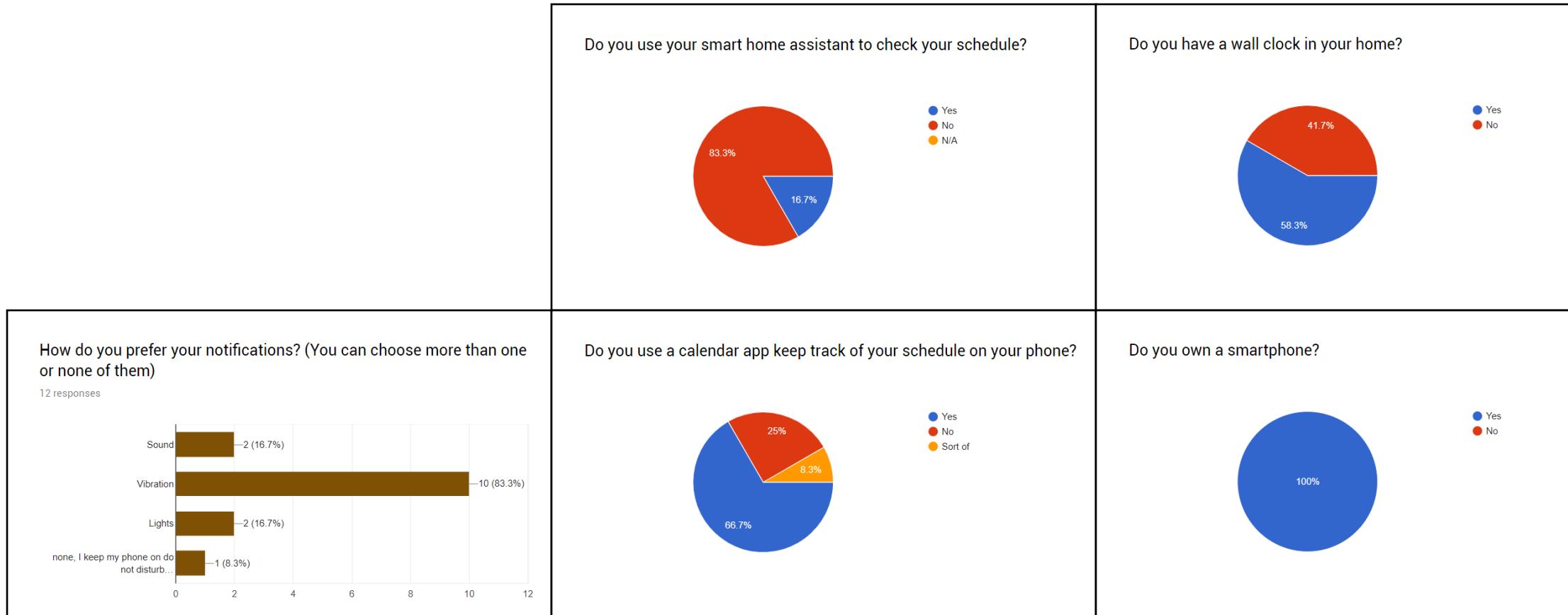
The Grandfather Clock lost it's place in the home because of advancing time keeping technology. Less bulk, less adjustment, more functions.

