

2023

PORT FOLIO



Ovadia Cohen

**Industrial
Design**



OVADIA COHEN

Industrial Designer

About Me:

My interest in the field of industrial design began when I was four years old. I had just gotten my first ever action figure in a bag of hand me down toys, and became enraptured by a little lever on the character's back that made his arm move up and down. Mimicking something I'd seen my dad do to a broken radio, I took a screwdriver from a drawer in the kitchen and attempted to disassemble the toy.

Once I was able to get the back off and discovered the little plastic gears inside, my mind was blown. Every toy, machine, and moving part I'd ever seen was made possible by the relationship between little internal pieces like the ones I was looking at in this toy, and there was rarely more than a plastic panel between me and them. Though I didn't know it yet, this was the first time I'd ever appreciated design, and that moment would guide the rest of my life.

When I was old enough to start considering a future career, design was a no-brainer. It was everything I loved about art coupled with all the excitement of problem solving. Since then, my relationship with design has grown and changed, and I've had chances to consider much more complicated problems. These projects have included looking at the future of automated transportation, considering human factors in a world with rising sea levels, exploring tools to help small retailers survive the age of online shopping, and rebuilding our recycling system with the aid of modern technology. Through these challenges, I've come to see accessible and intuitive design as one of the most important factors in human progress, as well as our never ending pursuit of a better future.

EXPERIENCE

CATALYD, San Rafael, CA

Nov. 2018 - Present

Digital Communications Manager

Catalyd is a recruiting and executive coaching consultancy serving the advertising, marketing and technology industries. I manage all digital communication needs: website updates, social media posting, slide presentation creation, graphic design, collateral creation, and tutoring computer software programs. I work remotely during the school year from Savannah.

OVADIA Creative

2013 - 2018

Graphic Designer

My freelance business, in which I produced all forms of art for various paying clients: logo and brochure design, posters, animation, paintings, and even tattoos.

Il Davide Restaurant, San Rafael, CA

2017- 2022

Catering, Bussing, Serving, and Food Delivery

- Part time Server at catered events up to 300 people
- During Covid, served as delivery driver for take-out orders
- Moved up to bussing, waiting, operating phones, and handling work behind the scenes

Andy's Local Market, San Rafael, CA

2017

Customer Service

Food service for all orders in delicatessen

Built new display for ordering

Occasional repairs

Education:

Savannah College of Art and Design
Savannah, GA

Expected Graduation: Fall 2022
B.F.A. Industrial Design, UX Minor

Reach Out:

+1 (415) 686-6707

ovadiarcohen@gmail.com

ovadiacohen.com

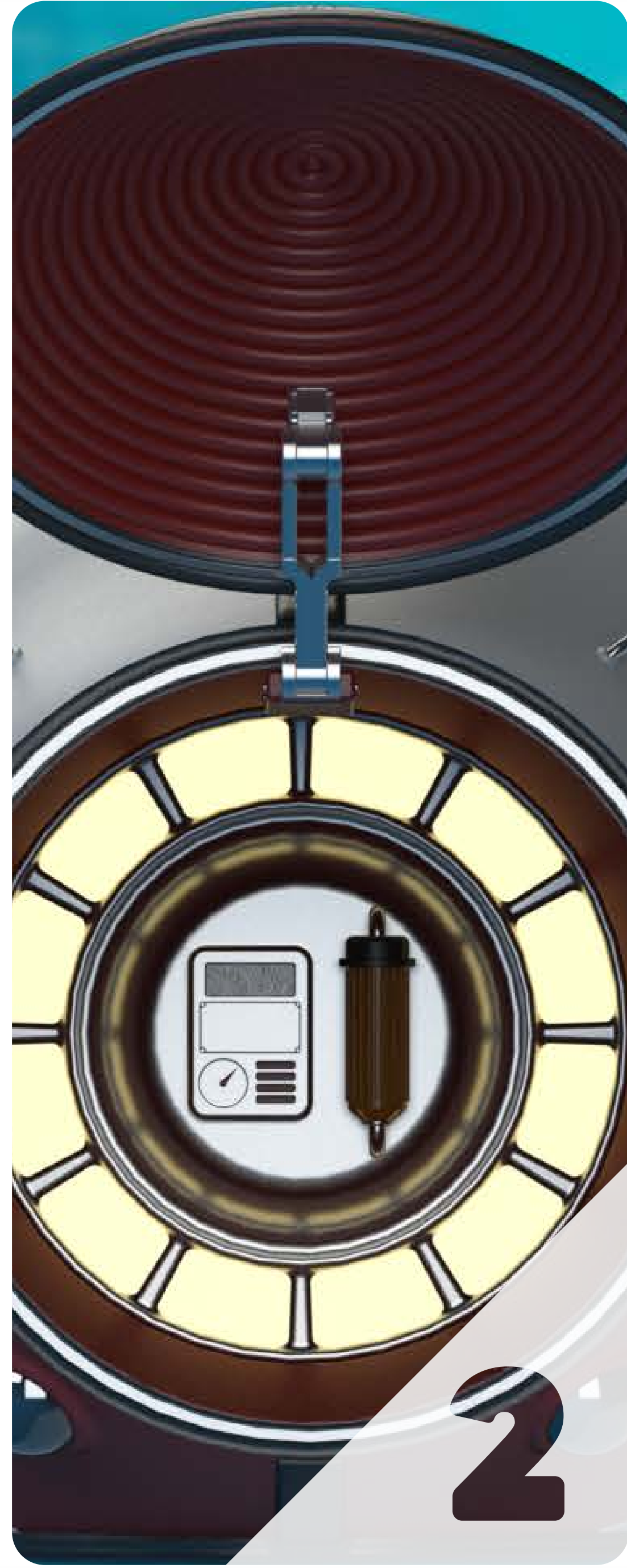
Skills:

- Graphic Design
- Illustration
- Video Editing
- 3D Modeling
- Laser Cutting
- Fabrication
- Team Leadership
- Collaborative Design
- Product Sketching
- Prototyping

Software:

- Illustrator
- Photoshop
- After Effects
- Premier Pro
- Solidworks
- Rhino 3D
- Indesign
- Figma
- Keyshot
- Blender

INDEX



01 Makit

A fully articulated, highly complex, and plastic free action figure

Prompt:

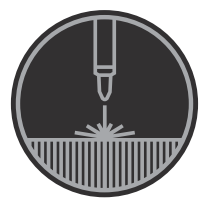
This was spawned from a challenge to create a scale, articulated version of a human form in any way. It quickly evolved into my senior thesis, rebranded as a means of offering a complex toy to the plastic averse.

Concept:

A line of articulated toys that would take advantage of laser precision to let natural materials like wood offer the versatility and complexity as plastic. Users would then customize, order, and build their own toy to maximize educational and creative opportunities.



Illustrator



Laser Cutting



Solidworks



Research

Parent SURVEY

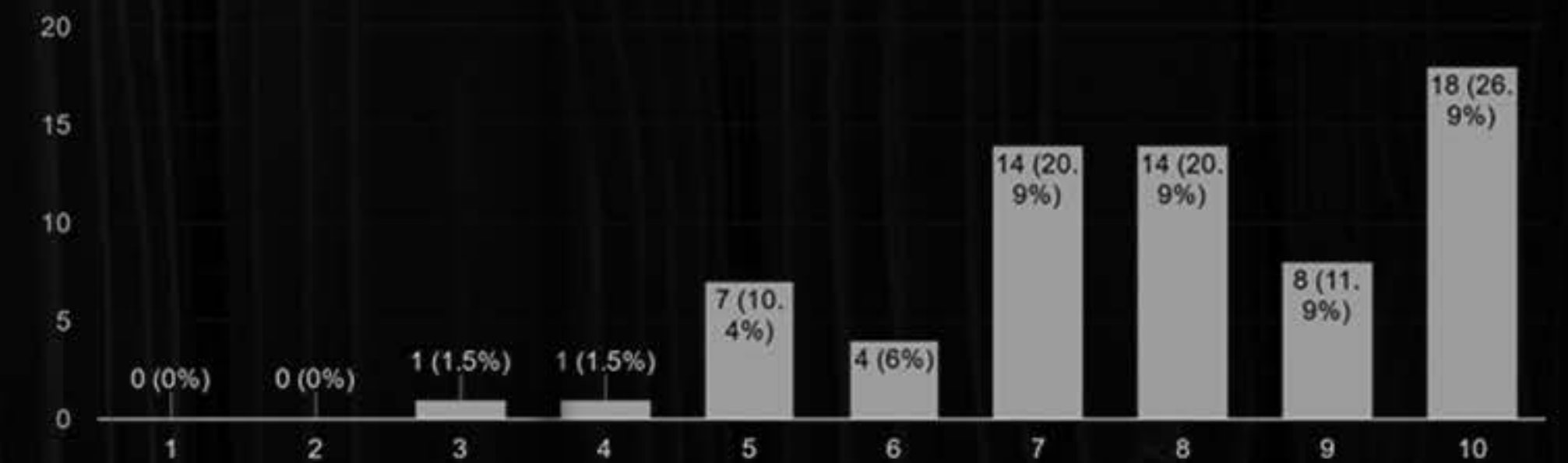
Taking advantage of the “Ask Parents” subreddit, I put together survey that covered pain points and preferences to submit to the community.

