



D'VAN HOWARD
INDUSTRIAL DESIGN

TAAJWAR D'VAN HOWARD

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EDUCATION

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

University of Kentucky
BS in Mechanical Engineering
Class of 2014

Pamplona Learning Spanish Institute
Renewable Energies Study Abroad
Pamplona, Navarra, Spain
Summer 2013

EXPERIENCE

Ethicon Endo-Surgery | 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 Johnson & Johnson 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.

Wagstaff | Hebron, KY

UK: Capstone Project (Fall 2013 - Spring 2014)

Worked in a team to design an automated device to prevent cut aluminum ingots from clamping down and destroying the blade of the bandsaw.

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.

TALENTS

DIGITAL Solidworks, Meshmixer Alias, Fusion 360, KeyShot, Microsoft Office (Word, PowerPoint, Excel), HTML, 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, Futuristic Innovation, 3D Printing, Ultimate Frisbee, Learning new things, Podcasts, Food, Superheroes, Games, Bowling, Pizza Making, Hot sauces

About me

I am an investigative individual.

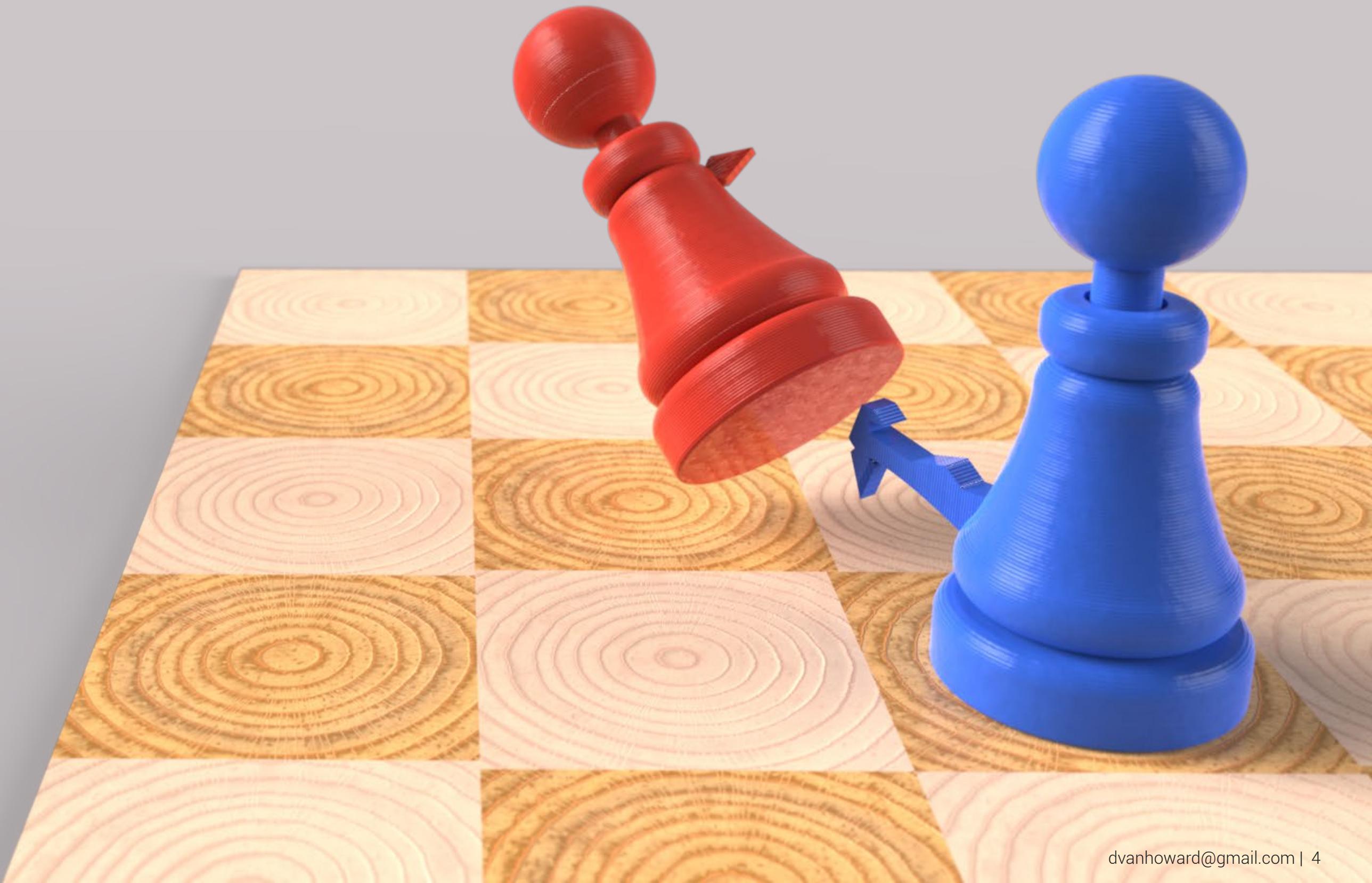
I like to gain deep insights into problems in order to develop innovative solutions.

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

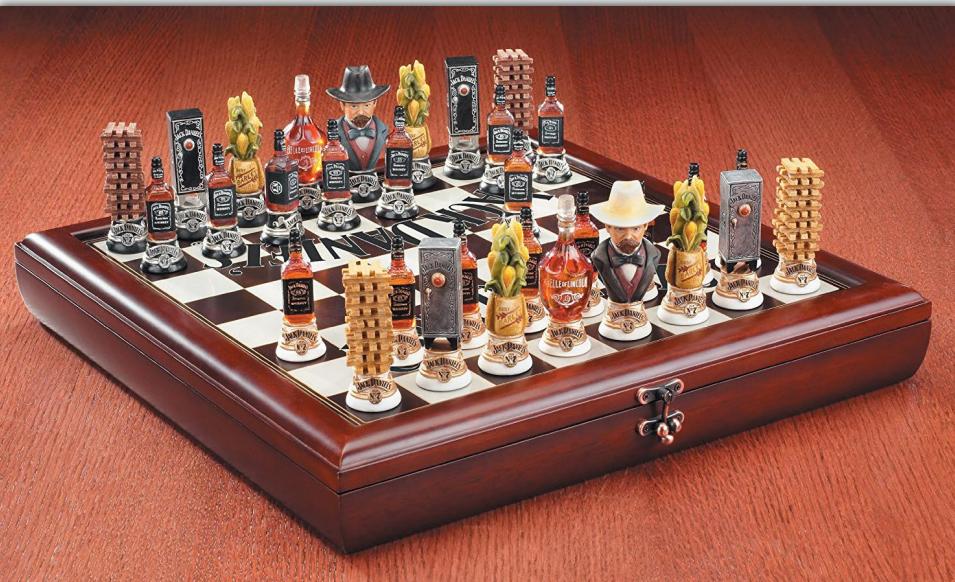


ACTION CHESS

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



research



Throughout the ages, there have been many variations on the game of chess. Some are simple, some are artistic, some are complex, but none really change the interaction with the player and the pieces.

inspiration



Function

The main goal of this is to enhance the interaction involved in capturing the pieces of your enemy.

Form

With the main focus being the function, the form should be something traditional so that the game is still recognizable.