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

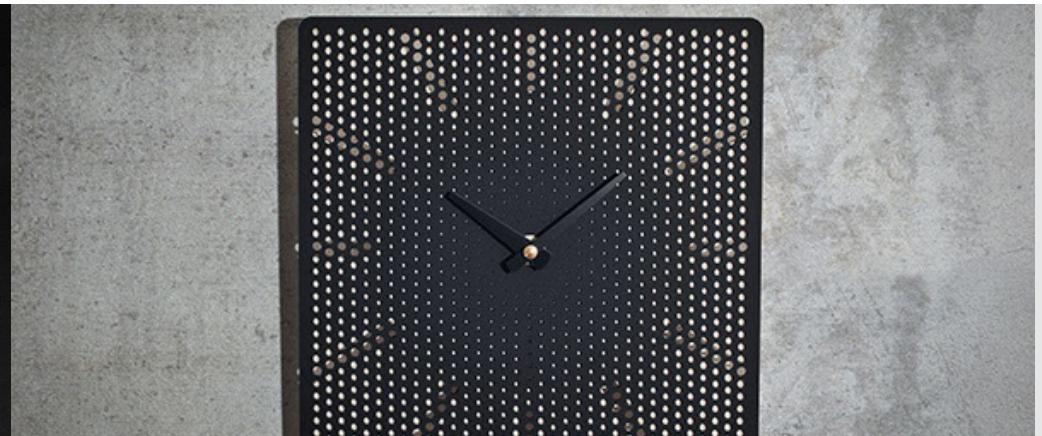


Research Driven

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



Aesthetic Direction



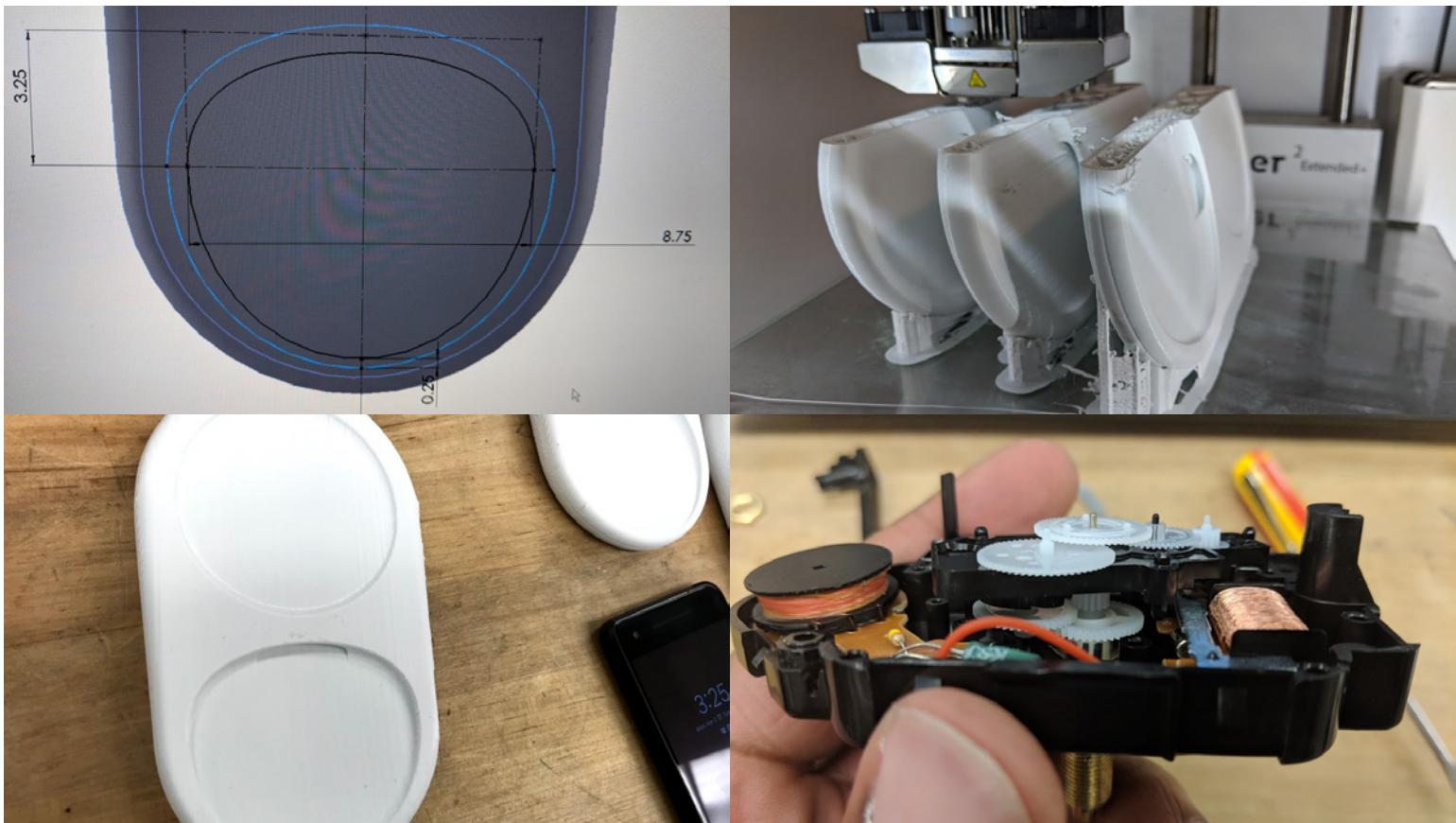
Concept Development

Considering many forms, functions, and technologies, these possibilities drove my vision.