Their answers went a long way in shaping the final form and function of this project. My initial plan to ship this as a finished action figure was thrown out in favor of a model where families put the toy together themselves

In addition to eco-friendliness and buildability, customizability quickly shot up the list of sought-after traits. With this in mind, I restructured the business model to allow prospective customers to chose the parts that make their model before ordering.

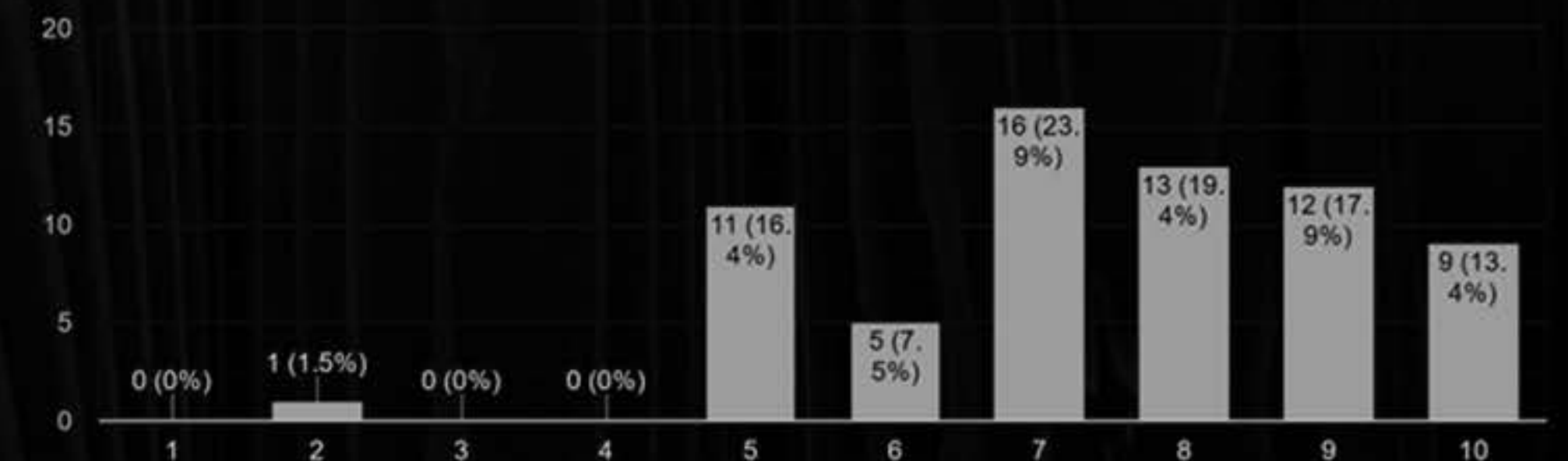
The toy is customizable (can be dressed up, painted, or have parts swapped out)

67 responses



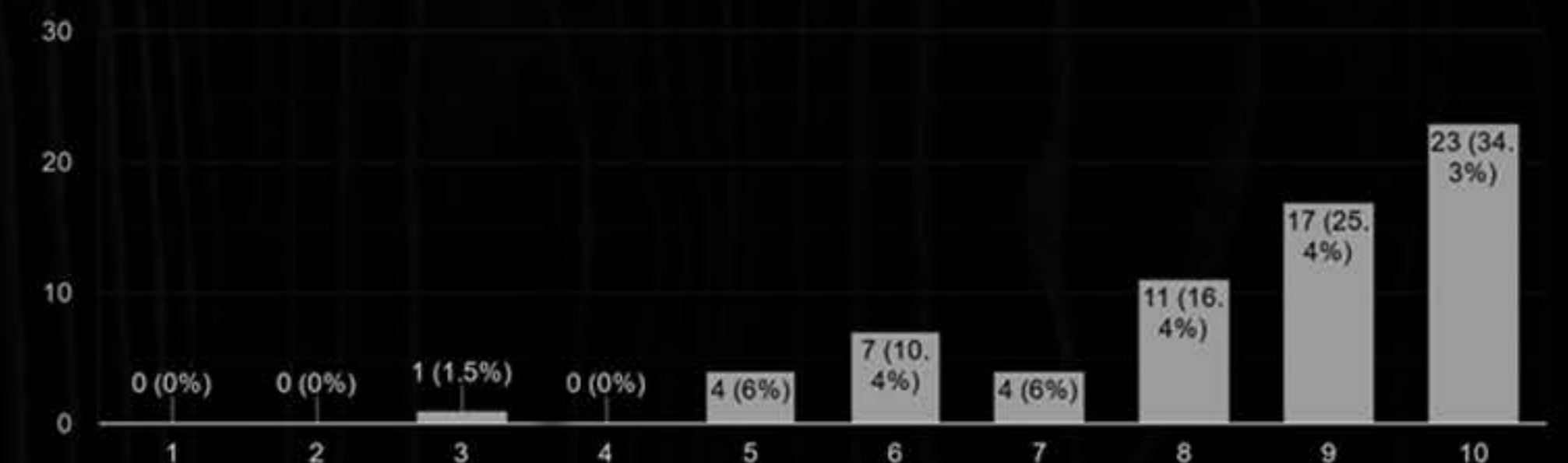
The toy is made from natural materials, such as wood

67 responses



The toy is buildable, like a Lego set or model kit

67 responses

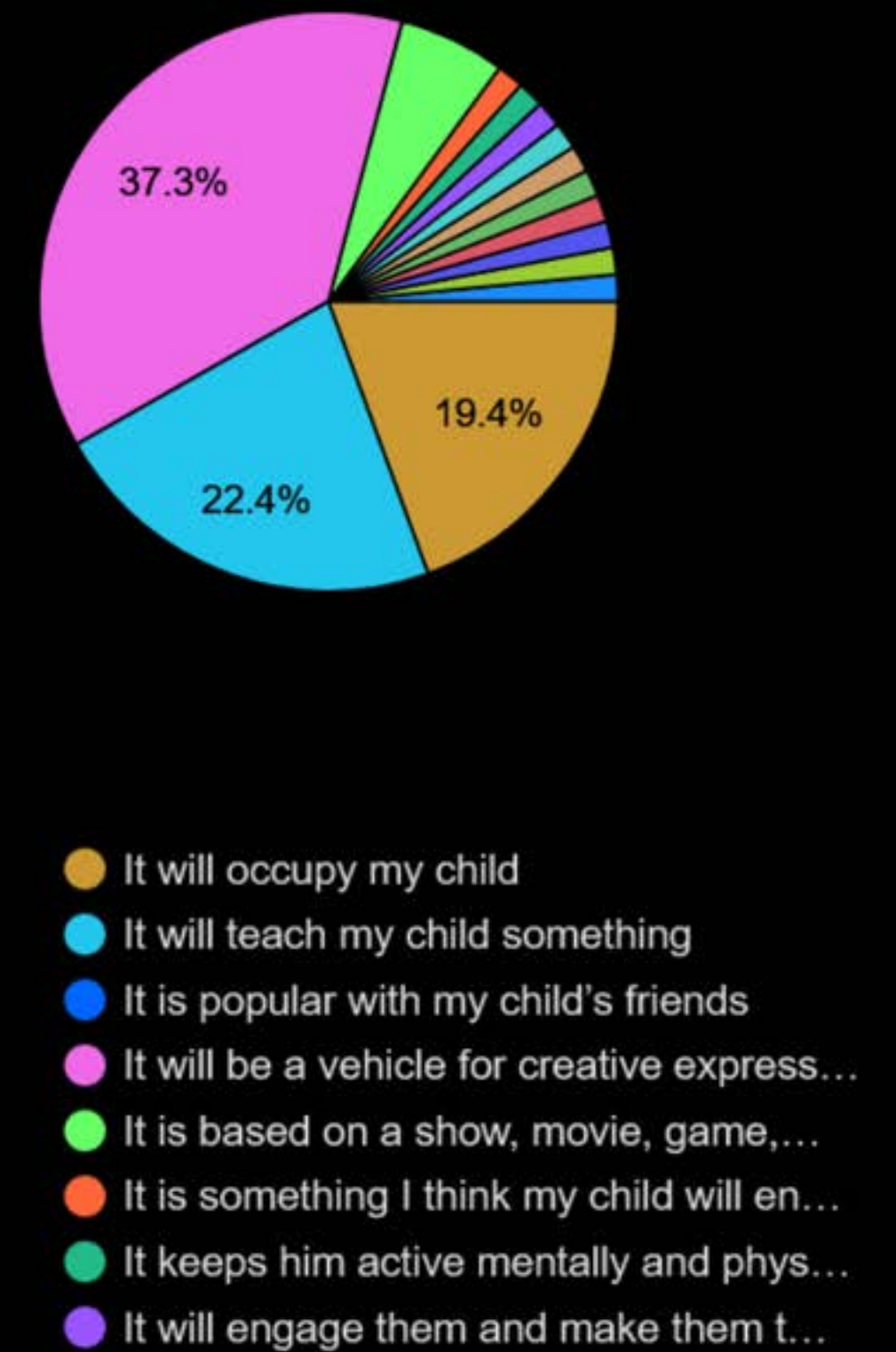


Parent SURVEY

To get a read on what parents look for in a toy, a number of questions asked about attractive qualities and qualities they would like to see more of. Notably, the toy providing educational or creative value consistently ranked higher in importance than the toy occupying the child's attention.