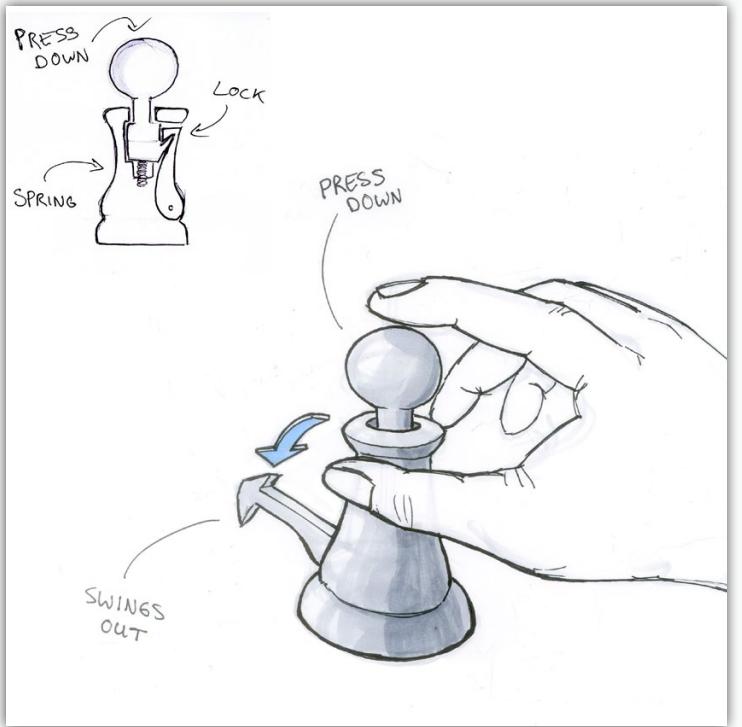


Interaction

With many pieces scattered across the board, the ideal point of interaction is at the top, where you already move the pieces.

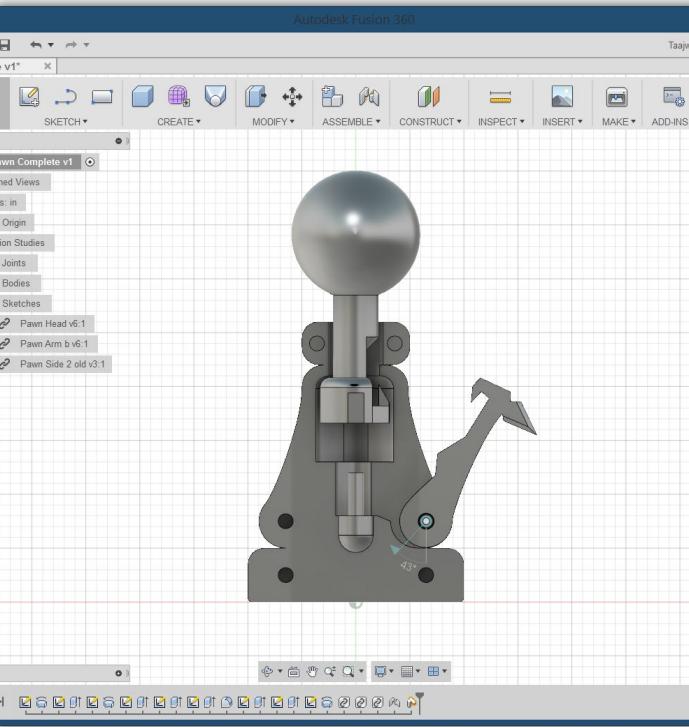


process



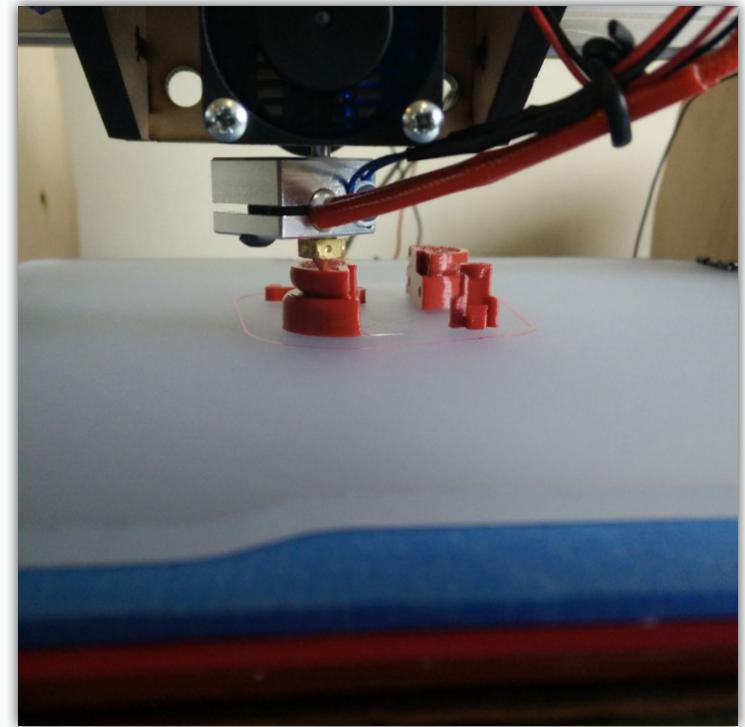
Sketch

The mechanism was the simple part



CAD

From the mechanism, I went straight into CAD to iterate on the components



Prototype

3D printing at home to quickly iterate on the mechanics to make sure the function of the pieces were achieved



Failure

Failure, failure, more failure, and then success!

final form



weapons



DAGGER

As the weakest piece on the board, the pawn uses a simple dagger



AXE

The rook has such a solid structure that it needs a heavy solid weapon



HORSESHOE

The knight resembles a horse, so its weapon should reflect that



STAFF

The bishop is a religious figure and is known to have a staff



SWORD

As the most powerful piece on the board, the Queen needs a weapon to reflect that strength



