AMY TAM

INDUSTRIAL DESIGN

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EDUCATION

University of Cincinnati
Major: Industrial Design, B.S.
Class of 2019

Center Grove High School
Graduated with 4.13 GPA w/ Honors
Class of 2014

ACTIVITIES

Alpha Rho Chi (2015-present)
Active Member

IDSA (2015-present)
Active Member

FIRST Team 1741 Red Alert Robotics (2010-2014)
Over 300 hours of volunteer work relating to STEM fields

SKILLS

Digital
Rhinoceros 3D, SolidWorks, ZBrush, Adobe Illustrator and Photoshop, Sketching, Rendering, HTML/CSS

Physical
Lasercutting, Sewing, Leatherworking, Painting, Illustration, Sketching, Rendering, Prototyping

HONORS

Deans List at University of Cincinnati (2014-present)
End each semester with at least a 3.5 GPA

FIRST Team 1741 Red Alert Robotics Varsity Letter
Requires excellent academics (2.5 GPA), attendence at national competitions, year-round training sessions, dedication to volunteer work relating to STEM

EXPERIENCE

Dell EDG
Industrial Design Intern (Spring 2018)
Supported the Alienware and XPS design team with renderings, 3D models, and presentations. Created a conceptual Alienware experience and presented a scale model to management.

Hasbro
Industrial Design Intern (Summer 2017)
Created concept art and sketches for the Expressions team. Created manufacturing specs and communicated with international teams. Collaborated with marketing, engineers, and other designers.

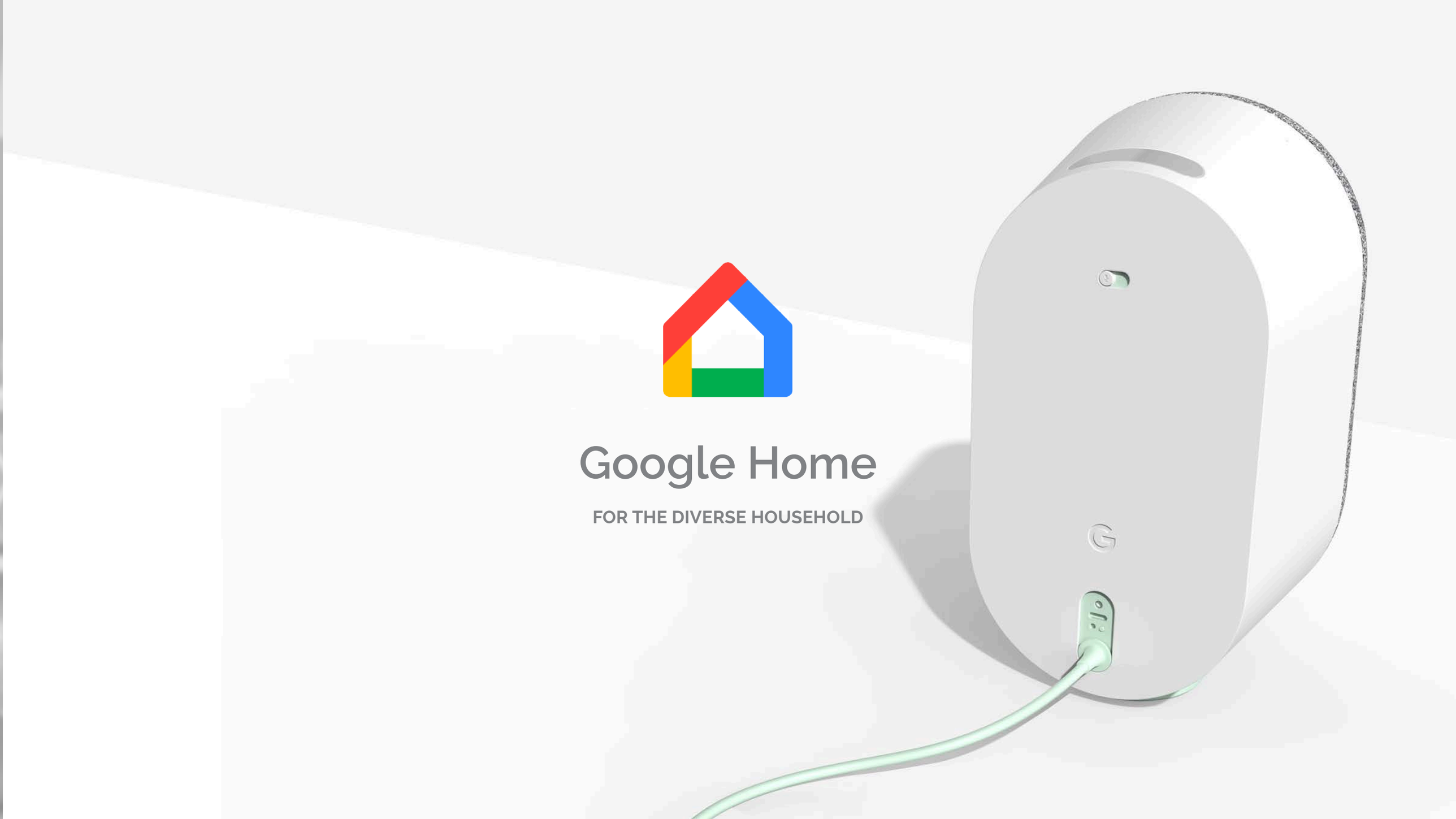
University of Cincinnati
Rapid Prototyping Center Intern (Fall 2016-present)
Operated machinery, including a laser cutter at the University of Cincinnati for incoming client jobs and managed tasks within a team. Created prototype models for student projects and faculty research.

BISSELL
Industrial Design Intern (Spring 2016)
Supported the design team in developing new products and conducted research and product testing. Participated in team presentations, sketched for product prototypes, and built models in the model shop.

317.270.4796 - tamal@mail.uc.edu - www.amytam.org

Google Home

FOR THE DIVERSE HOUSEHOLD



Let’s discuss accessibility.

Over **466 million people** worldwide are deaf or hard-of-hearing and are thus **unable to use a voice-activated assistant** as effectively as a hearing person.

Current assitive technology in Deaf homes utilitize lights, captions, and tactile solutions in place of sounds. For example, fire alarms in Deaf homes will have lights that go off whenever it detects smoke. Other devices will also flash lights if someone is at the door or if there is an incoming call.

How could accessibility options found in homes today be incorporated into Google's smart home ecosystem and make it more inclusive as a result?

Cases

Ann, 34 years old, Hearing

Ann is always looking for ways to ensure that her Deaf daughter has effective and convenient forms of communication. She is also looking to help her aging mom maintain a sense of independence in the household.

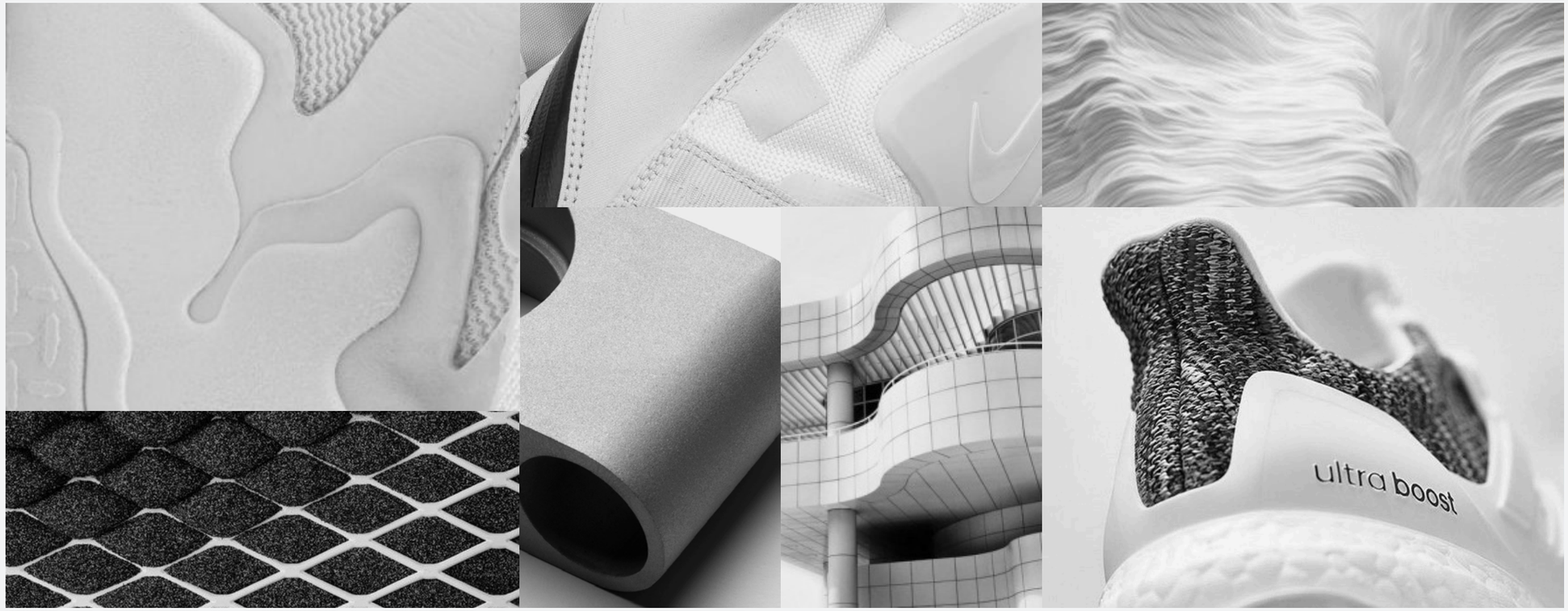
June, 67 years old, Hard-of-Hearing

June bought herself a Google Home a few years ago, but is frustrated that she can't hear the audio clearly anymore due to increased hearing loss over the years. She has recently stopped using her Google Home altogether.