What are your primary interests when choosing a toy?

67 responses

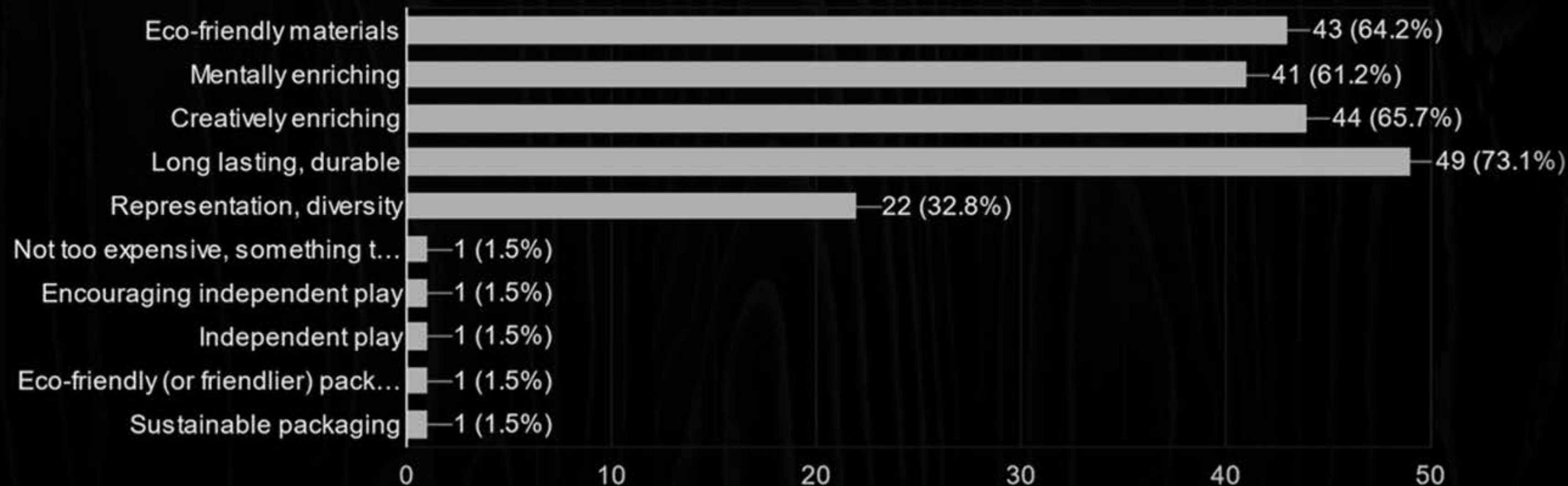


- It will occupy my child
- It will teach my child something
- It is popular with my child's friends
- It will be a vehicle for creative express...
- It is based on a show, movie, game,...
- It is something I think my child will en...
- It keeps him active mentally and phys...
- It will engage them and make them t...

▲ 1/2 ▼

What are factors you personally would like to see more of in the toy industry?

67 responses



Background

Finding A MISSING LINK

For plastic averse parents, such as those with children in Montessori or Waldorf schools, there are limited options for play products. After children outgrow simple wooden blocks and require more complexity in their toys, they are left with two options: Either cave, and move on to action figures and Legos, or quit, and advance to a stage beyond play.

Having extensive experience on a laser cutter, I didn't feel that this needed to be the case. I set out to build a set of schematics that would pull complex and intricate forms from simple sheets of wood. All the benefits of a plastic toy, with none of the guilt.

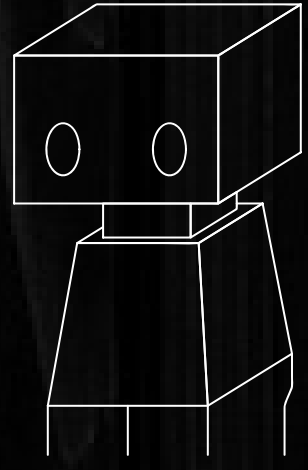
Forming A NEW STYLE

To establish a visual style that was achievable with the material I wanted to use, I took a look at what was out there. From existing toys in the same vein as mine, I was able to derive three distinct visual styles. BLOCKY, SPARSE, and REALISTIC.



???



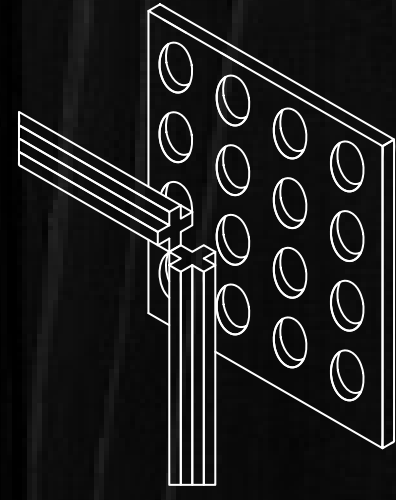


BLOCKY

These products revel in the constraints of their material.

Cartoonish in both proportion and

presentation, they incorporate a forced lack of detail into deliberate stylization. A user doesn't notice that the figure's head is boxy as a result of simplifying construction, they read it as part of the style. Joints can be on display, detail is overlooked in areas where it isn't required, but a well defined form still emerges from a clever maneuvering of basic constraints.



SPARSE

These products lean heavily into showcasing the factors of their construction. The holes into which

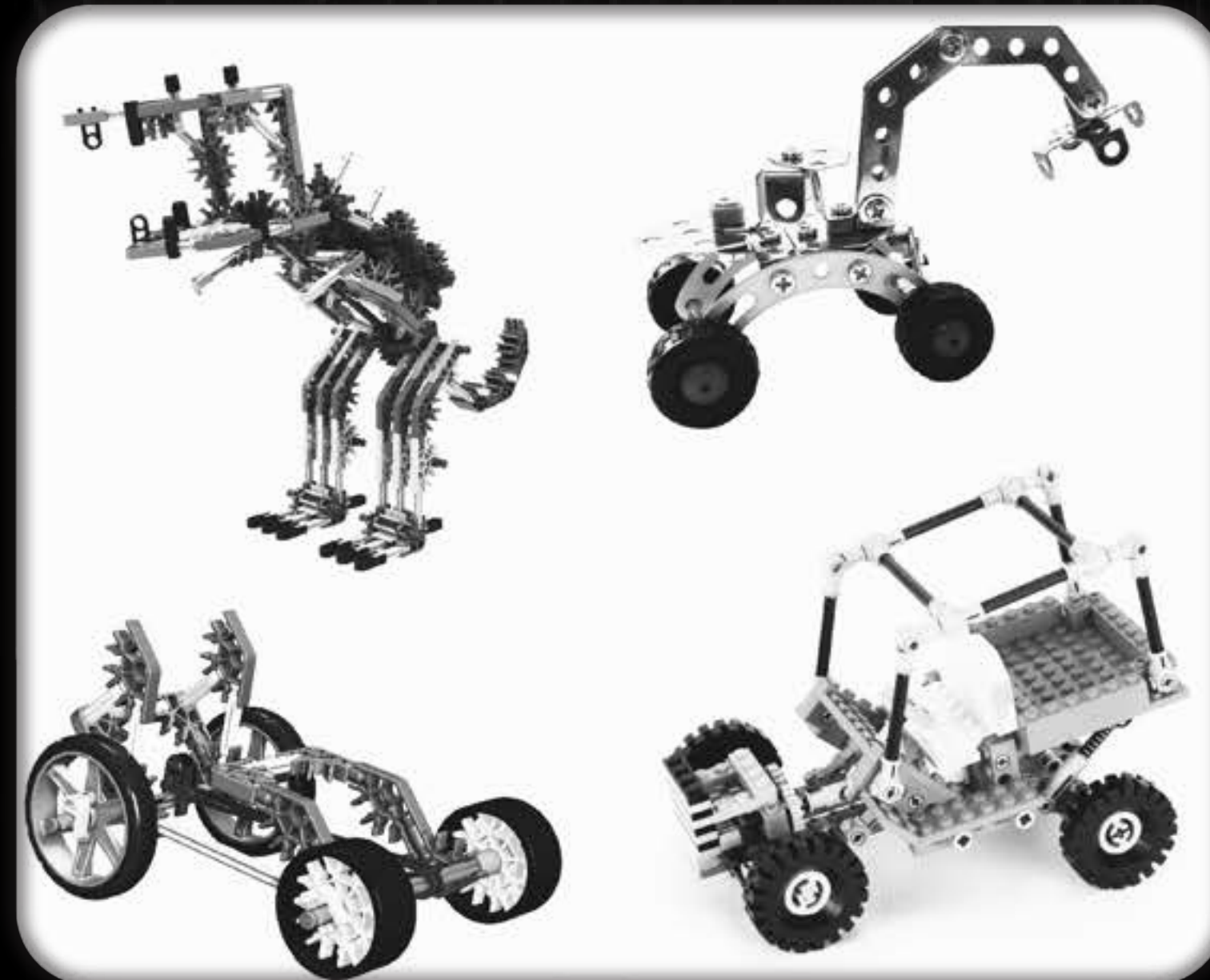
pegs will fit are proudly on display, forcing a user to consider the many ways in which it might be reassembled. No build looks complete, and that's by design. Completed builds are abstracted from the forms they are meant to represent, and part of the magic lies in the fact that a final product doesn't say "I made a car," but rather "I made a car from Kinects."