SHIELD

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





checkmate

DUO/LUX LAMP

A lamp for all occasions



design goals

COOL WHITE LIGHT

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

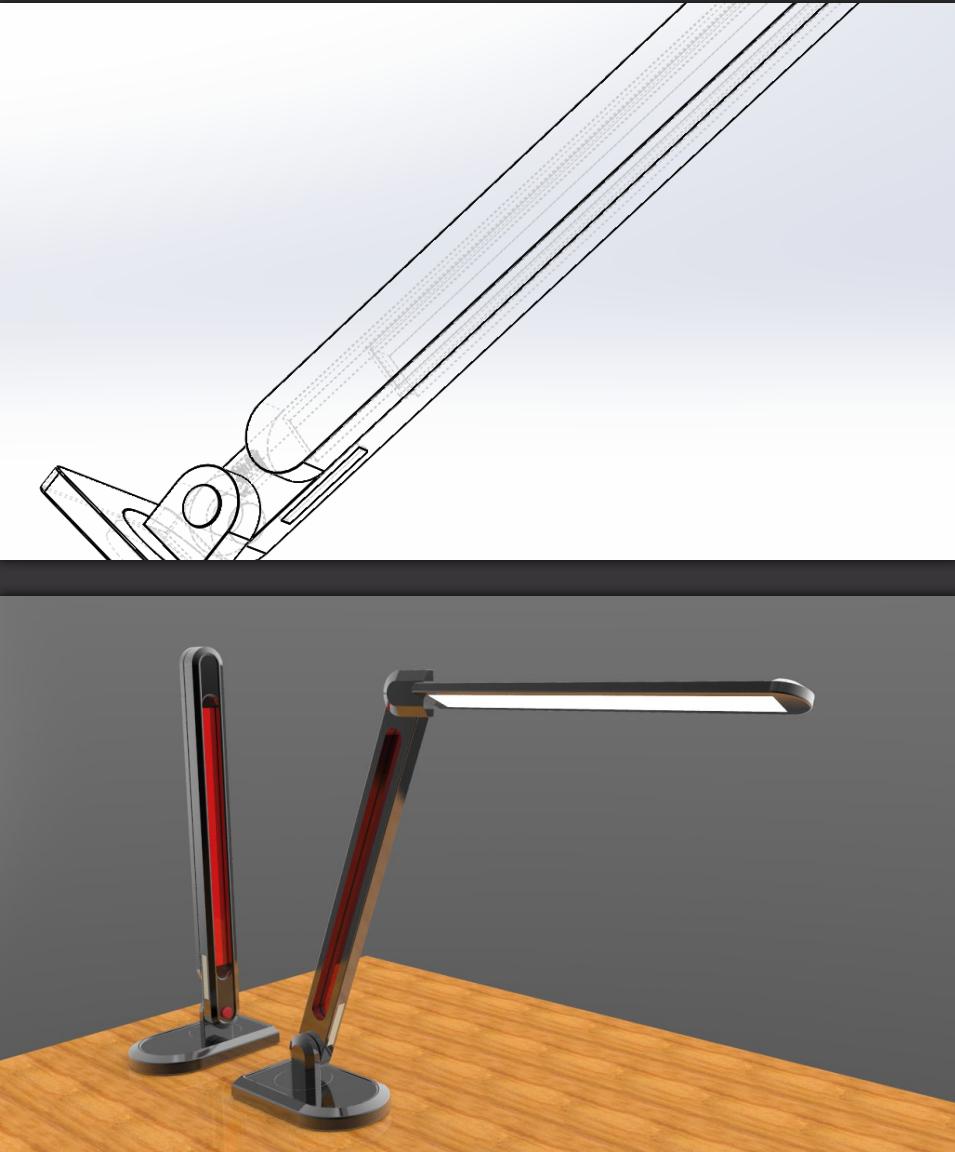
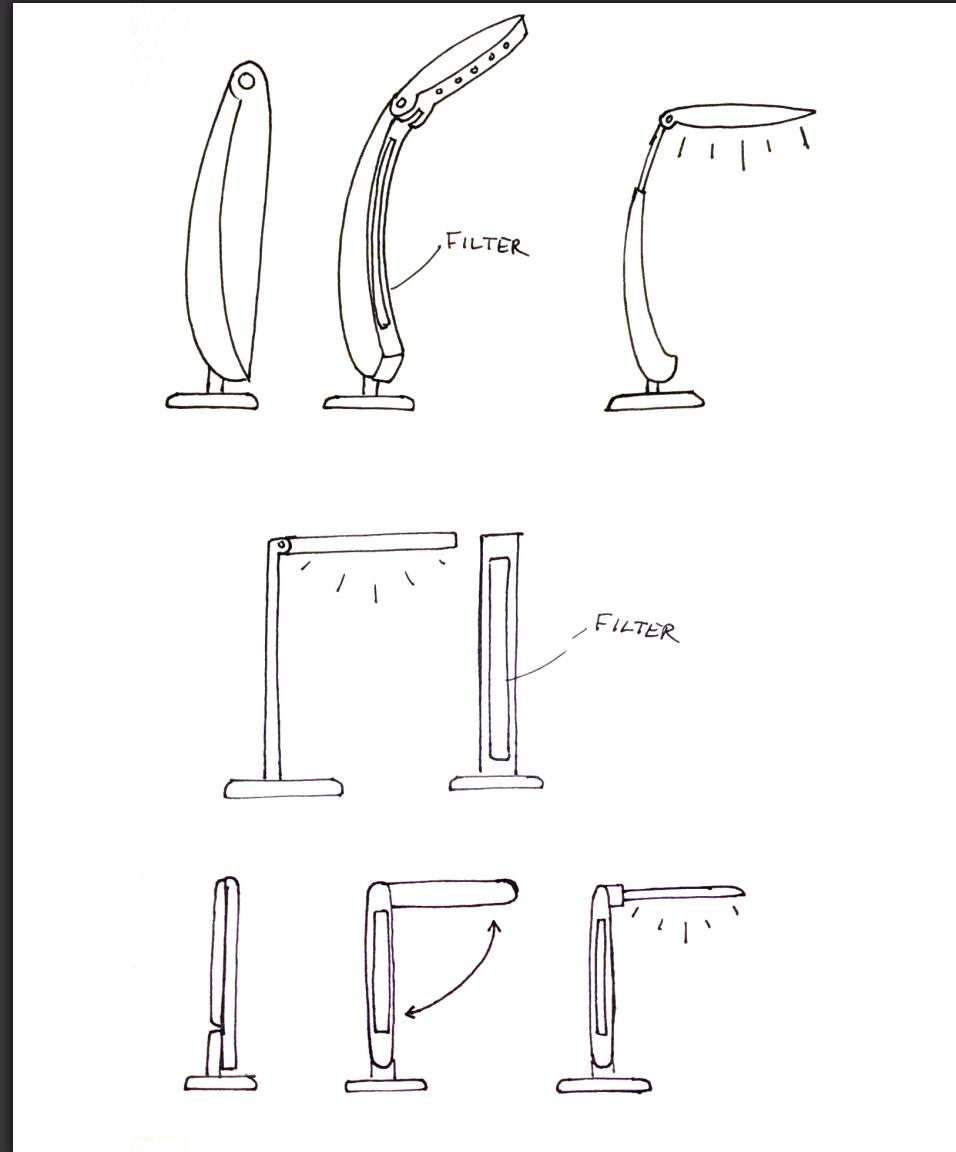