Juliana, 10 years old, Deaf

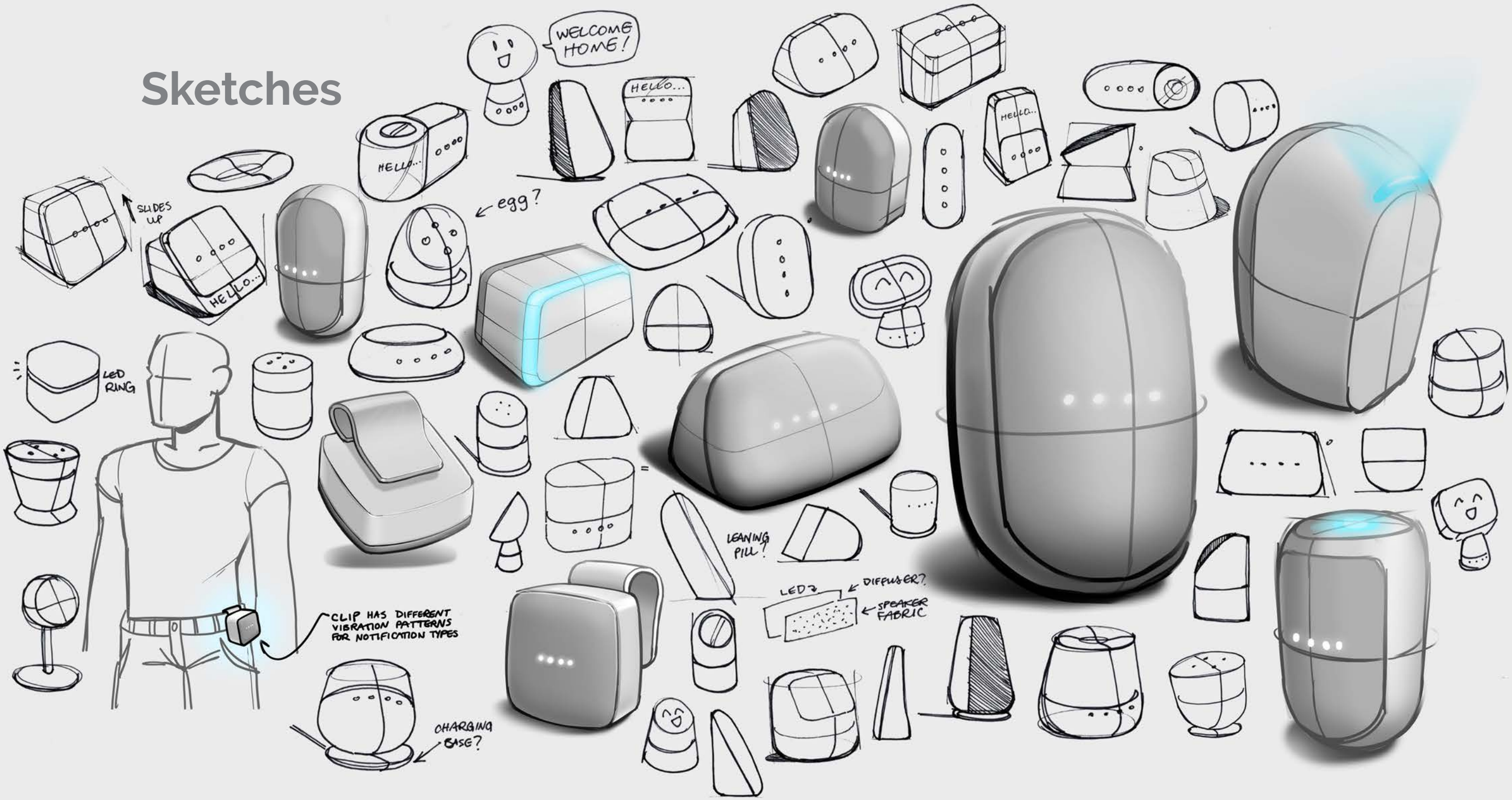
Her parents bought a Google Home recently, and Juliana has shown interest in using her family's new gadget. However, since the device has mostly audio cues and no accessibility options, she has little to no use for it.

Inspiration



The product should naturally blend into the user's home, but still be an approachable object to interact with.

Sketches


WELCOME HOME!
HELLO...
HELLO...
HELLO...
HELLO...
SLIDES UP
egg?
LED RING
LEANING PILL?
LED
DIFFUSER?
SPEAKER FABRIC
CLIP HAS DIFFERENT VIBRATION PATTERNS FOR NOTIFICATION TYPES
CHARGING BASE?

The world just got bigger.

Google Home now includes more accessibility options.

Captioning

Short-throw projector displays captions on the surface behind it.

Expression

An LED within the projector creates expressive lighting.

Microphone

Far-field microphones support voice recognition.

Expressive Lighting

Alerts

Life-threatening or urgent notifications will display with red lighting.

Awareness

Phone calls and doorbell alerts will be displayed with green lighting.

Reminder

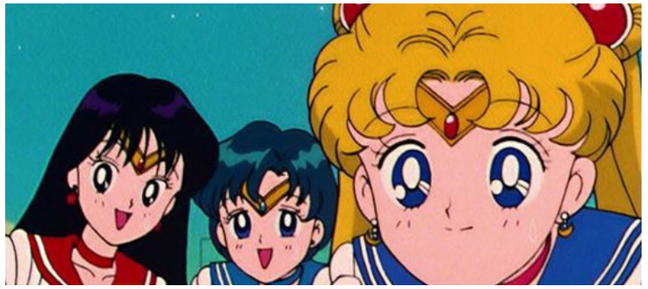
Calendar reminders and appointments are displayed with yellow lighting and will project words above the Google Home.

Time and Date

By simply clapping twice, Google Home will display the time and date.


Pick up packages at
the post office at
3:30PM tomorrow
REMINDER

sushi
domodachi!

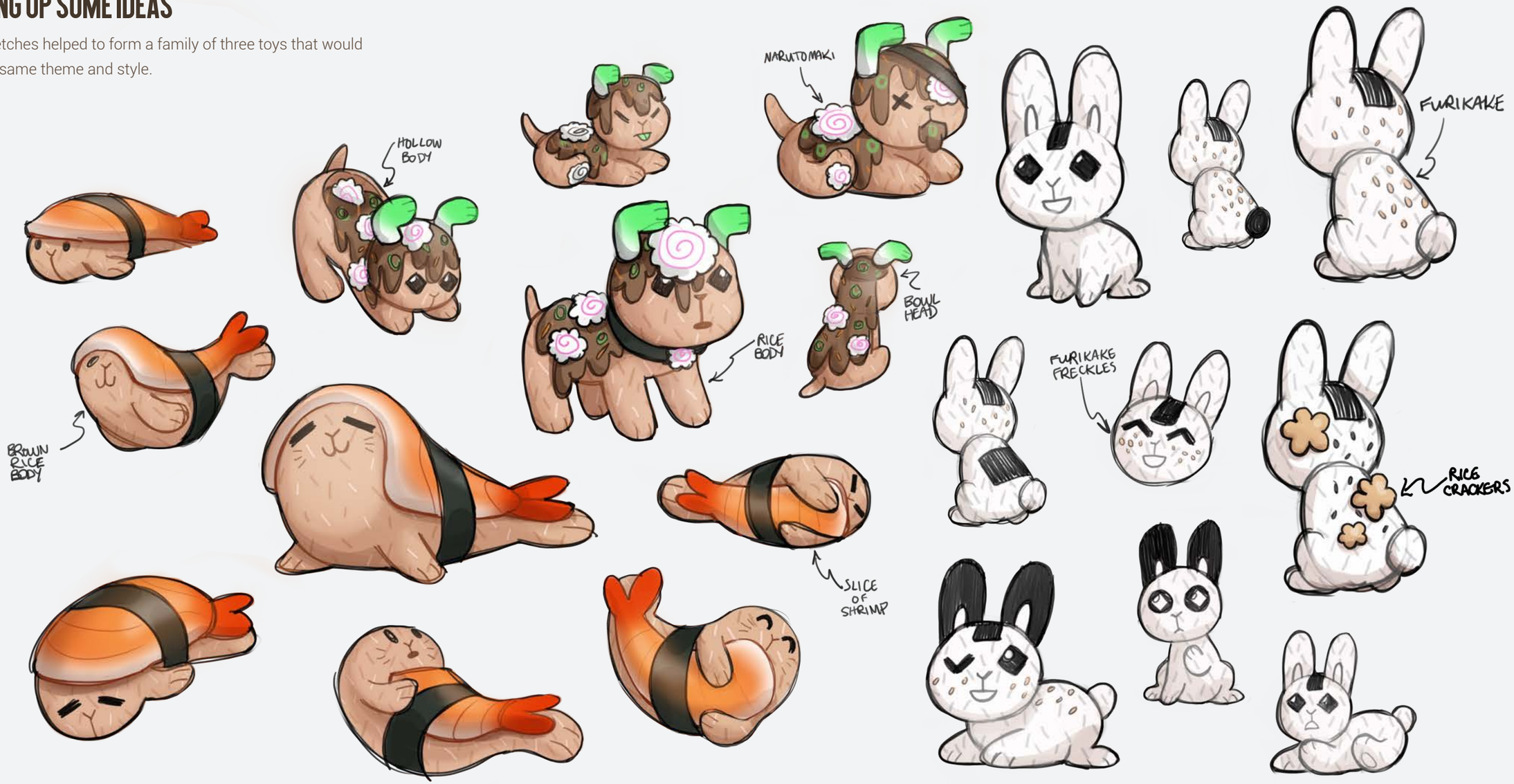


PLAYFUL EXPRESSIONS

Soft, simple shapes in both food and other vinyl toys convey an inviting feeling to be interacted with.

COOKING UP SOME IDEAS

Initial sketches helped to form a family of three toys that would have the same theme and style.



ONIGIRI BUNNY
THE LAZIEST SUSHI BUDDY

Onigiri is an easy-going sushi animal. She kind of doesn't do anything but watch TV and read manga. Onigiri needs to get a job.

"Can you hand me the remote?" - Onigiri

MISO PUPPY
BEST DRESSED SUSHI BUDDY

Sassy and voted "Most Likely to become a Diva" in high school, Miso can be found relaxing in a steamer or rice cooker. No, she will not roll over or do tricks for you.

"Don't touch my leeks!" - Miso

SASHIMI SEAL
FRIENDLY NEIGHBORHOOD SUSHI BUDDY

He's that one friend who's always cold. You will never find him without his iconic shrimp blanket. He claims that he is always cold because he was born in a freezer.

"Does this belt make me look fat?" - Sashimi

MUG SHOTS

The models were sculpted in Zbrush and would later be polypainted in the same program to create a printable UV map.