REALISTIC

These products push hard against the constraints of their size and materials in the pursuit of perfect

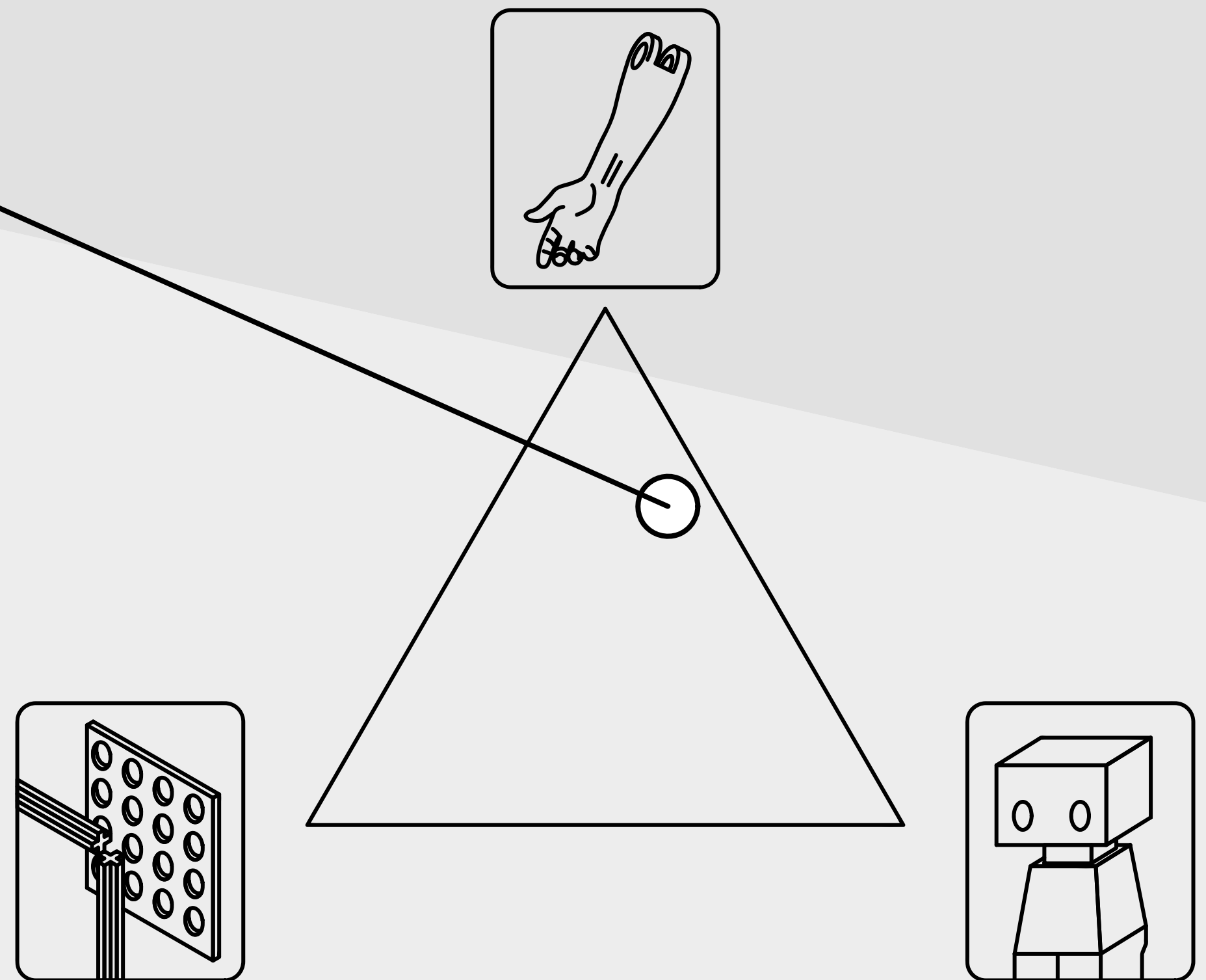
realism. Joints are hidden, proportions are accurate, and visual details are explored to their microscopic elements. Toys made in this style are only as visually compelling as the form they are built to represent, but the magic comes from the illusion of holding a real, shrink-rayed version of an object the user finds intriguing.



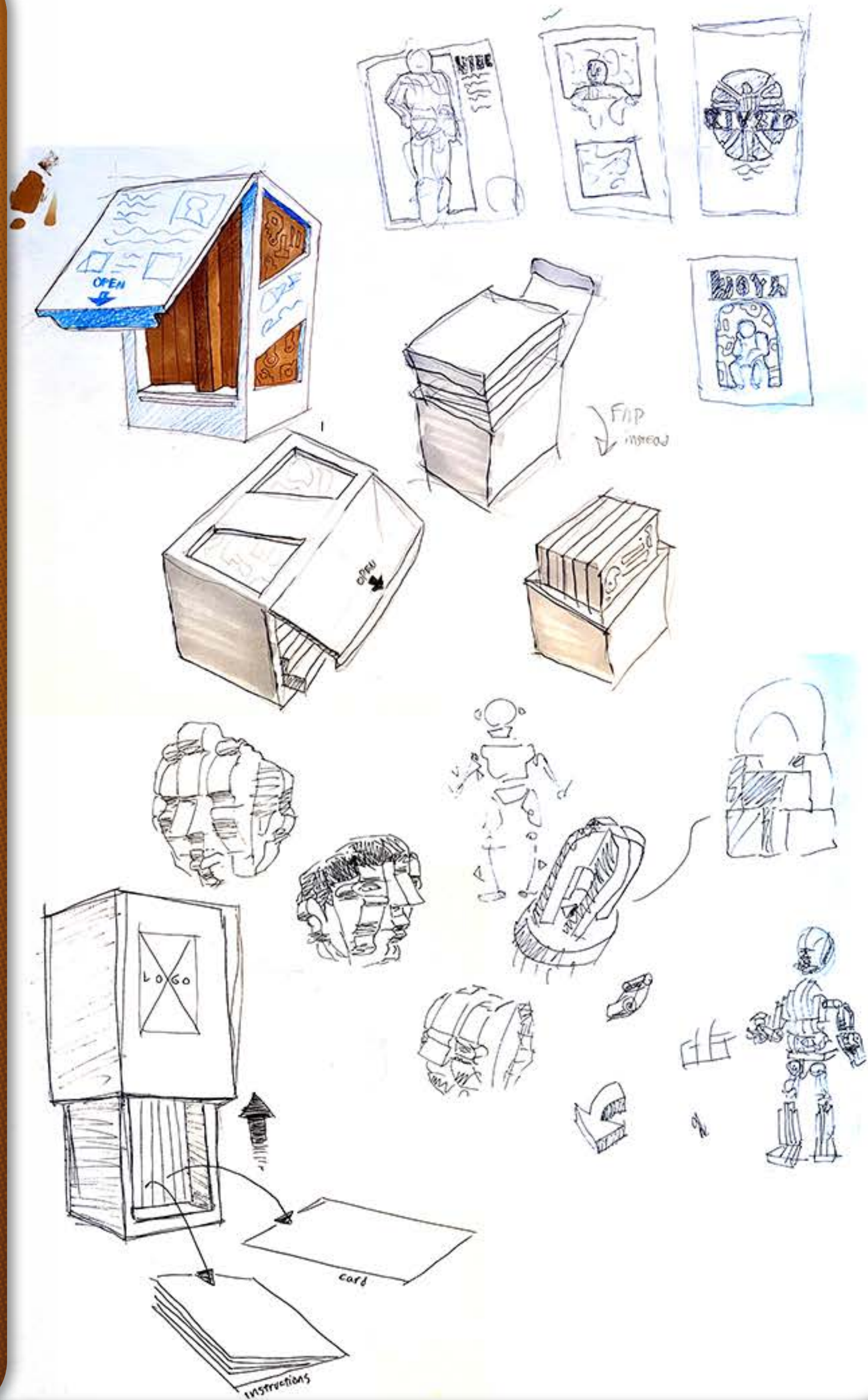


INTENT:

The intent is to shoot for realism as well as the material will allow. While the joints may not be hidden, the constructed nature of the product should be showcased as little as possible. In areas where realism can't be achieved, material constraints should be incorporated into stylization.