WARM WHITE LIGHT

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



development



features

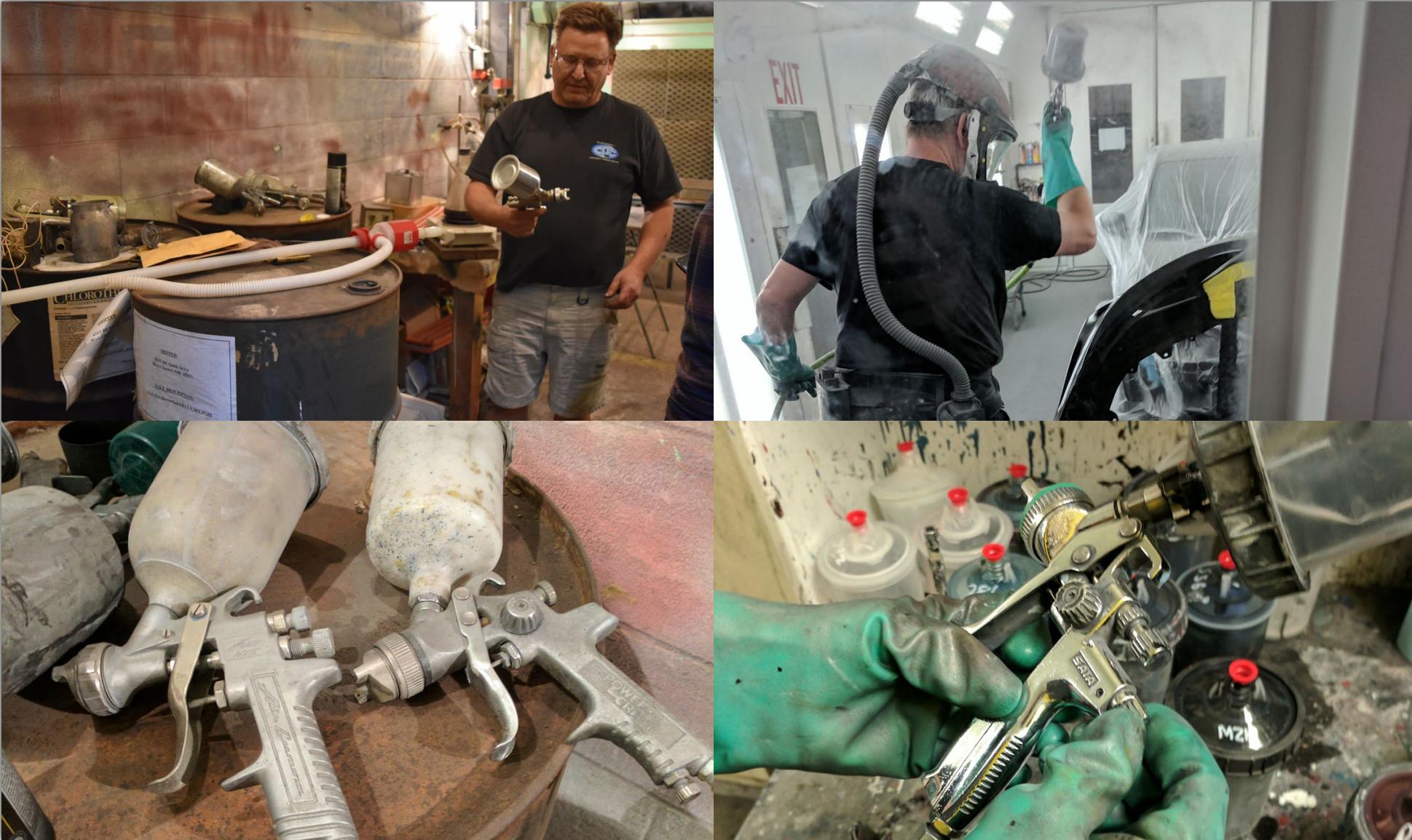




SATAjet® 5500 D Enterprise™ HVLP

Where style and performance intersects

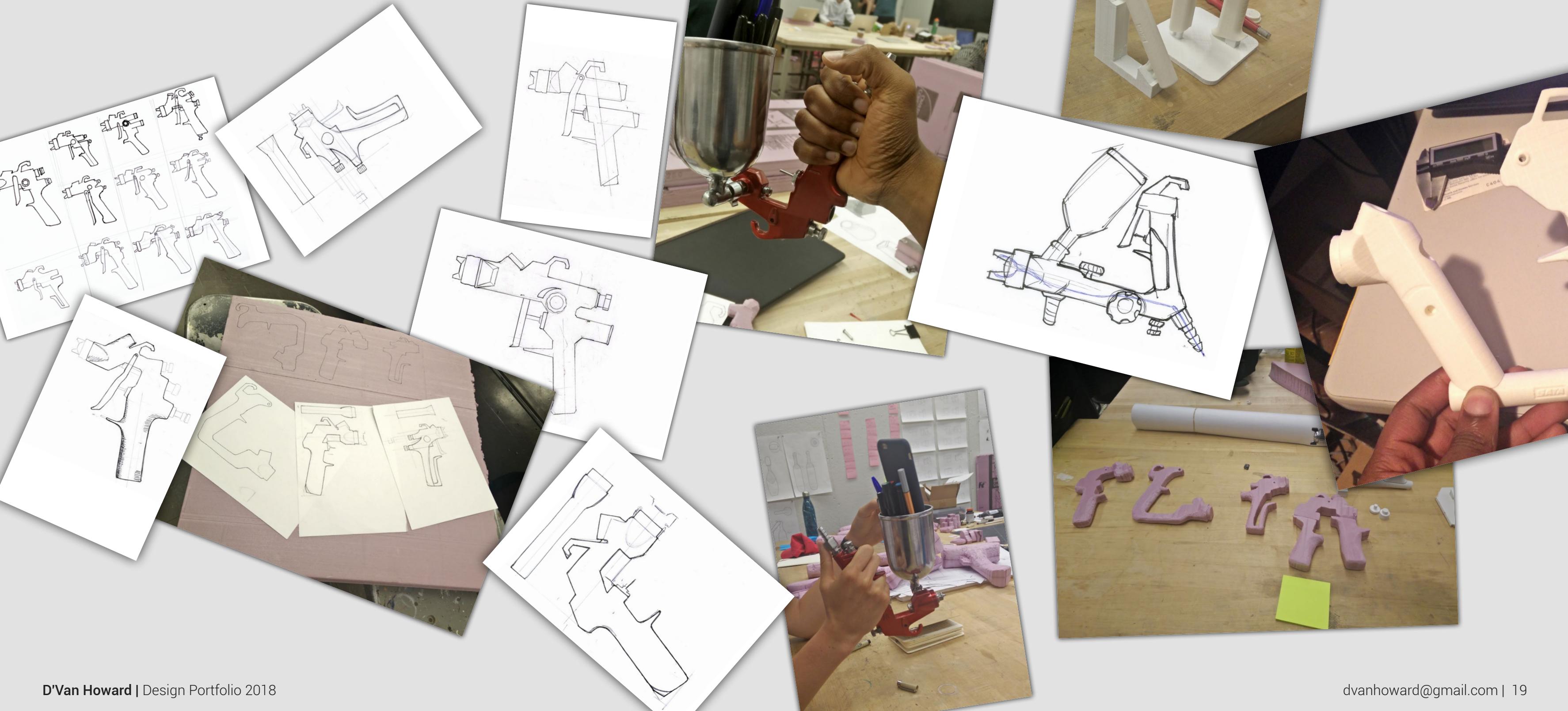
user research



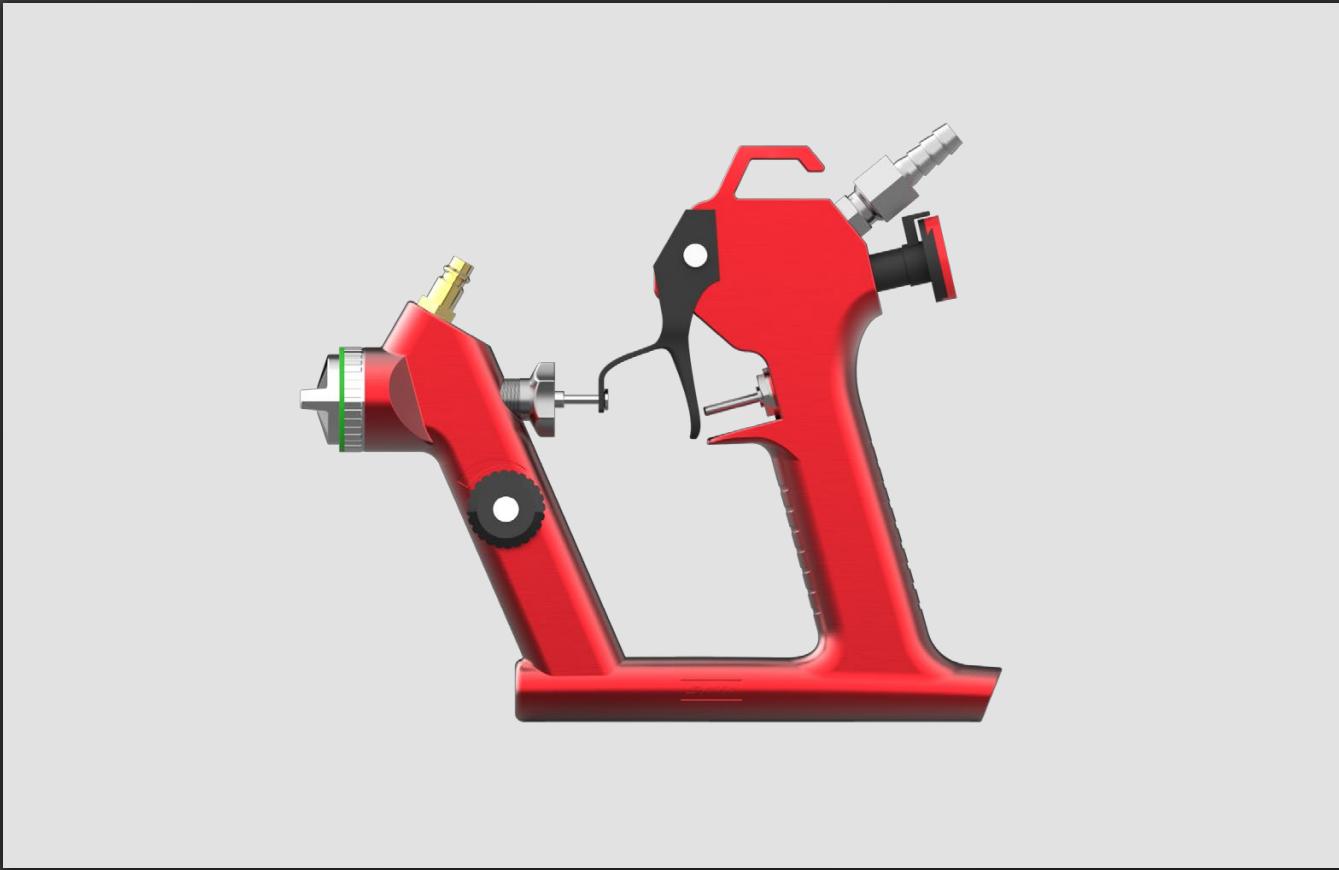
"Good ergonomics,
less noise, speed, and
performance above
all"