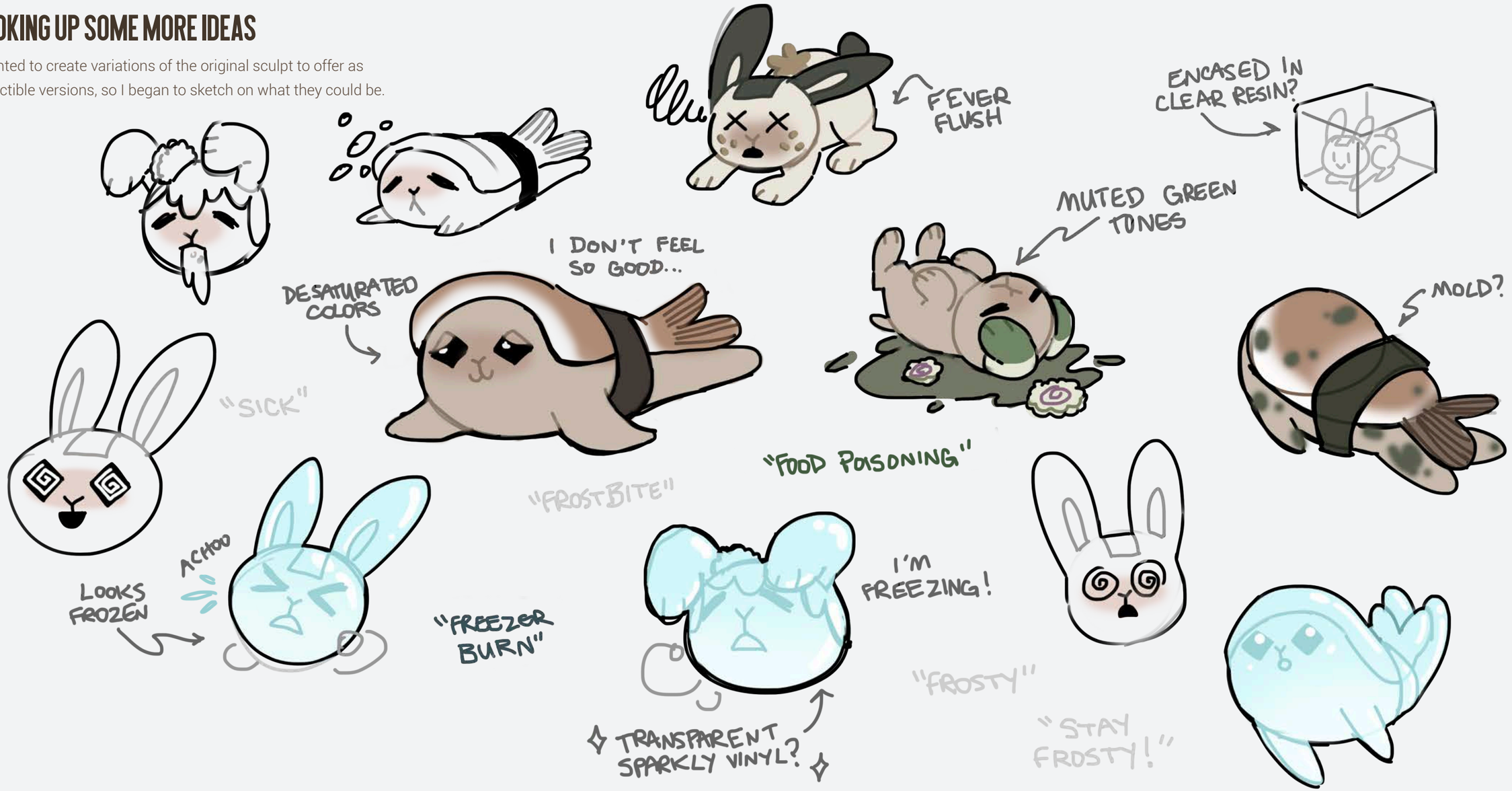
SASHIMI SEAL

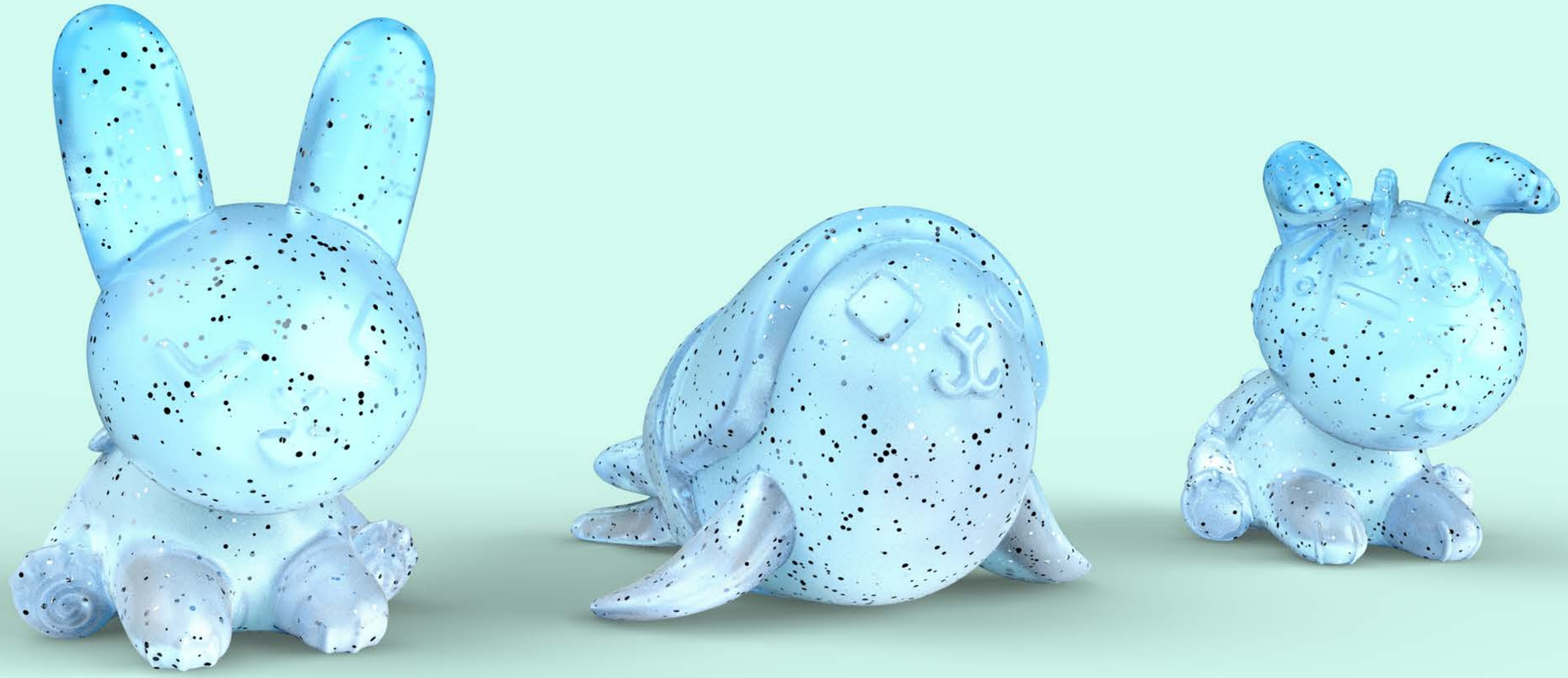
ONIGIRI BUNNY

MISO PUPPY

COOKING UP SOME MORE IDEAS

I wanted to create variations of the original sculpt to offer as collectible versions, so I began to sketch on what they could be.





FREEZER BURN

Transparent sparkly blue to white gradient vinyl creates the “Freezer Burn” chase variation.

FOOD POISONING

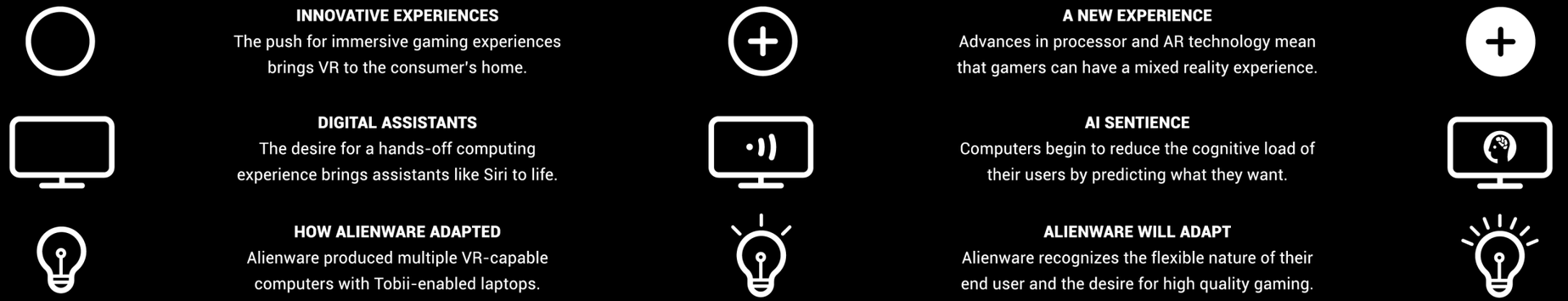
This variation is a playful representation of “food poisoning.”
The three characters battle a bout of sickness.


STYLE
BRAND
HOW TO STYLE YOUR BRAND
AMPHOTO BOOKS


sushi
domodachi!


ASCEND
SPRING 2018 DELL INTERNSHIP PROJECT
ALIENWARE

A CHANGING LANDSCAPE



INNOVATIVE EXPERIENCES
The push for immersive gaming experiences brings VR to the consumer's home.

DIGITAL ASSISTANTS
The desire for a hands-off computing experience brings assistants like Siri to life.

HOW ALIENWARE ADAPTED
Alienware produced multiple VR-capable computers with Tobii-enabled laptops.

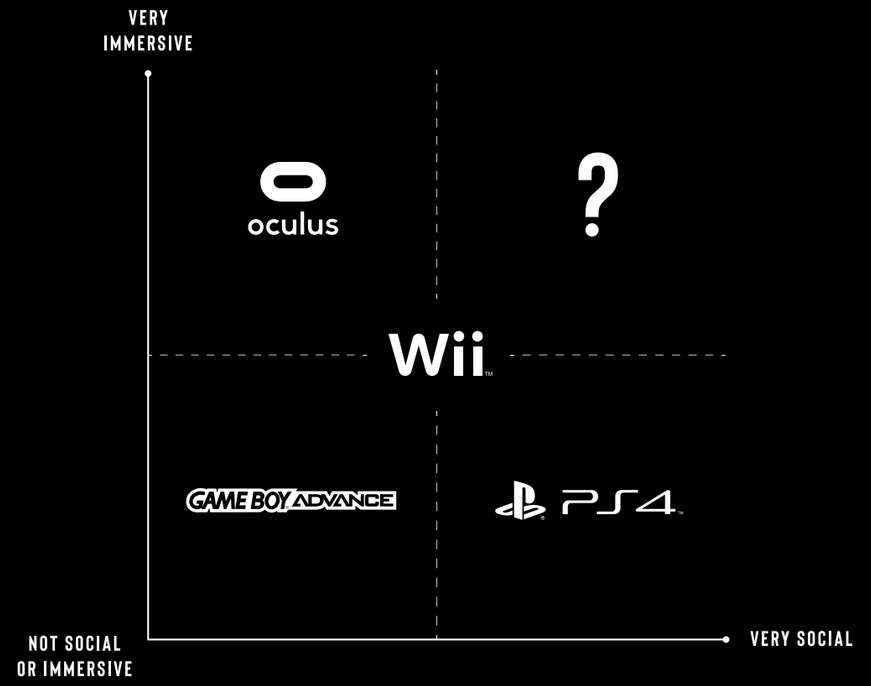
A NEW EXPERIENCE
Advances in processor and AR technology mean that gamers can have a mixed reality experience.

AI SENTIENCE
Computers begin to reduce the cognitive load of their users by predicting what they want.

ALIENWARE WILL ADAPT
Alienware recognizes the flexible nature of their end user and the desire for high quality gaming.

2010 NOW 2030

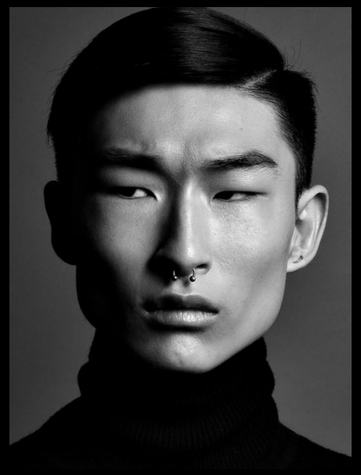
THERE IS AN OPPORTUNITY FOR US TO INNOVATE



AS GAMING BECOMES MORE IMMERSIVE, IT'S BECOMING LESS SOCIAL


HOW DO WE CREATE AN IMMERSIVE
GAMING EXPERIENCE ON A PLATFORM
THAT EMPOWERS GAMERS TO SHARE?