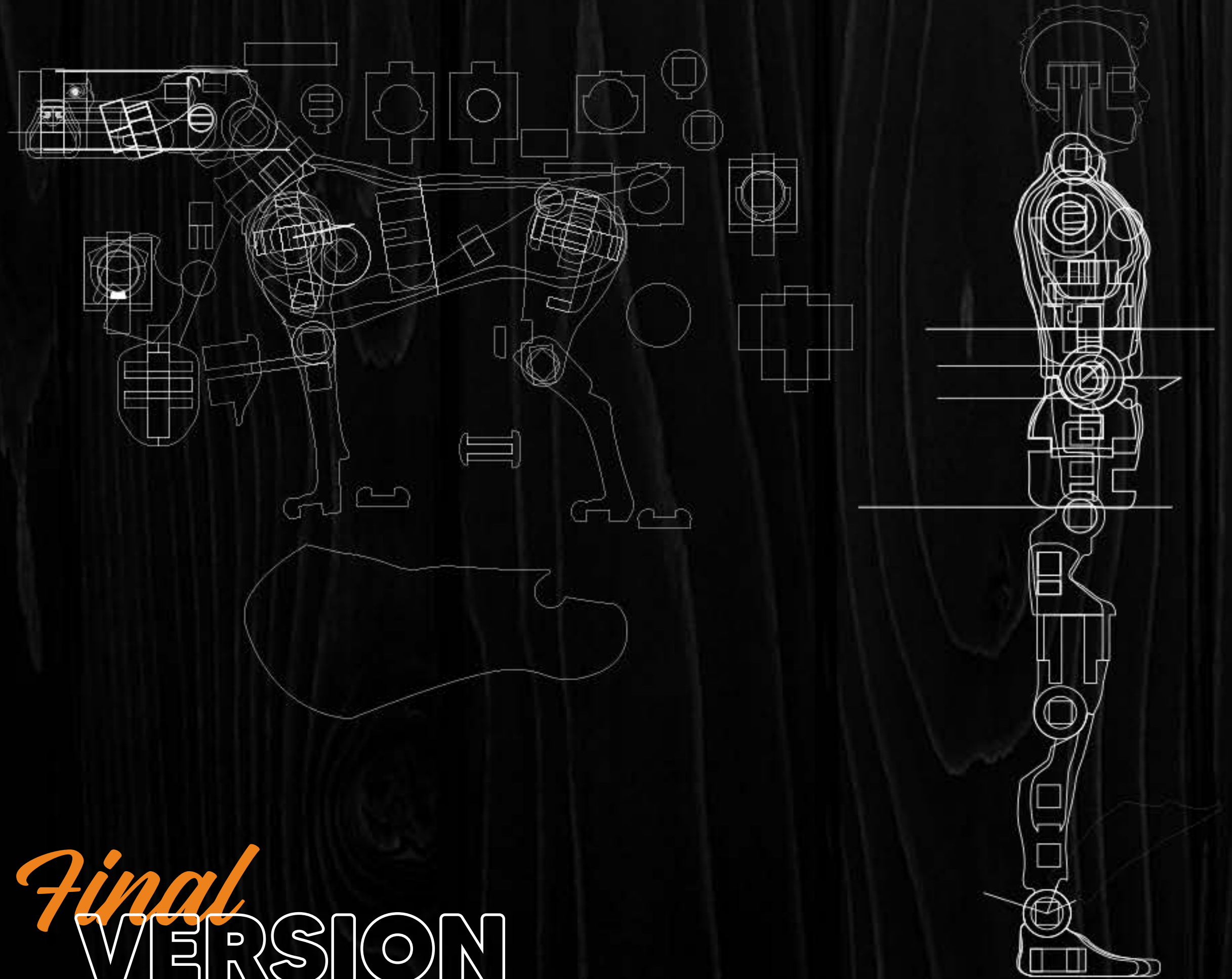


Design



Final VERSION

The final version was sketched in illustrator to achieve precise and easy to customize measurements. Keeping the material thickness in mind, I was able to build a complex model that could go straight to the laser cutter.





You MAKE IT

The more than 100 carefully designed parts, each aiding both the visual form and realistic articulation of the figurine, require less than a square foot of quarter-inch material to create in total.

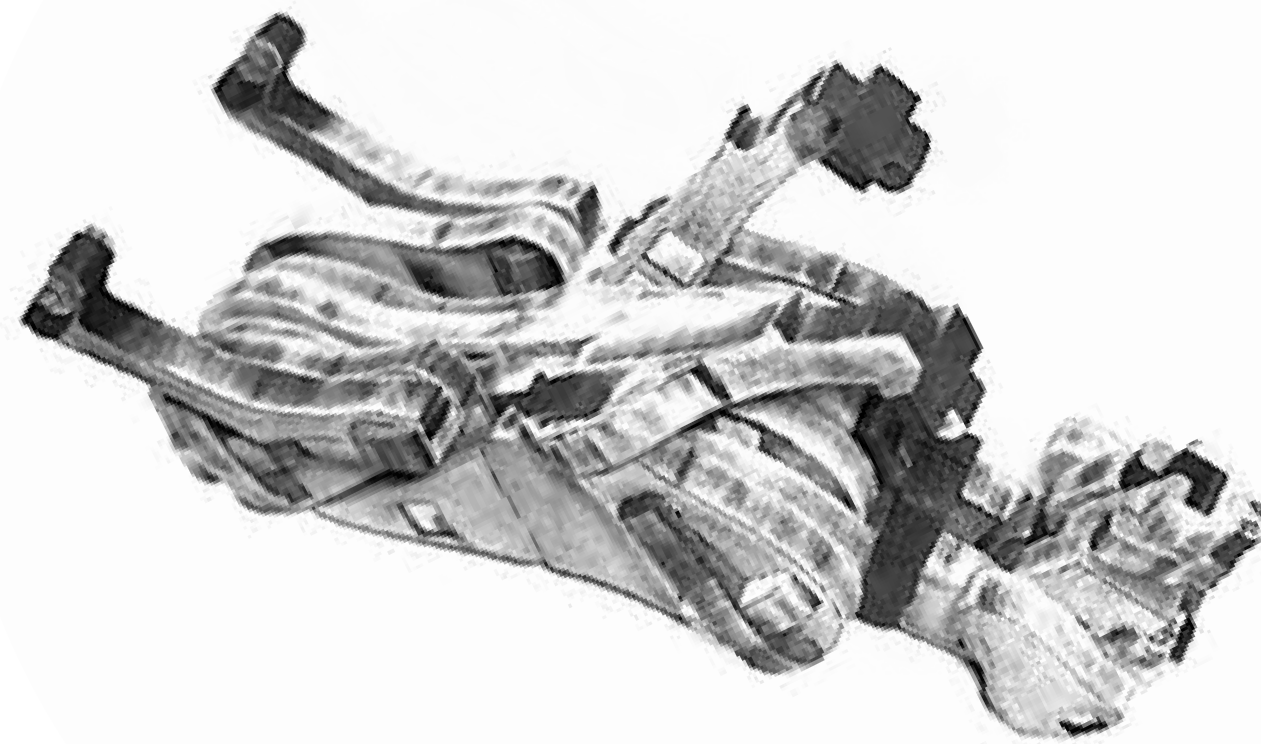
Sanding and staining gives each part consistency with the whole at the discretion of the user.

Whether it should be painted, stained, colored or left as-is is the decision of the user.



Putting it TOGETHER

Sheets of parts slide out of a box of the same material. Each one is labeled with the body part it creates, and the pieces pop right out. Once assembled, the user has a fully poseable, complex, articulated figure with the feeling of a wood toy and the smell of a camp fire.



Range of PRODUCTS

This range of products extends far beyond the human form. Pets like dogs and cats, rides like bikes and horses, and a whole range of props accompany your new toy to expand and encourage new styles of play.



Small cuts on the edge of the wood allow seams to disappear into a stylized border.

The packaging, also laser cut, is sanded and notched to hide manufacturing marks like burned edges.