The job of an automotive paint technician is a highly skilled job. Paint technicians require 3-5 years of training to enter the field, and because of the nature of the work, quality is key. These skilled technician are tasked with replicating the quality of finish that is normally achieves by advanced automotive factory robots.

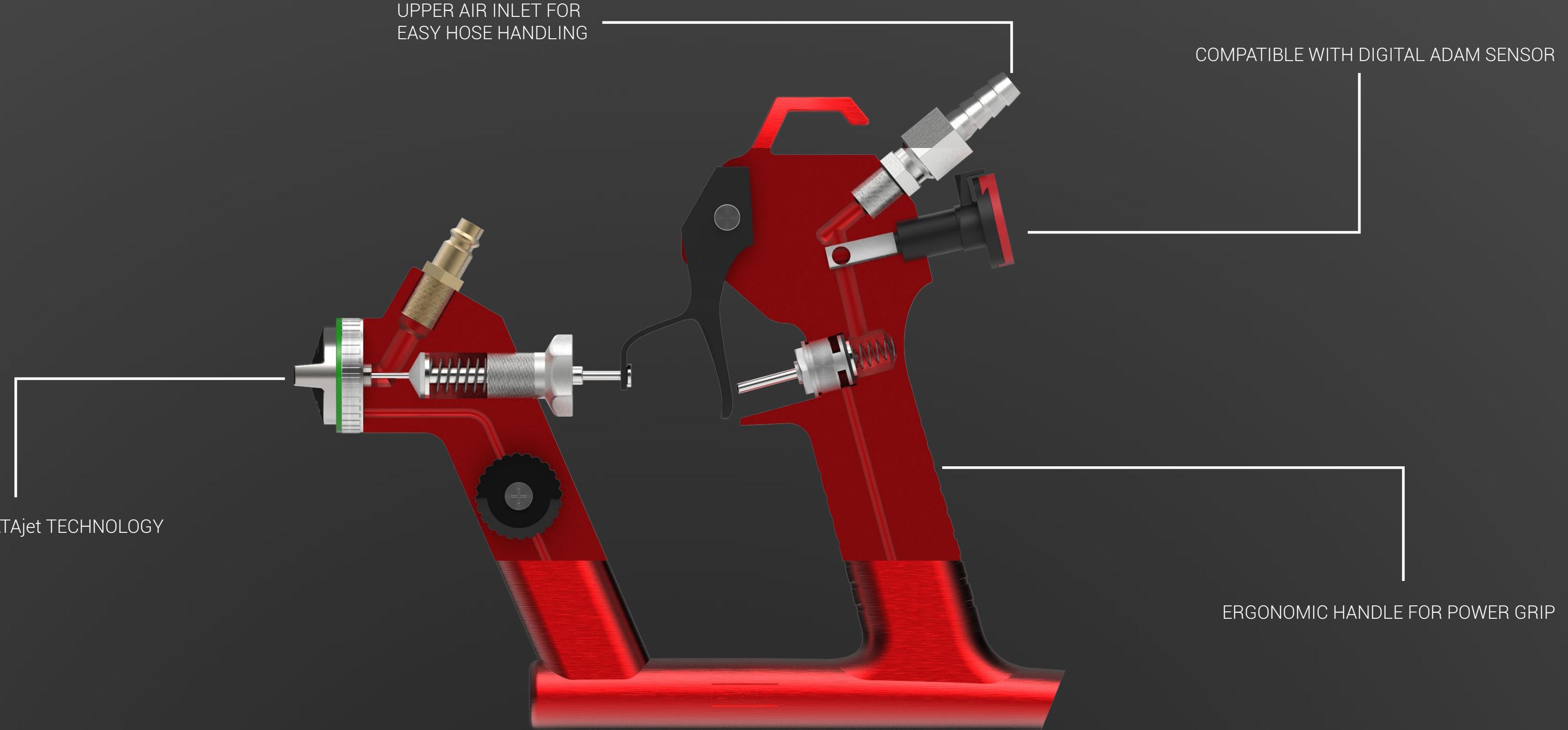
iterations



final form



features



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.