USERS



ALLAN, MALE, 28

Allan is a well-known Twitch Partner and frequently upgrades his streaming equipment to deliver high quality captures of his video games. His fans love how he interacts with them.

JOYCE, FEMALE, 23

Joyce aspires to be a popular streamer someday, but has had trouble with learning how to use the required software while putting on a good show for her growing following.

WE NEED TO FIND A SOLUTION THAT IS INTUITIVE TO JOYCE BUT POWERFUL ENOUGH FOR ALLAN TO USE TO STREAMLINE HIS WORKFLOW

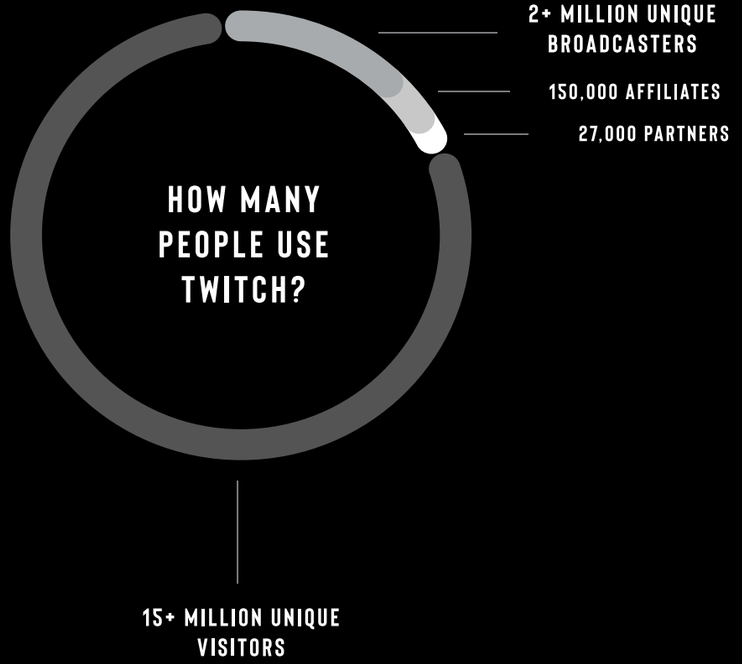
USER STUDY

All users were given the same guided survey. The purpose of the survey was for low-familiarity Twitch users to identify any pain points in the livestreaming process. Each survey took about an hour to complete.

Results from the user study concluded that all participants had a high amount of difficulty with using the broadcasting software despite it being a necessary step in the streaming process. From this, I concluded that the current process is prohibitively difficult for beginners to learn and enter. Participants became increasingly frustrated as the user study continued.

I then interviewed the streamers in the Alienware Twitch Studio to get some insight as to what their experiences were like as new Twitch streamers and to observe how a professional stream is run. They all agreed that learning how to multitask while live was difficult at first, and that the ecosystem was not necessarily friendly to newcomers.

Going forward, I would like to do some further study into the motivations behind why people stream, and why people like to observe other people play games. I would also like to explore why VR games are not popular to stream.



INSPIRATION

BOLD

DARING HEROICS

Using the best screen and processor technology, we will deliver the highest quality immersive experience.

INTELLIGENT

A SENTIENT ALLY

A reactive platform optimizes your workflow so that you can spend more time playing and less time fixing settings.

FEARLESS

AN UNAPOLOGETIC STANCE

Gaming rigs are moving away from living in the corner and demand to be celebrated in the middle of the room.

UNIFY

VIRTUOUS PLATFORM

Connect people effortlessly and intuitively. Let human interactions be natural and take center stage.

NATURAL

IT'S JUST INSTINCT

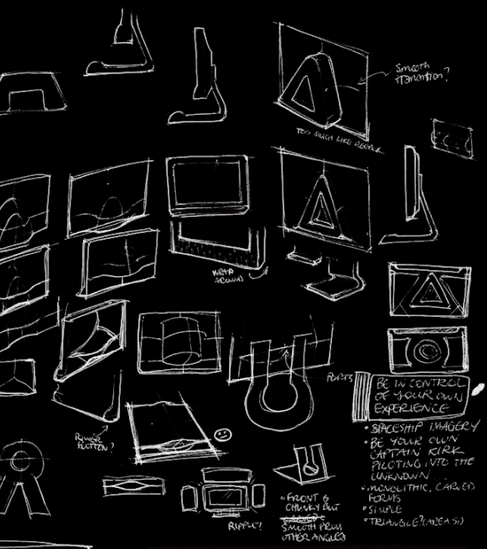
The user's experience should be the first priority. It should be simple and intuitive; even for new users.

EXTRAORDINARY

UNMATCHED IN EVERY WAY

Unwilling to compromise, we will deliver the best possible social and immersive gaming experience.

EXPLORATION



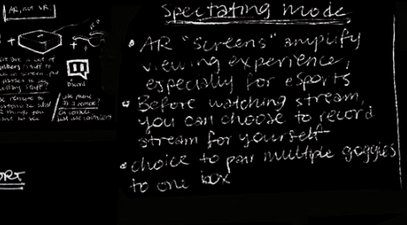
ED FORMS
TUFF THAT'S NOPULAR → UTILITARIAN

COMBINE FOR IMMERSIVE EXPERIENCE
MIX BETWEEN DESK AND GAMING POD

IN THE FUTURE, GAMING RIGS ARE MORE PROMINENTLY DISPLAYED. IT'S MORE COMMON TO HAVE A "GAMING ROOM."

PLANETARIUM 360 VIDEO GAMING POD
WHAT IF ALIENWARE SOLD A ROOM?

AMER/VIEWER ⇒ SEAMLESS TRANSITIONS ⇒ ACCOMPLISHED WITH PROFILES

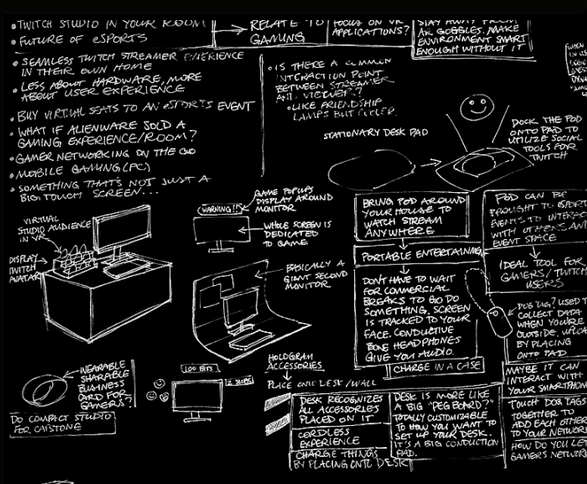


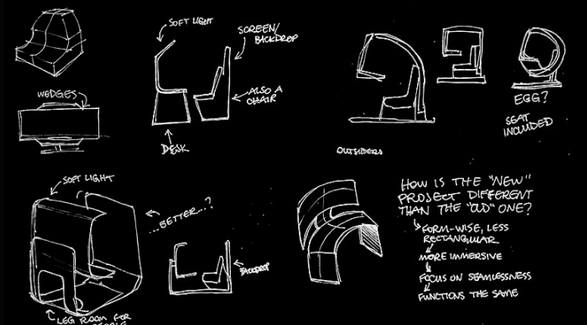
Spectating mode
- AR "screens" amplify viewing experience, especially for eSports
- Before watching stream, you can choose to record stream for yourself
- choice to pan multiple peoples to one box

Streaming mode
- AR "screens" help you keep track of live stats and chat while broadcasting, box saves your stream as a recording

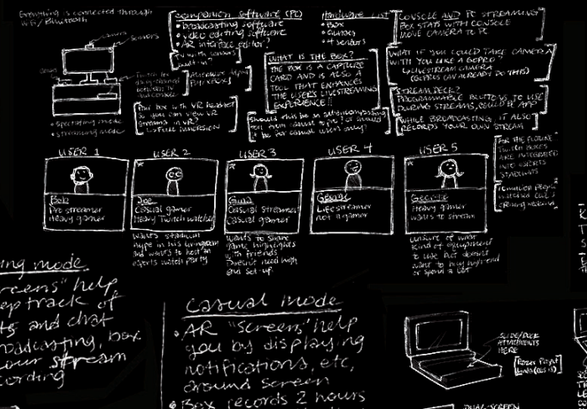
Casual mode
- AR "screens" help you by displaying notifications, etc, around screen
- Box records 2 hours of gameplay at a time and you choose how much to save or share to social media
- Can face cam with friends on VR screen?

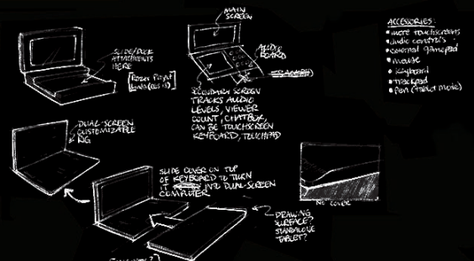
- LIVESTREAMING TODAY IS A VERY SHARABLE EXPERIENCE, BUT IT IS NOT AN IMMERSIVE EXPERIENCE FOR EITHER THE STREAMER OR THE VIEWER.
  - WHAT IS THE NEXT STEP FOR LIVESTREAMING?
  - 10 - 30 YEARS INTO THE FUTURE
- GAMERS ARE ALWAYS LOOKING FOR NEW WAYS TO IMMERSE THEMSELVES INTO THEIR GAMES
- WHAT ARE ASPECTS OF LIVESTREAMING THAT COULD

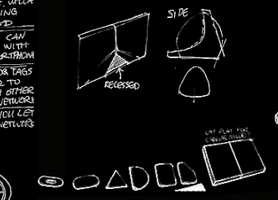




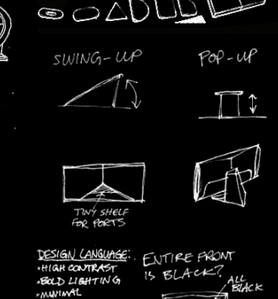
HOW IS THE "NEW" PRODUCT DIFFERENT THAN THE "OLD" ONE?
- FORM-WISE, LESS RECTANGULAR
- MORE IMMERSIVE
- FOCUS ON SEAMLESSNESS
- FUNCTIONS THE SAME





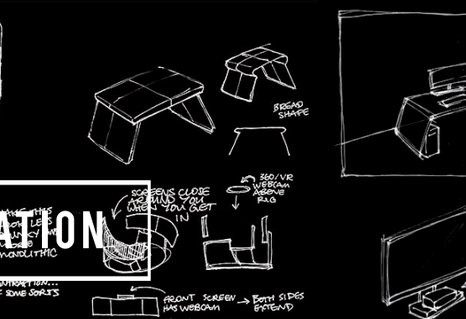


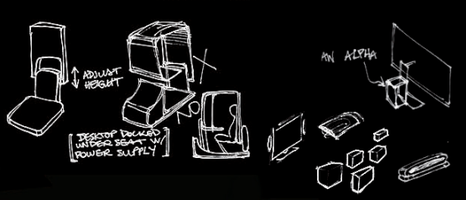
DESIGN LANGUAGE:
- HIGH CONTRAST
- BOLD LIGHTING
- MINIMAL
- SCULPTED
- CLINICAL
- ANGLED SECTIONS
- SMOOTH (BUT SOMETIMES JAGGY)
- WEDGE SHAPE