02 Lumpsucker

An autonomous utility robot
for a world under water

Prompt:

The prompt for this project was to design a product for a future where melting ice caps had led to world-wide flooding. Designs had to incorporate bio-mimicry and the visual styles of designer Luigi Colani

Concept:

Since many students proposed floating cities, I wondered what the municipal functions of these cities might look like. It wouldn't make sense to waste surface area on garbage trucks or repair vehicles, but a robot that could patrol from below might be the perfect fit.



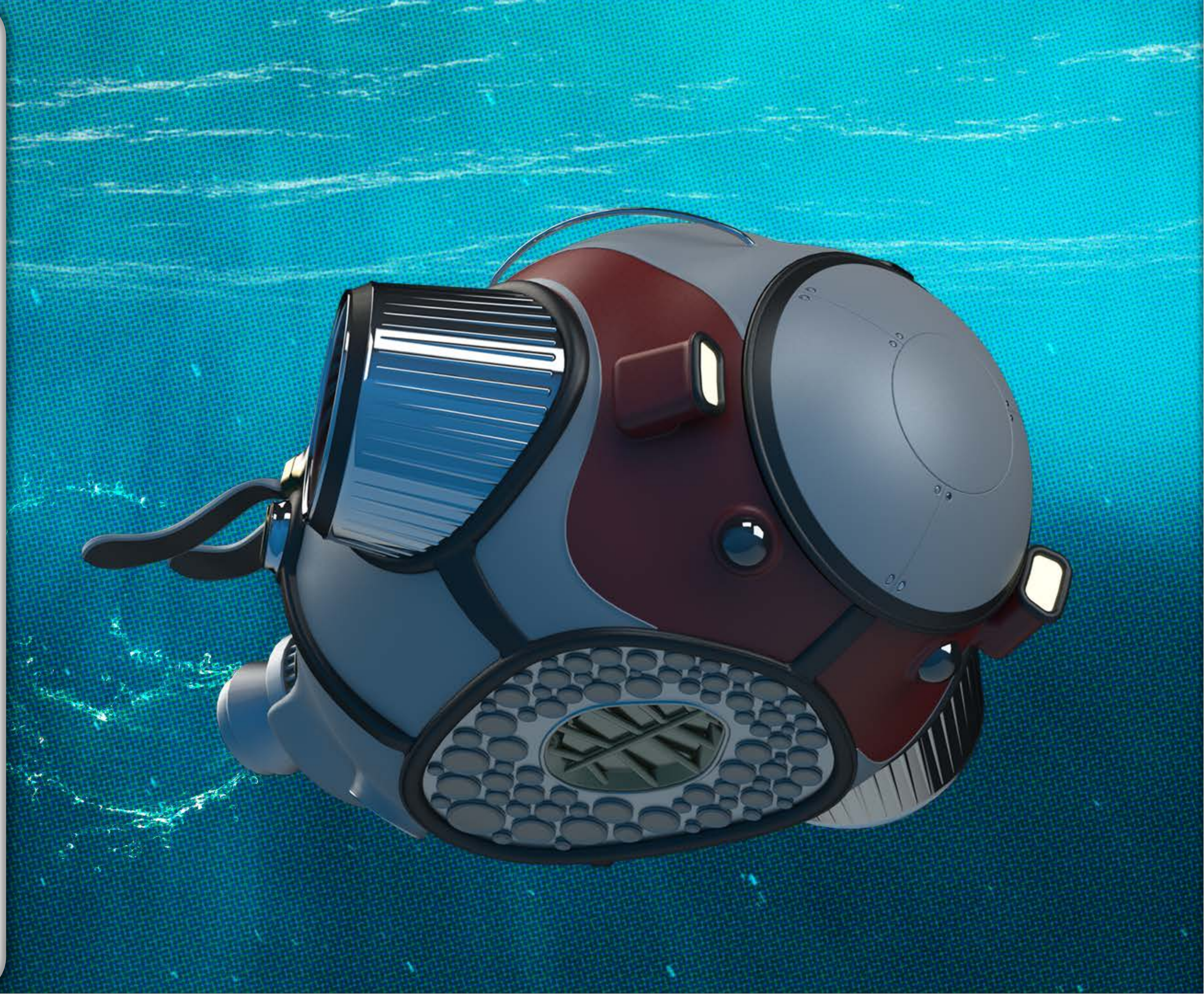
Solidworks



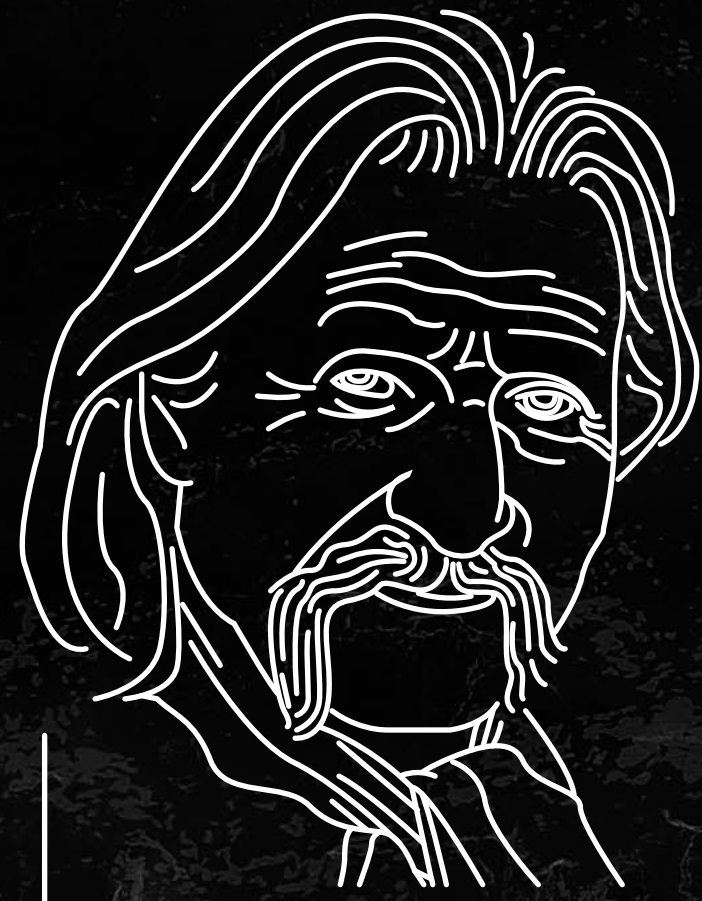
Keyshot



Photoshop



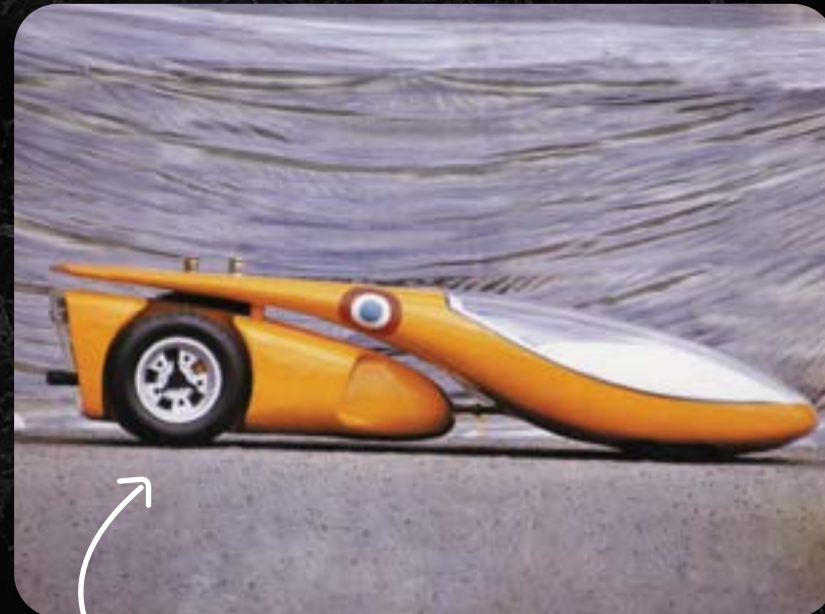
Research



Designer

Luigi Colani

Luigi Colani was a German designer who was fascinated with Italian style. His designs were often curvaceous and sleek, prioritizing form over function. Biomimicry was a common theme in his work.