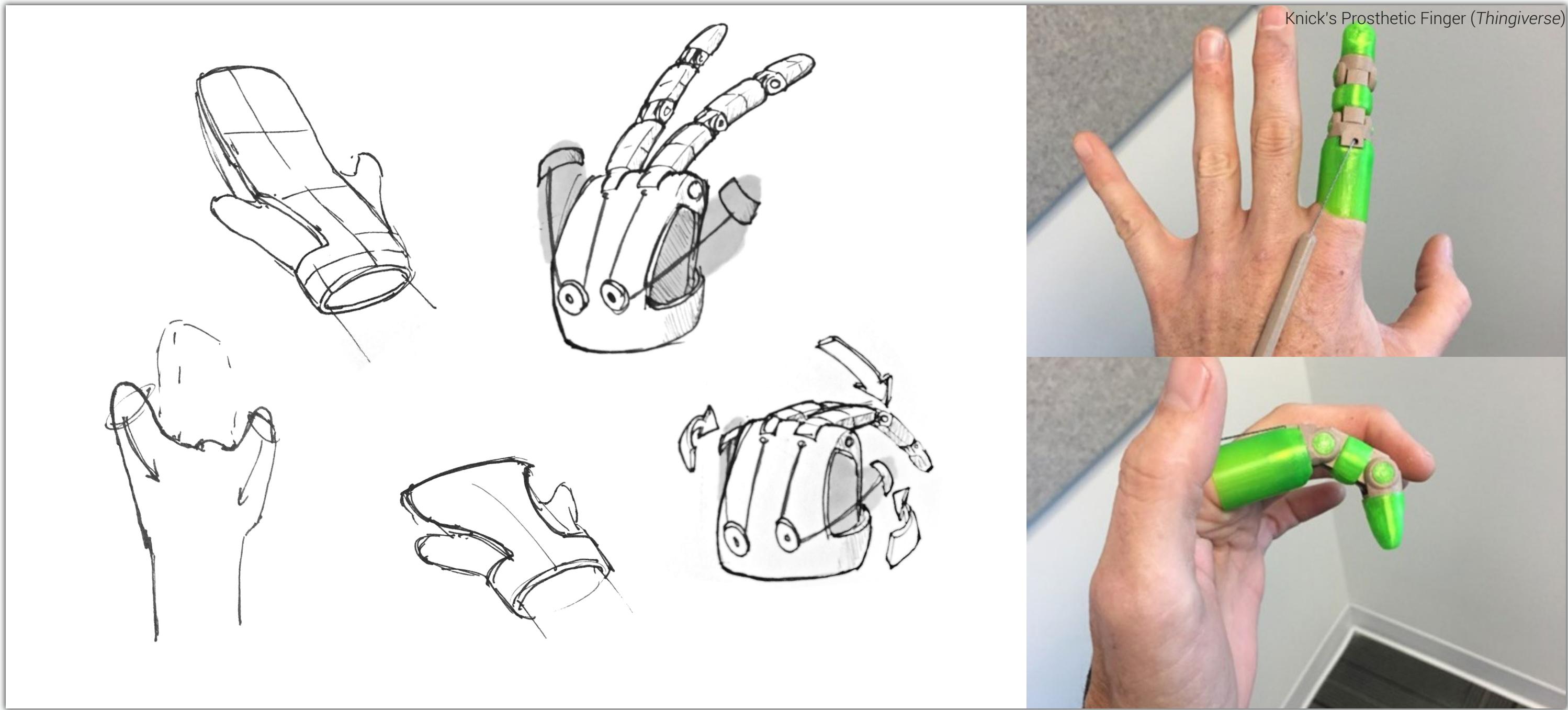




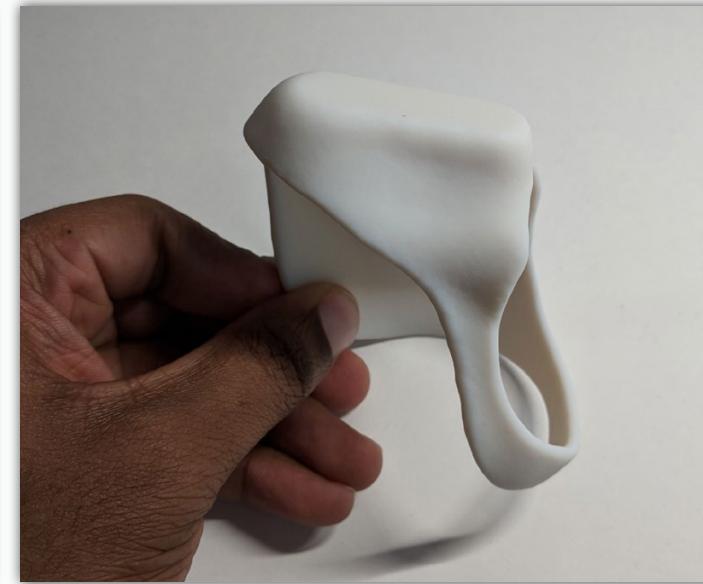
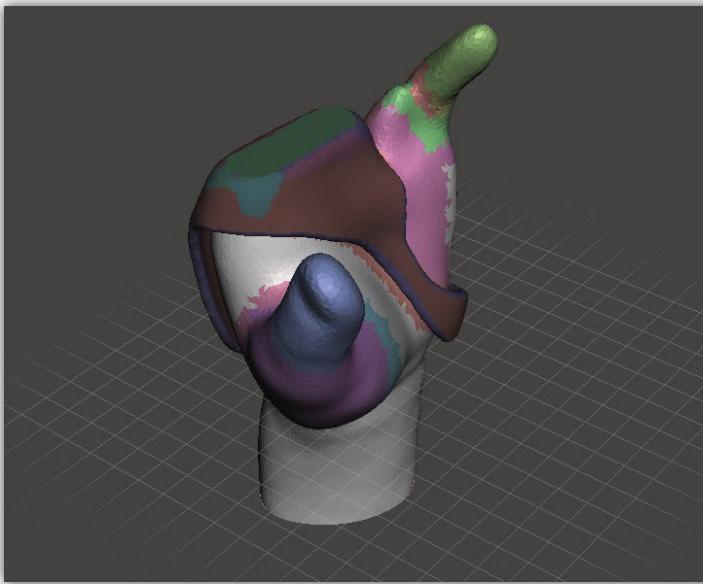
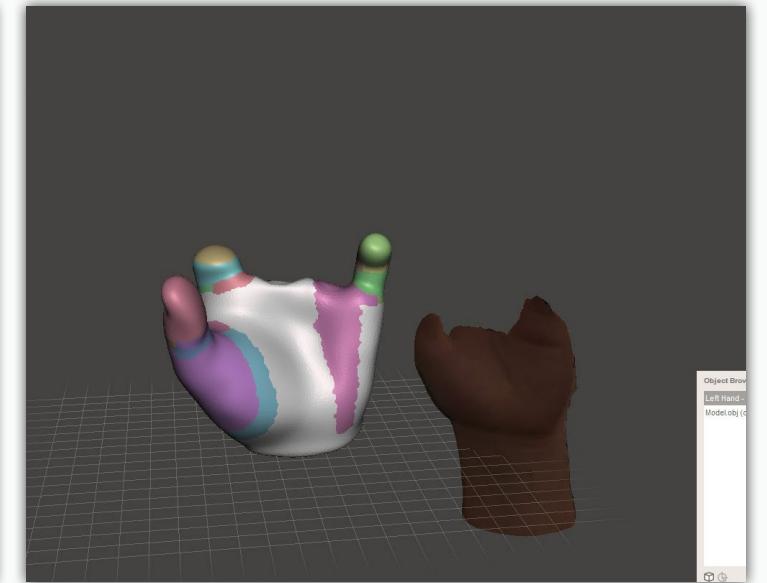
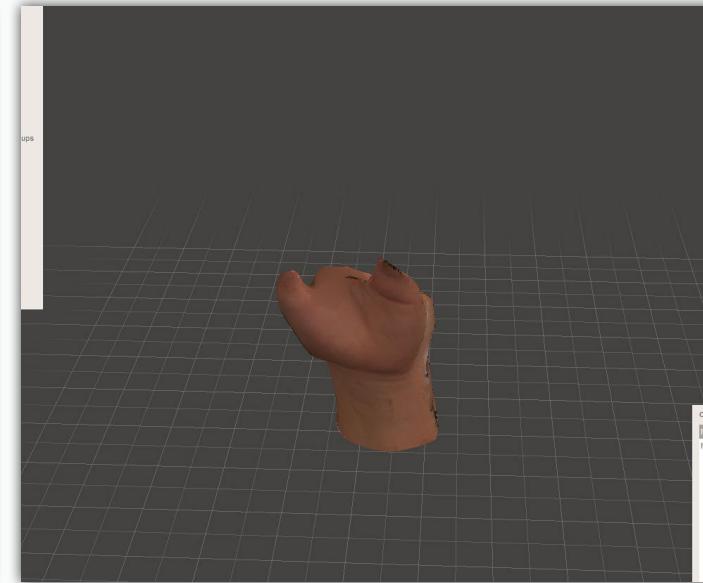
MAY WE HELP