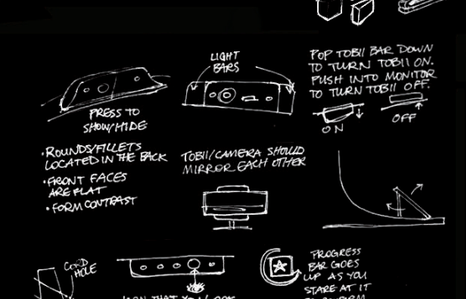


KEYBOARD W/ SPECIAL KEYS TO EDIT/INTERACT? SPECIAL MOUSE?
EXTENSION? IF I TWIST HAVE TIME TO DO SIGN

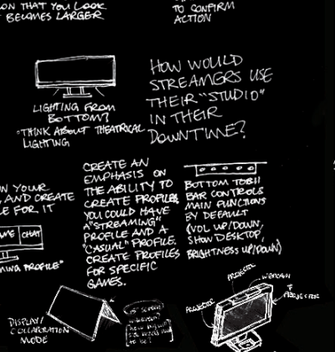
ALIENWARE + TWITCH RELATIONSHIP WOULD BE SIMILAR TO THE ALIENWARE + TOBII ONE (HARDWARE INTEGRATION)



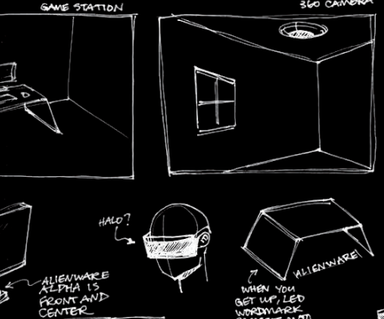


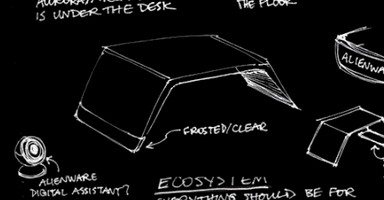


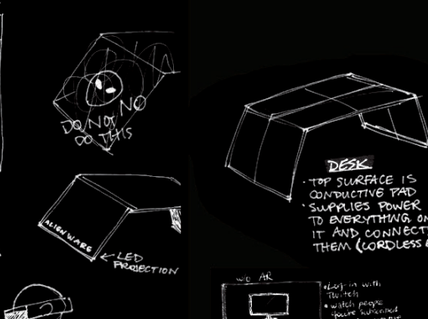
PARTITION YOUR SCREEN, AND CREATE A PROFILE FOR IT

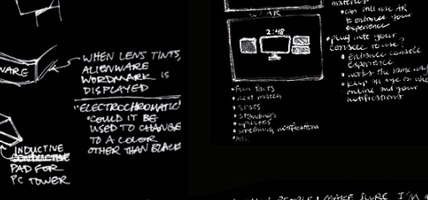


PROBLEM STATEMENT FIRE
- HOW DO YOU MAKE THE GAMER'S LIFESTYLE SIMPLE, SHAREABLE, AND IMMERSIVE?
- AUTONOMOUS SYSTEM THAT GIVES YOU UPDATES
- WEARABLES ARE GOING EXTINCT
- FUTURE OF MULTIPLAYER
- ~~FUTURE OF GAMER NETWORKING~~
- ~~GAMER SOCIAL NETWORKING?~~
- INCREASE INTERACTIONS
- PROJECTORS GET RID OF NEED FOR AR GLASSES
- GET RID OF WEARABLE
  - USE TOBII TO SELECT ACTIONS
- MAKE EXPERIENCE SEAMLESS
  - REACHING OVER TO PRESS A BUTTON INTERRUPTS EXPERIENCE
- TABLE IS ALSO AN INTERFACE?
- GLASSES ARE JUST FOR VR.



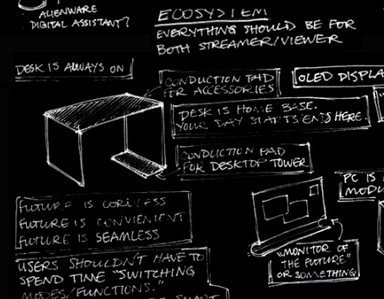


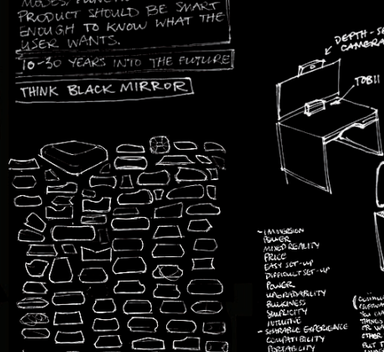




ECOSYSTEM
EVERYTHING SHOULD BE FOR BOTH STREAMER/VIEWER

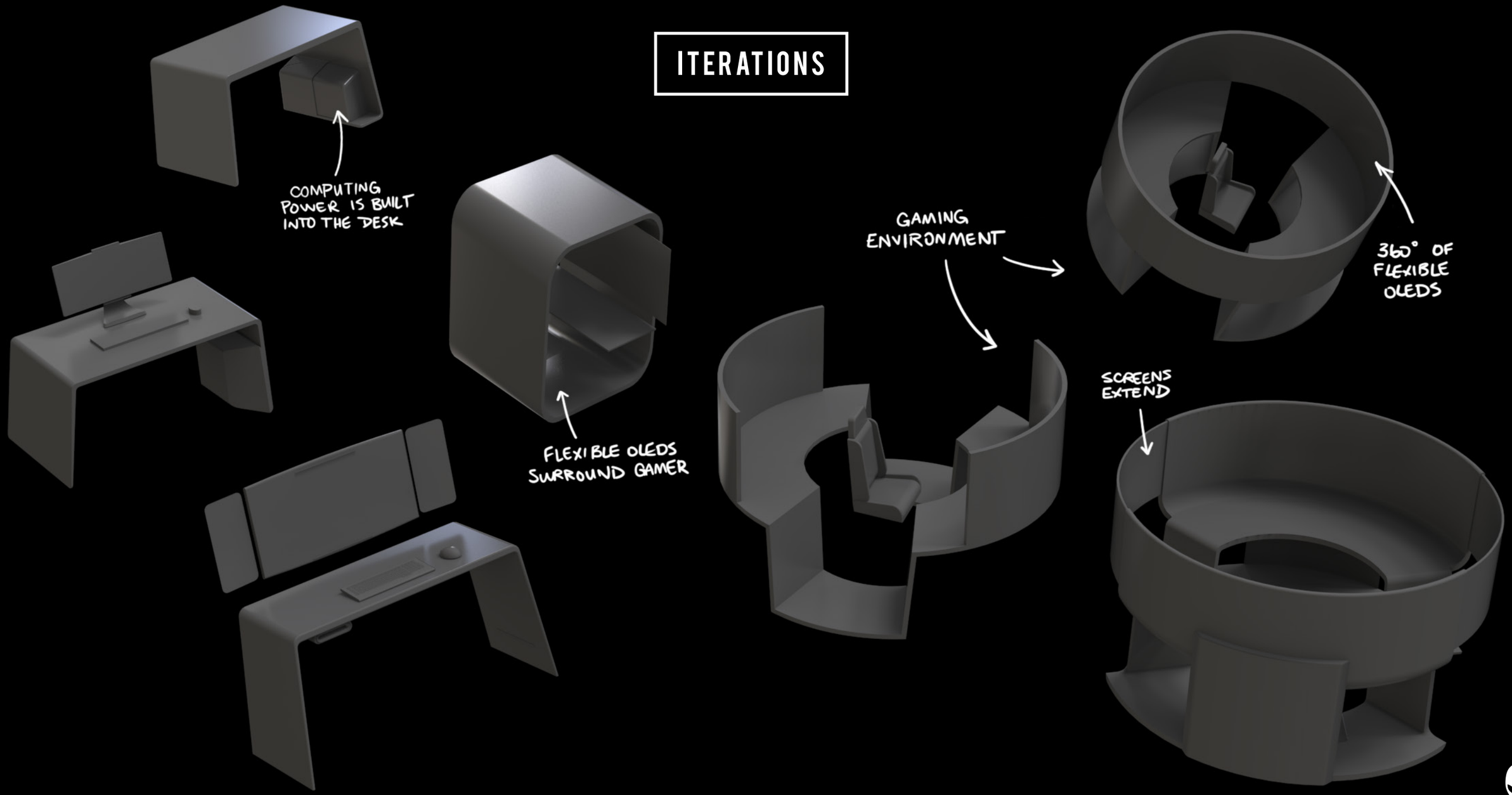
IDENTIFY MARKET GAP | HOW MANY PEOPLE USE TOBII? | MAKE SURE IT'S NOT JUST COMBINING EXISTING PRODUCTS.
YOU ARE THE CAPTAIN OF YOUR OWN SHIP AND THE POSSIBILITIES ARE ENDLESS (SPACE THEMED)





- PROBLEM
  - GAMING IS ALWAYS FUN WITH FRIENDS
  - GETTING STARTED WITH LIVESTREAMING IS DIFFICULT
  - VIEWERS WANT TO BE MORE IMMERSED INTO THE CONTENT THAT THEY WATCH
  - SHARING YOUR GAMEPLAY SHOULD BE JUST AS FUN AND

ITERATIONS

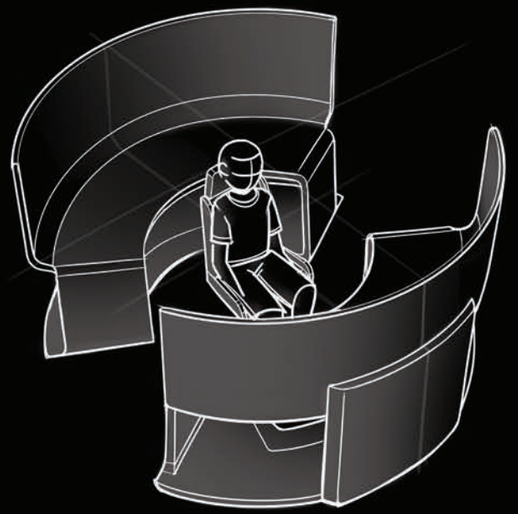

COMPUTING POWER IS BUILT INTO THE DESK
FLEXIBLE OLEDS SURROUND GAMER
GAMING ENVIRONMENT
360° OF FLEXIBLE OLEDS
SCREENS EXTEND

360° OF TRUE IMMERSION

STORYBOARD

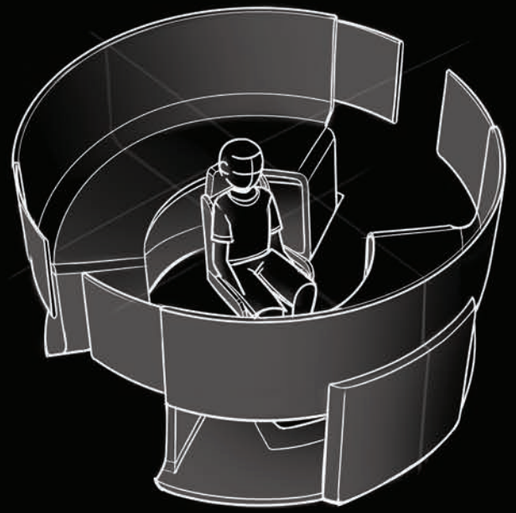
ENTERING THE ENVIRONMENT

1 Starting up Ascend is as easy as sitting down. Its depth-sensing cameras will detect your presence and start loading your personal profile.