Highly dynamic



Round, curvaceous



Bold, primary colors



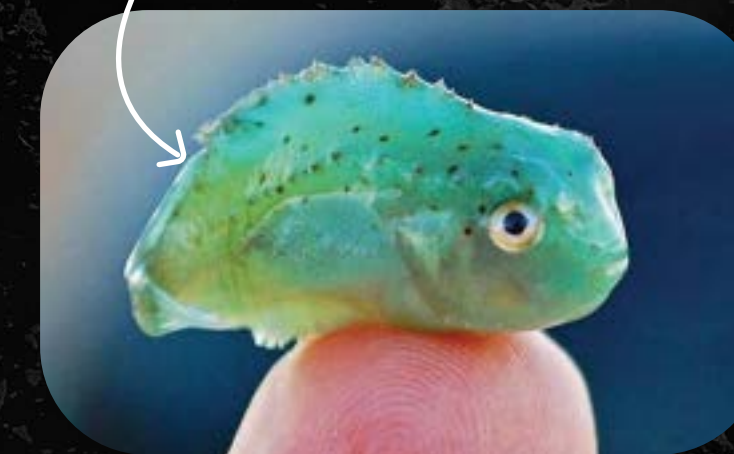
Biomimicry



Biomimicry

Lumpsucker

The Lump sucker is a strange fish with a sucker cup on the bottom of its body. Its fins can't take it very far, so it conserves energy by latching onto other objects. It attaches nondestructively.



Soft curvature

Round, dynamic shape



Non-destructive stick



Small fins for short bursts of movement

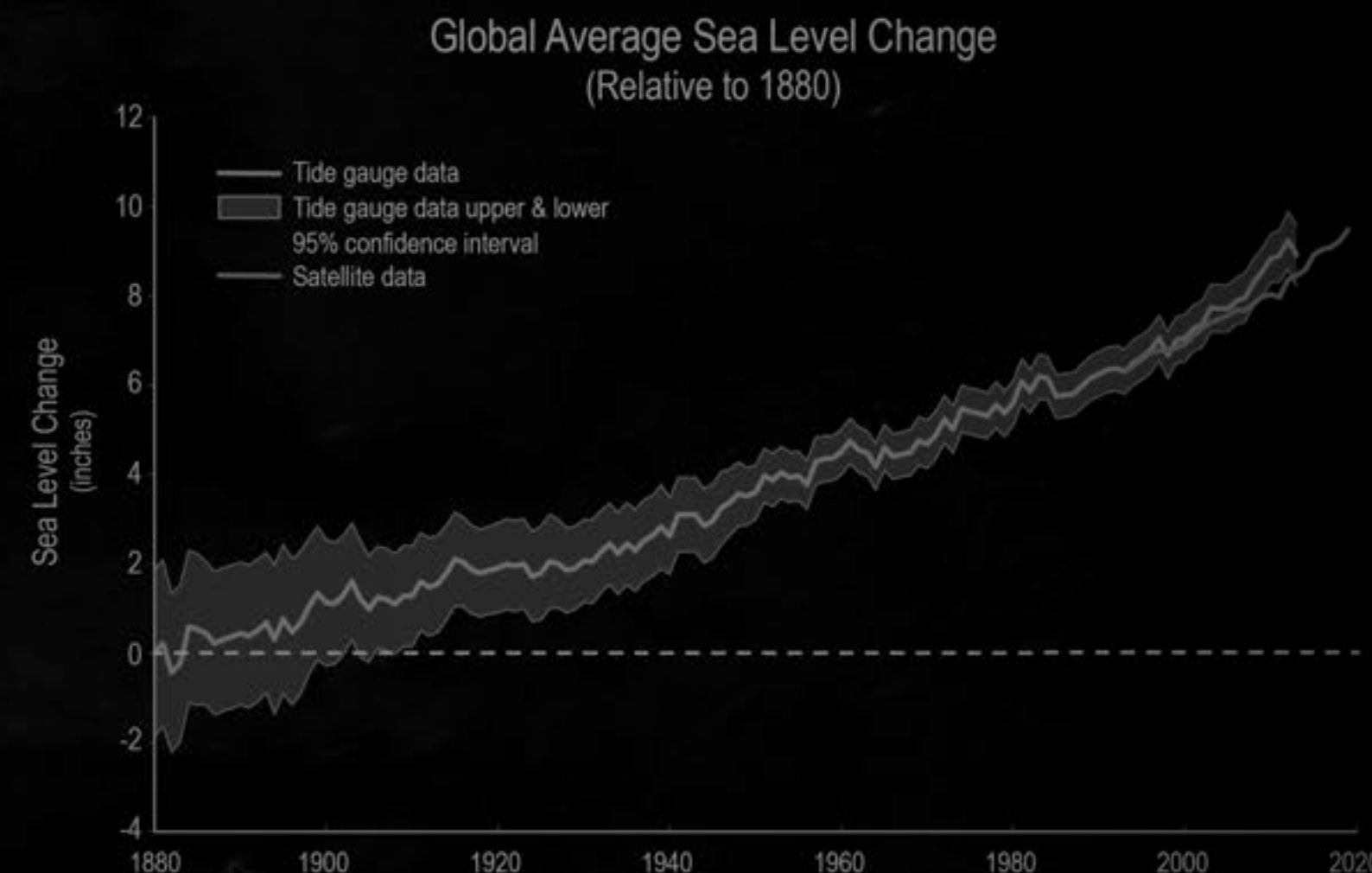
Background

A World UNDERWATER

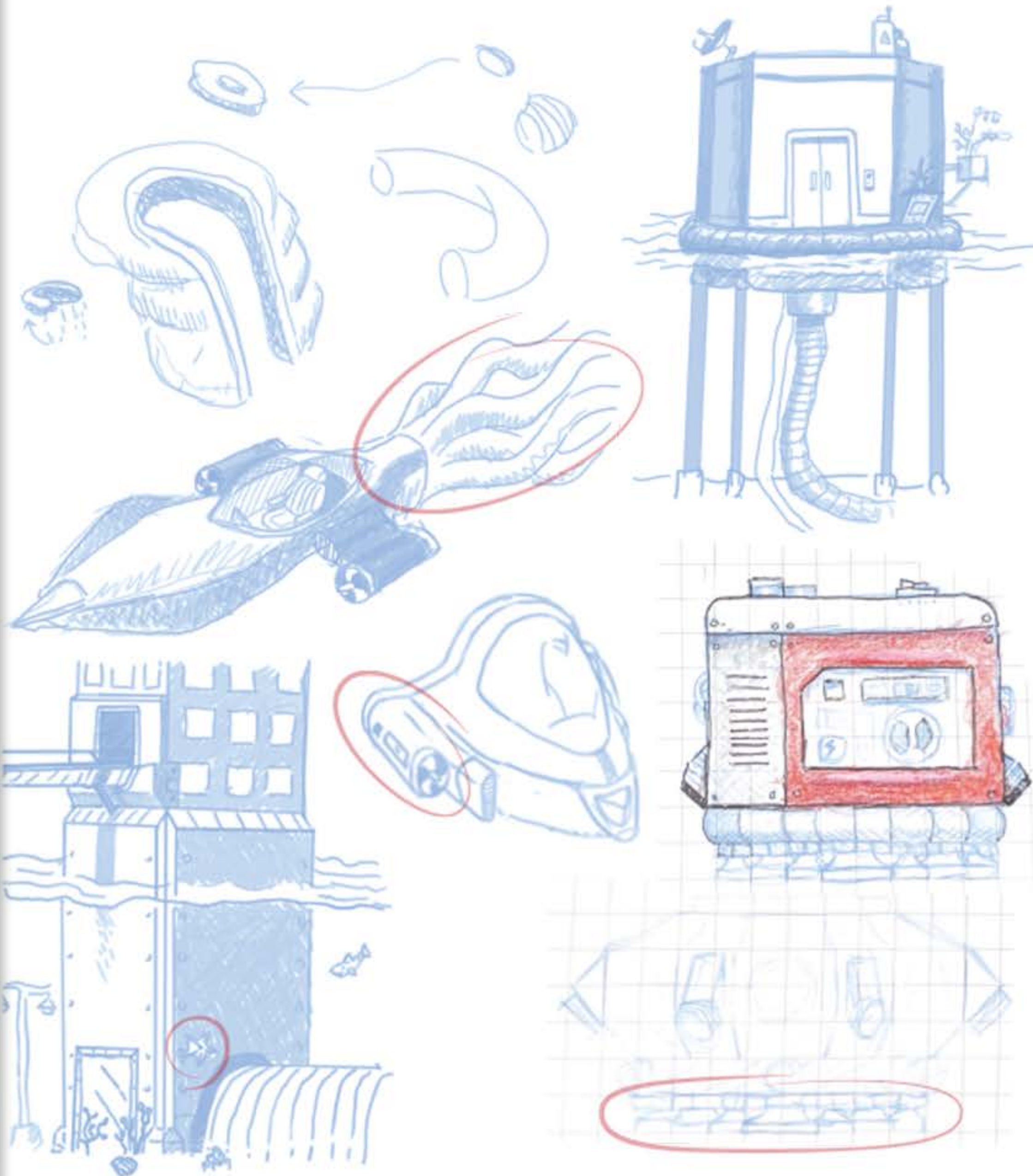
For this project, we were asked to look forward to a world losing ground. Climate change projections and flood maps showed us a coastline moving inland and a crisis on the horizon. The challenges this would present were innumerable, and the angle from which we approached them was up to us.