Ethicon Volunteer Project (WIP)

sketch ideation

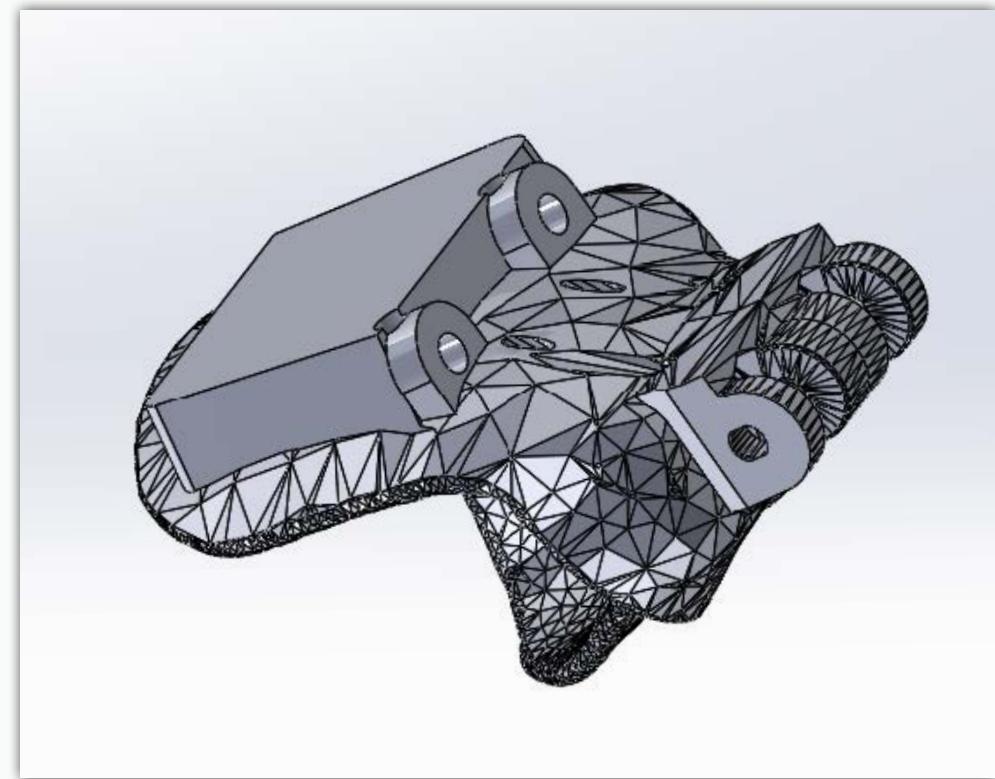
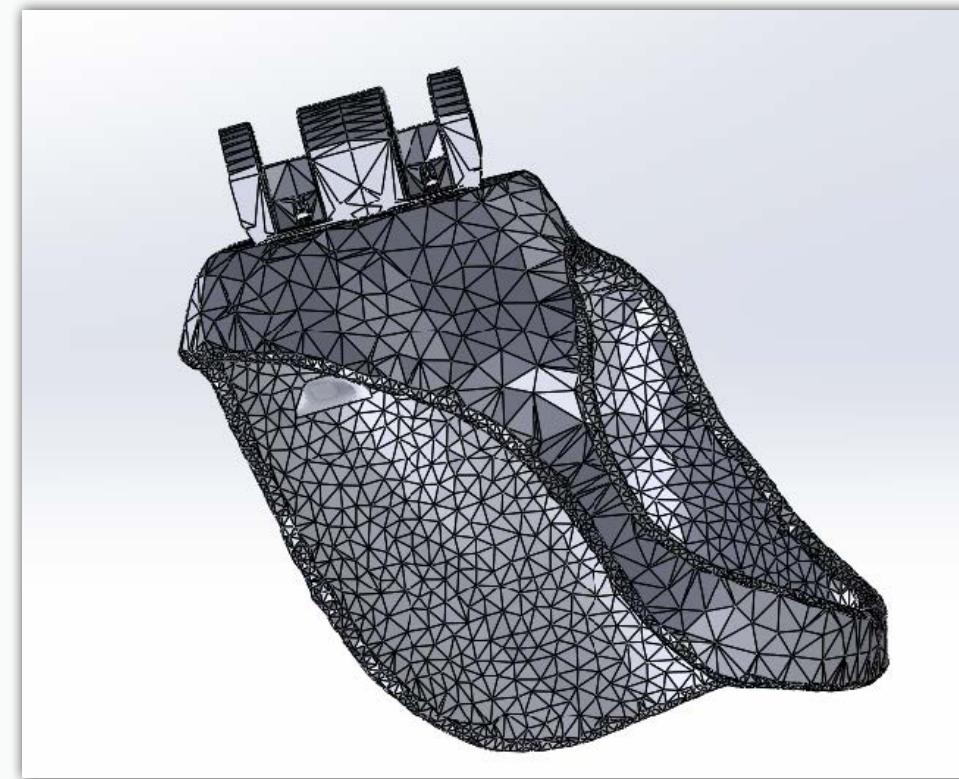


process



The most important part of a prosthesis is getting a stable attachment to the body. This process started with an attempt to get a usable model from a terrible scan, then taking a different approach by altering an anatomical model to accurately match Maddie's hand.