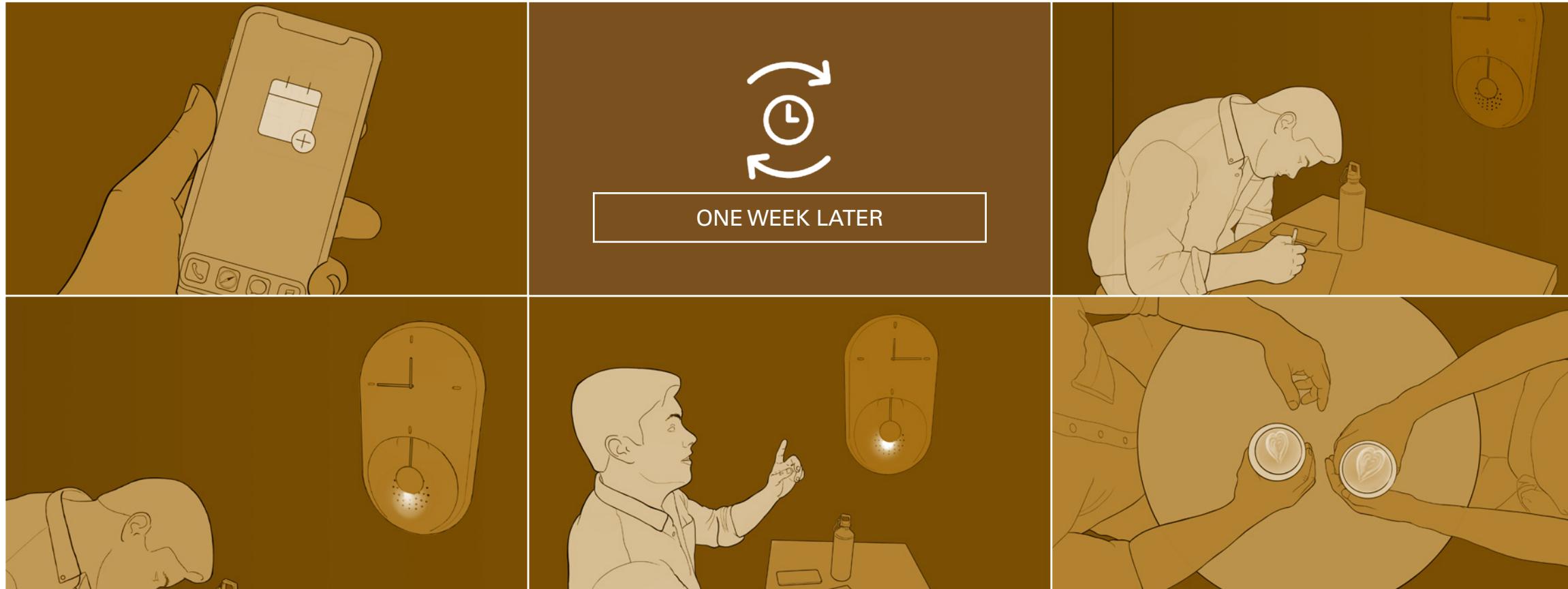
Going back and forth between research and concepts, I finally narrowed it down to a final design.



Prototyping



Smart Pendulum



PENDULUMEN

Smart Home Assistant



Two 40mm Drivers



LED Back-Lit



Subtle Notifications

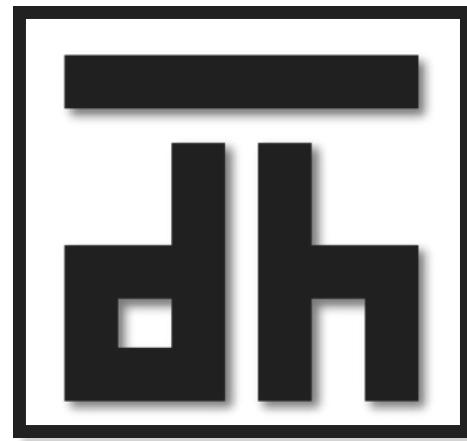


Current smart home assistants like Alexa and Google Home have been invading the home as a new device, but as a clock the PenduLumen already has a place in our homes.



Make Your Home Smarter





D'VAN HOWARD

THANKS

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