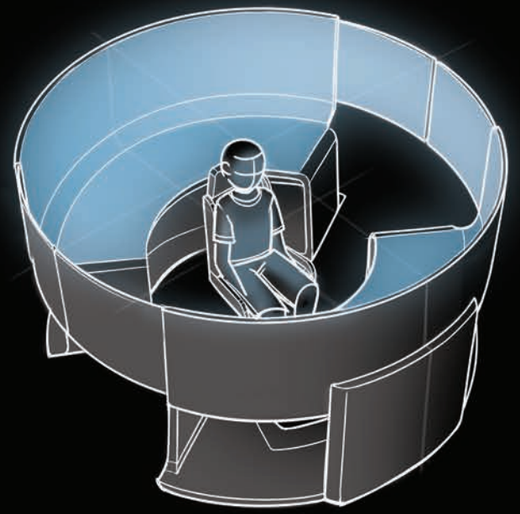
ACTIVATE SENTIENCE

2 Once Ascend is powered on, the secondary screens begin to close around the user. Enjoy the ultrawide screen without the inconvenience of bezels.

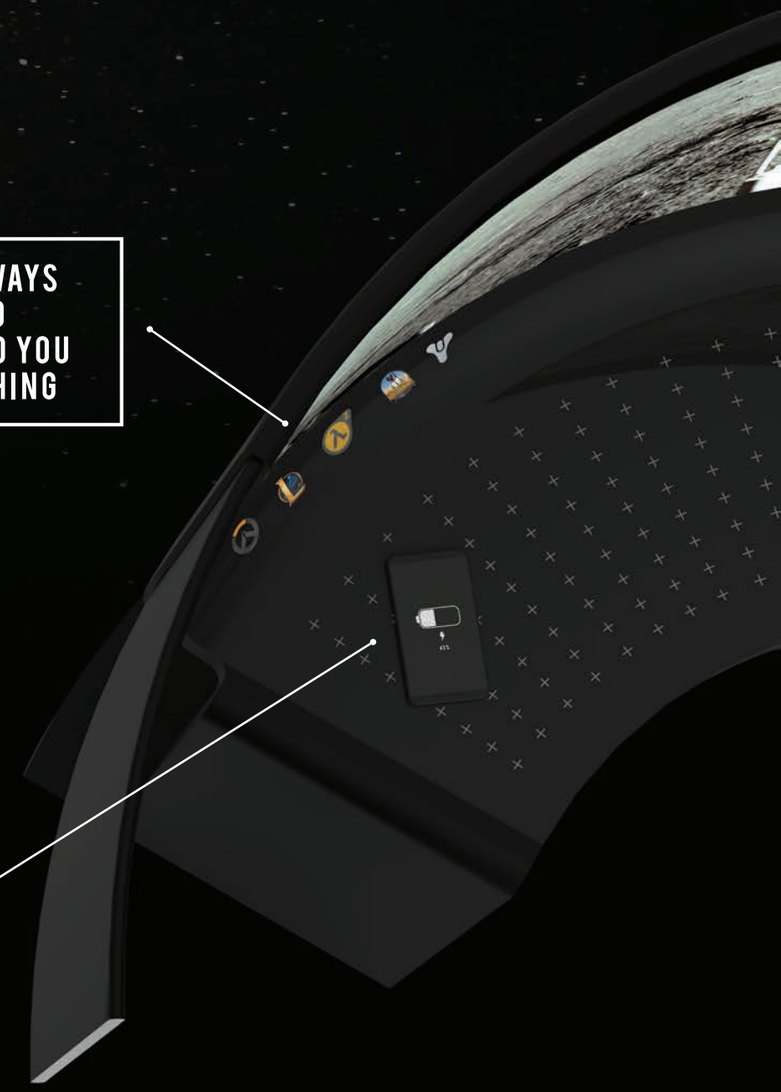


READY TO LAUNCH

3 When the environment is complete, Ascend will analyze your behavorial patterns and adapt how it runs to your habits to create the perfect workflow for you.



TASKBAR IS ALWAYS VISIBLE AND UNOBTRUSIVE SO YOU DON'T MISS A THING



CHARGE YOUR DEVICES ON ASCEND'S BUILT-IN INDUCTIVE CHARGING PAD

EXPERIENCES

BROADCASTING

Focus your time on putting on a good show instead of worrying about if something will go wrong. Ascend will continually self-monitor your audio and visual output to make sure that your broadcast runs smoothly. Use the screen behind you as a backdrop for your webcam picture.

SPECTATING

Feel the eSports hype from the comfort of your own home in your own personal stadium. Ascend's ultrawide screen allows you to spectate from your favorite streamer's point of view while still leaving ample screen space to keep up with match and player stats.

PLAYING WITH OTHERS

Get the immersive gaming experience without sacrificing your situational awareness. Game in 360°, or have a few friends over for a split-screen experience. Ascend's flexible interface lets you have complete control over how it's used.

kalibrera

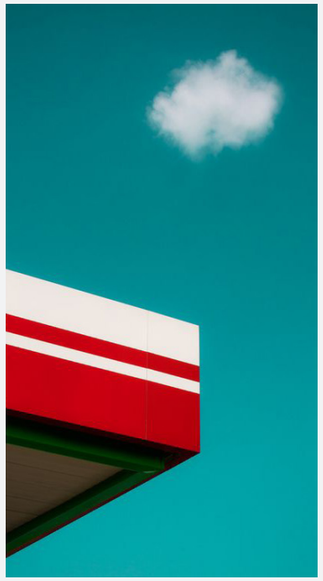
WIRE FRAME CHAIR

KALIBRERA

/kah-lee-breh-rah/

verb

Swedish word for “calibrate.” To divide or mark with gradations, graduations, or other indexes of degree, quantity, etc., as on a thermometer, measuring cup, or the like.

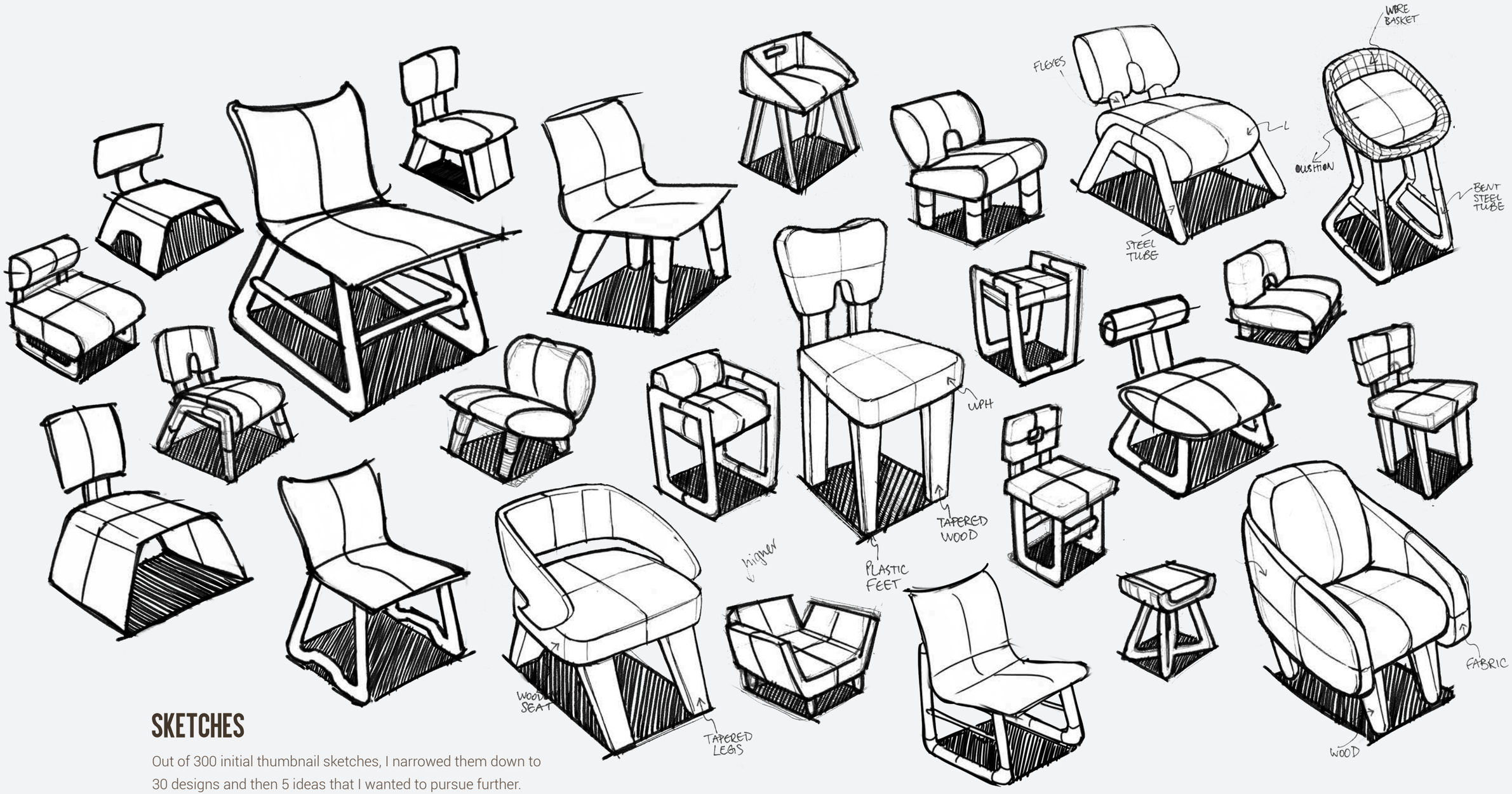






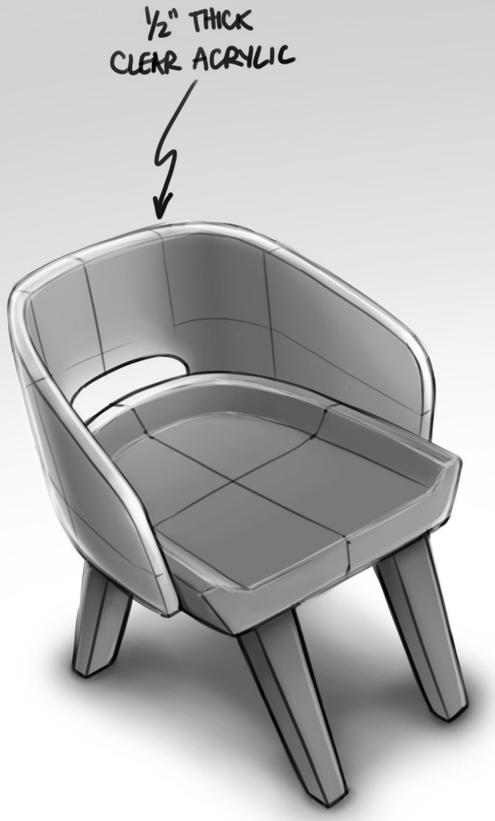

BRIGHT COLORS AND CONTRASTED FORMS

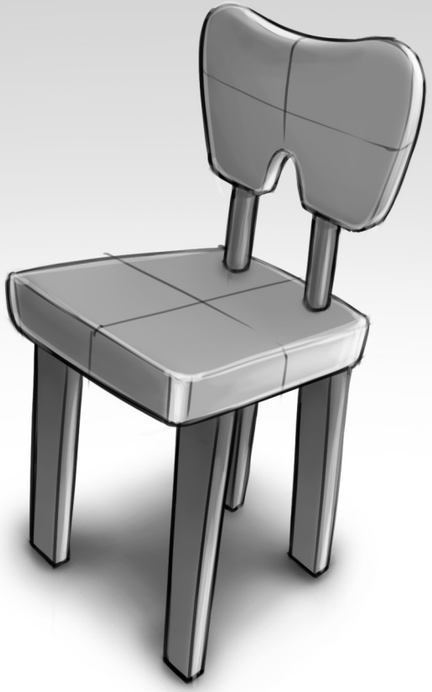
I was very drawn to the way that shadows can change the form of a product. Contrast, here, includes color and physical forms.