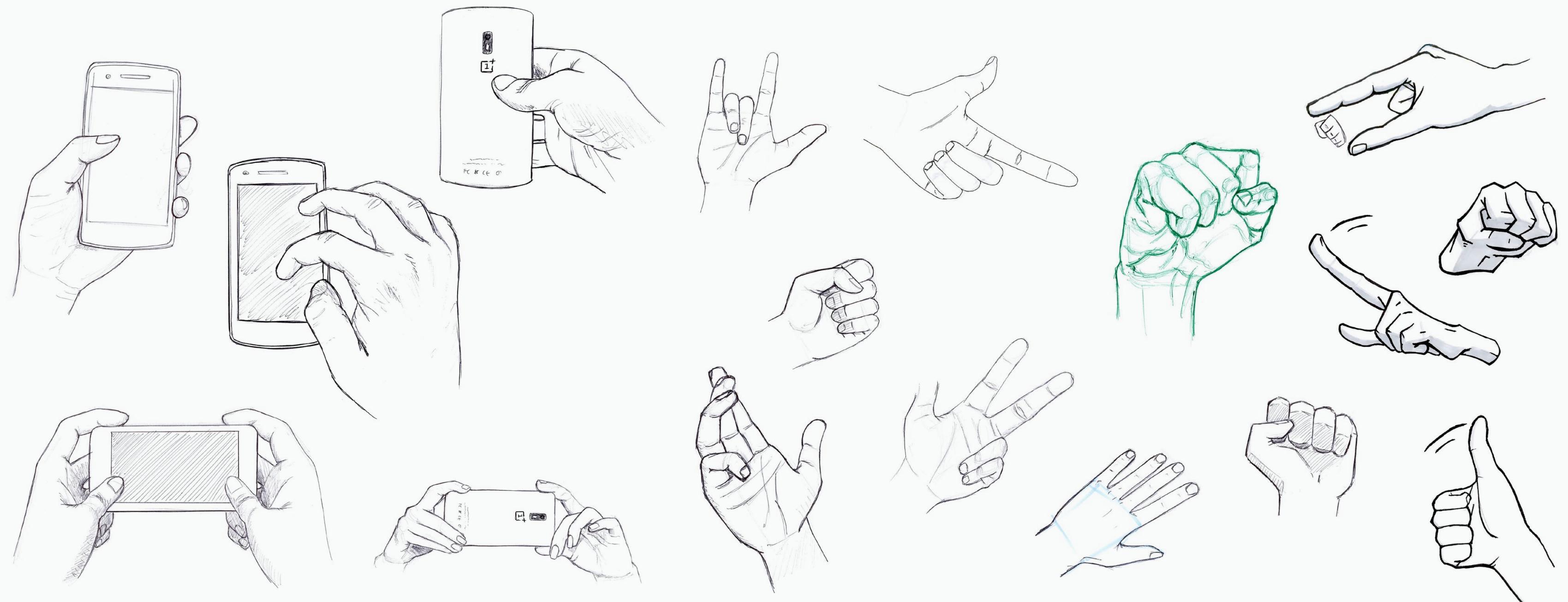
process

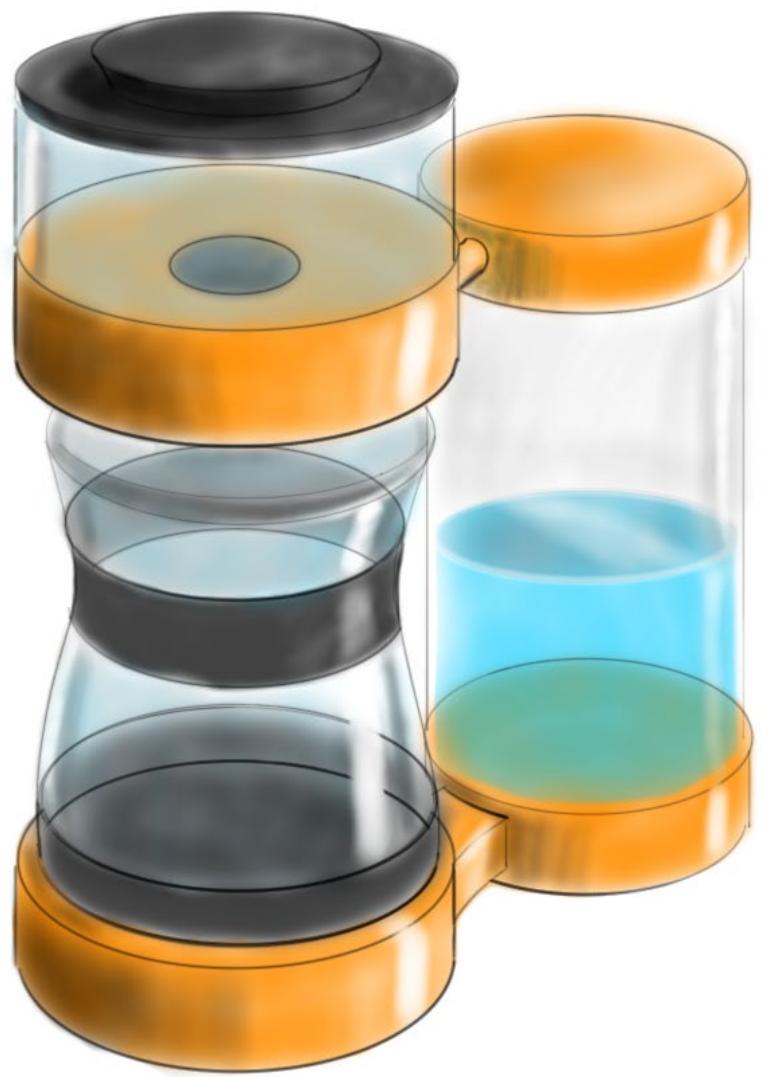


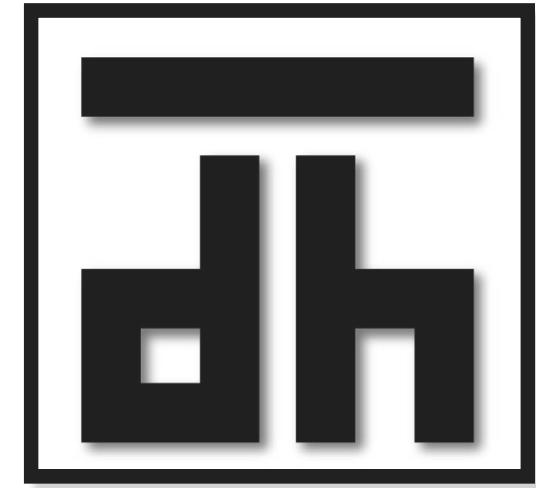
In my research I found that the e-NABLE Raptor Hand is the most widely used child prosthesis design, so I utilized the existing components to increase the compatibility with another other child with similar physical limitations.

This project is on-going so feel free to ask me anything about it!

ADDITIONAL WORK







THANKS

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