SKETCHES

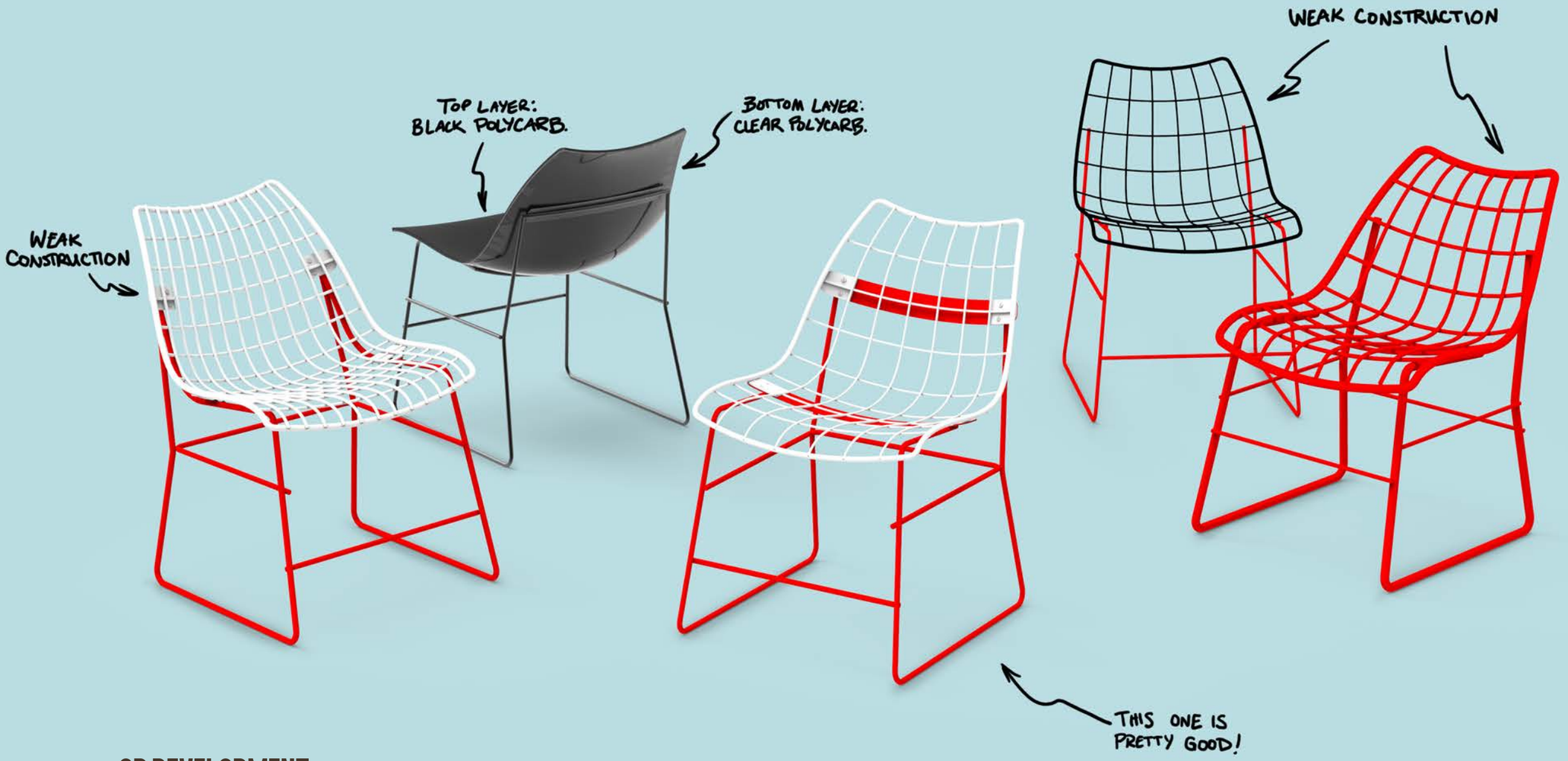
Out of 300 initial thumbnail sketches, I narrowed them down to 30 designs and then 5 ideas that I wanted to pursue further.





IDEA DEVELOPMENT

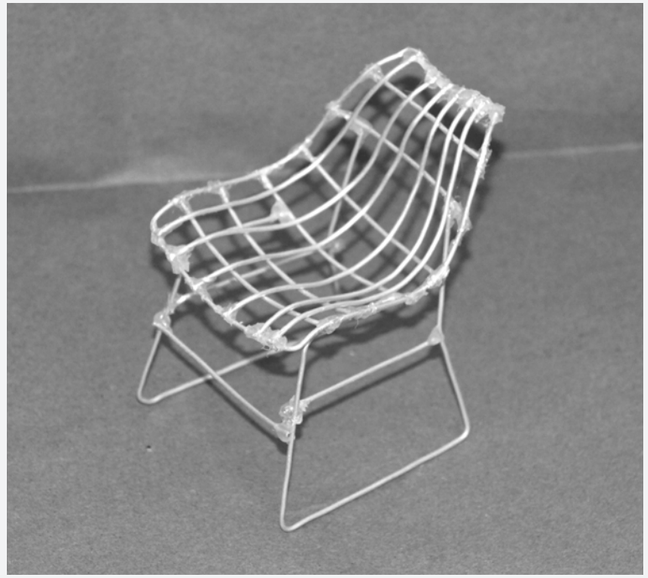
I chose 3 designs that seemed viable to pursue further as a physical prototype. Out of these 3, I chose one that felt the most interesting.



3D DEVELOPMENT

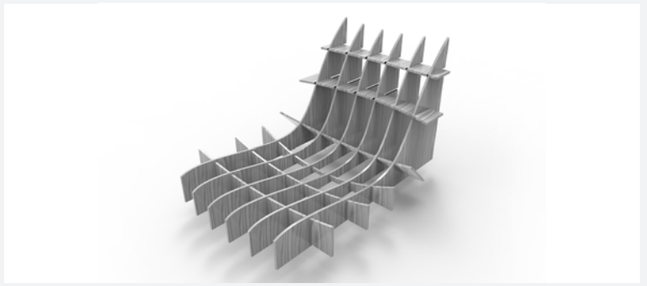
I created many models in Rhino to experiment with different methods of construction and materials.

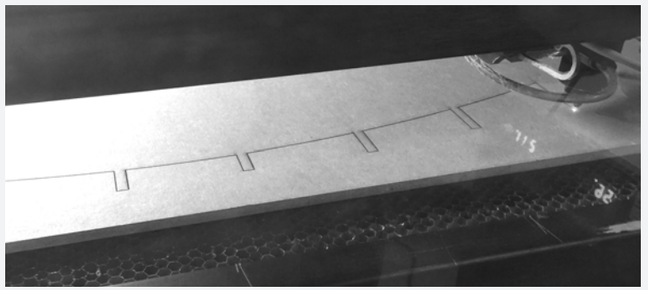
HOW TO MAKE A CHAIR



1. CREATE 1/8 SCALE MODEL

After sketching some ideas and before making a full-size model, I created a 1/8 scale model to explore a final direction.





2. LASERCUT MODEL

I quickly dived into 3D modeling in Rhino, where I created a surface that represented what I wanted the chair's seat to feel like. Lasercutting the pieces allowed me to quickly ideate different ergonomics.

3. FULL SIZE ERGONOMIC MODEL

After putting together the lasercut-cut pieces and a simple base that allowed me to quickly change seat heights, I found out that my initial chair had too reclined of an angle.

HOW TO MAKE A CHAIR

4. BEND IT

I created engineering specs and full-size orthographics so that I could submit them to a local welder for the final full-sized prototype of the chair.

5. WELD IT

After bending the steel tubing, it was welded together. The chair was welded into two separate parts to allow it to be powdercoated in two colors.

6. POWDERCOAT IT

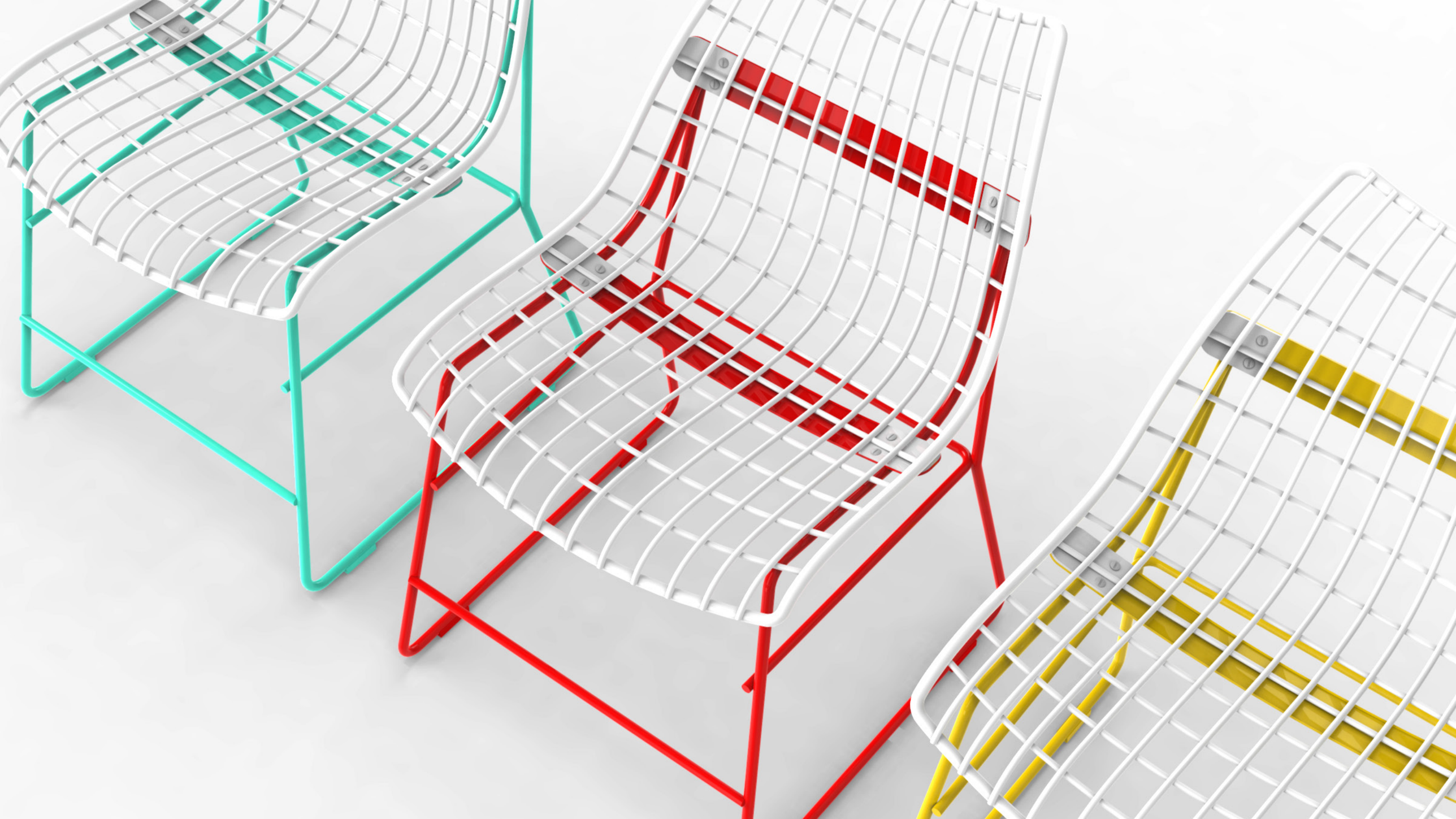
The chair was sent to a local powdercoating company to be colored. After that, it was bolted together through the tabs on both parts of the chair.

Adding welding tabs added structural strength to the chair and also a place to put binding posts.

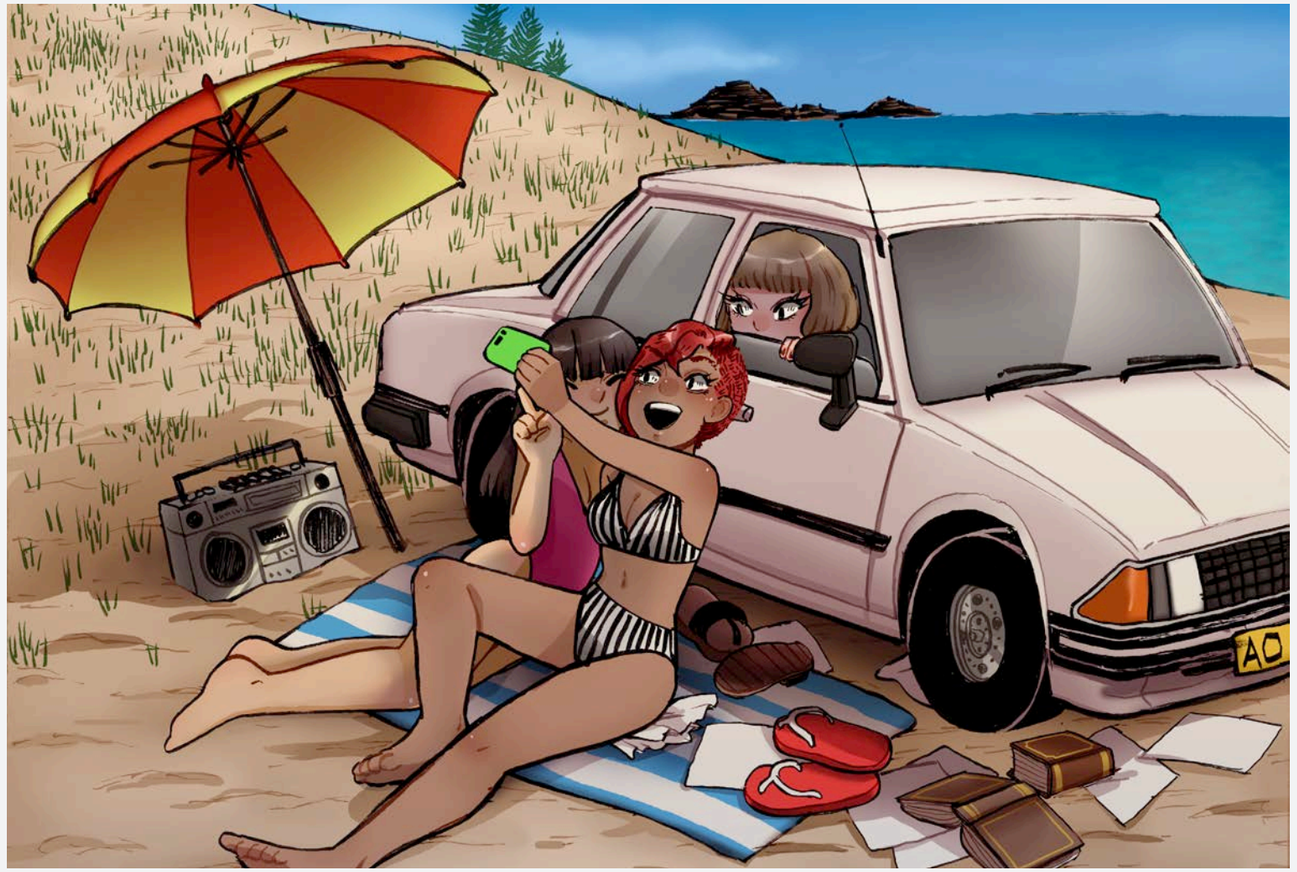
Welding the chair in two parts allowed me to powdercoat the top and bottom halves in different colors.

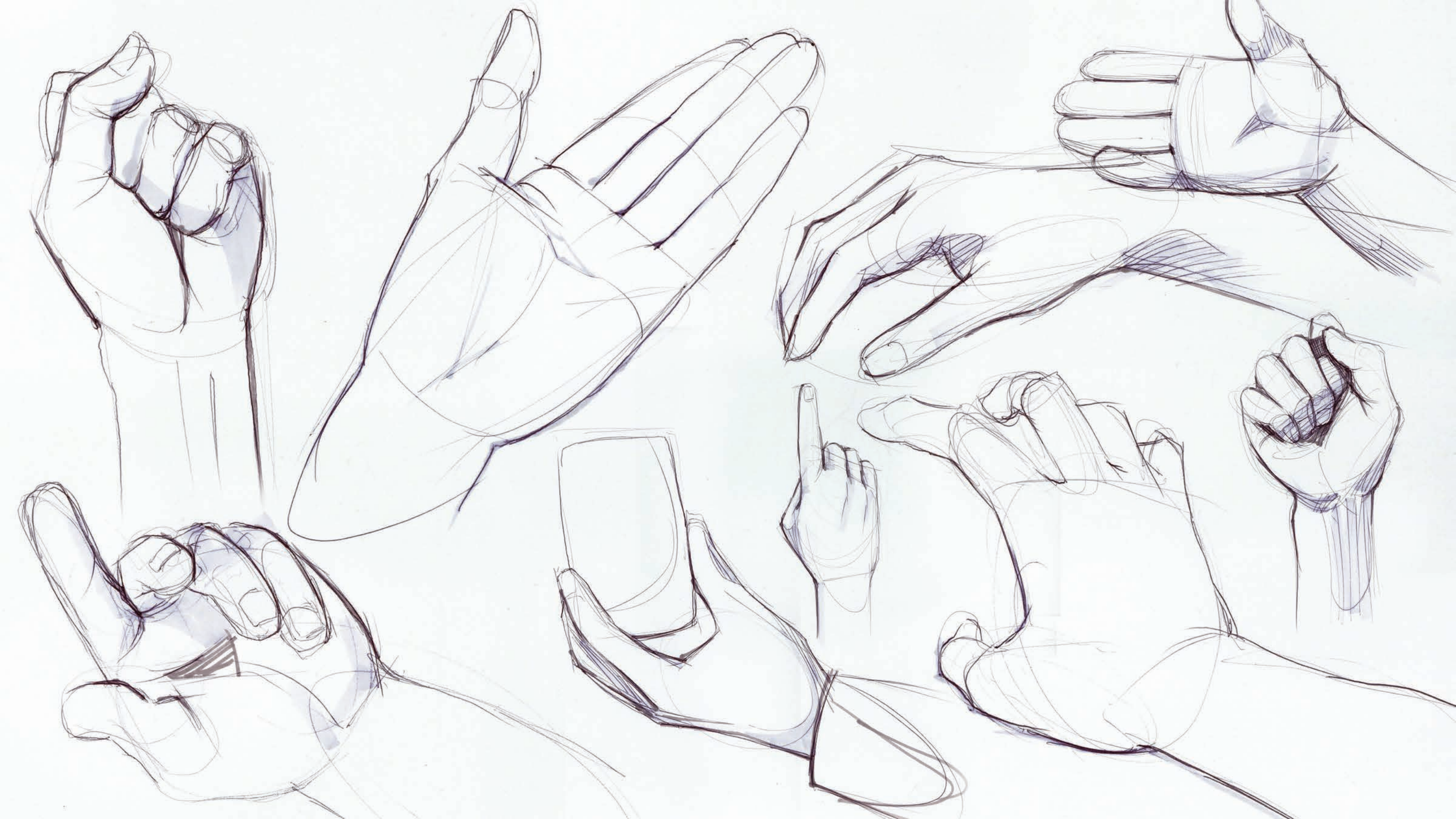
EXPLODED VIEW

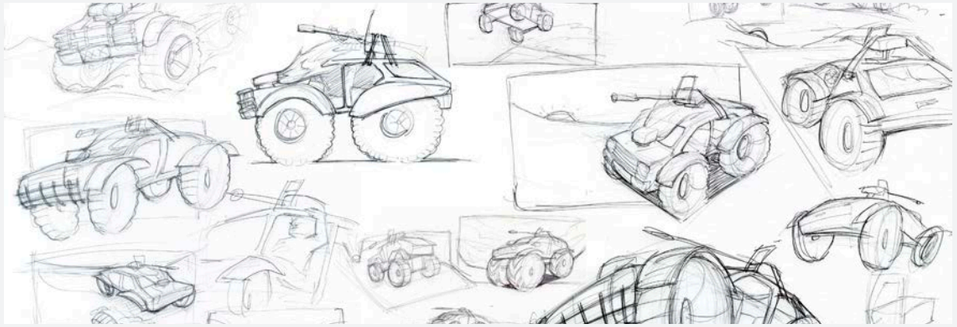
The chair was made of 1/2" steel tubing. The "wires" on the top half of the chair were 3/16" steel rods.



SKETCHBOOK







THANK YOU

FOR YOUR TIME!

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