Some students considered new forms of transport. Some envisioned adaptive styles of architecture. Many saw an opportunity to reinvent our modern city as a seafaring vessel or a set of floating structures.

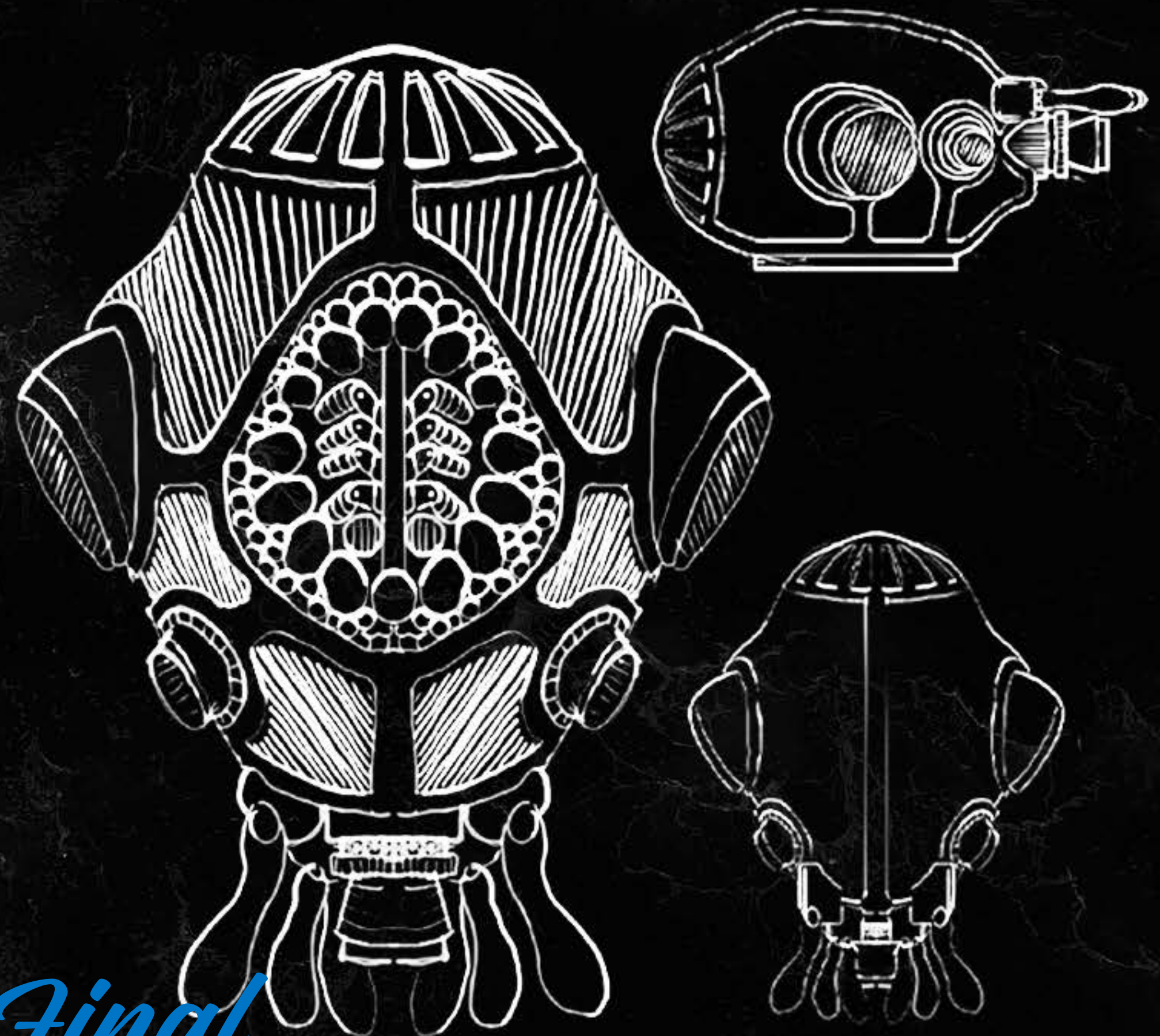
Inspired by that concept, I took to wondering what municipal functions might look like in such a place. What systems might they have to save a pedestrian overboard? How are repairs carried out? And how could I answer those questions in the design language of a German-born Italophile with an affinity for biomimicry?



Design

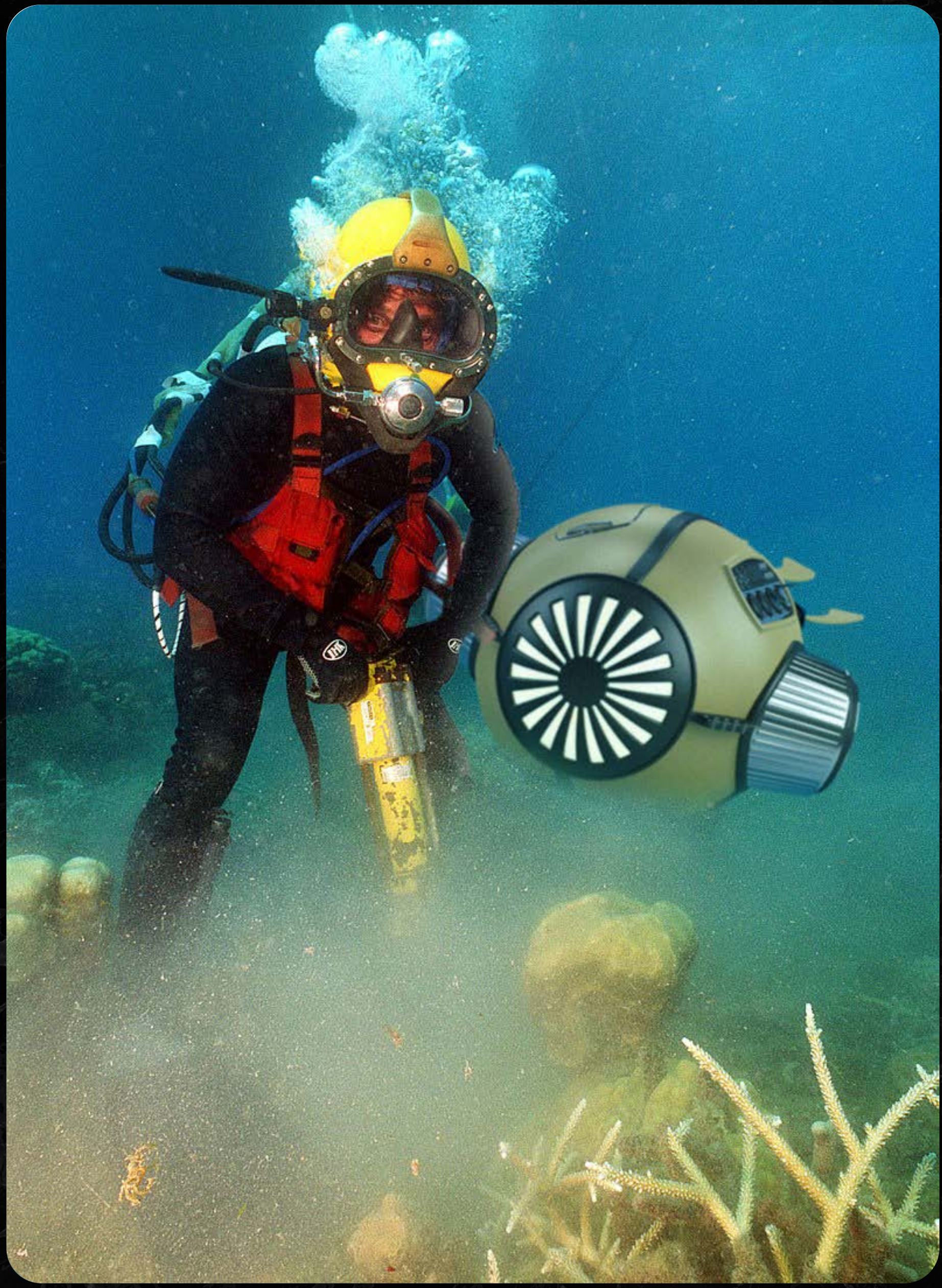


Final VERSION



The final sketch leans much further into mimicking the look of the little fish it takes inspiration from. This form has a light up front, small flippers in the back, a streamlined body and rubber lining strips that outline key components.

The silhouette takes a lot of inspiration from Colani's work. It incorporates his curvaceous style and streamlined look. There are no corners or hard edges in the final design.



Under CONSTRUCTION

A perfect companion for subaquatic workers. The construction model has a range of features to make operation in underwater environments easier. Specialized non-invasive plugs work deep underwater, while the on-board tool chest and gear loops make it easy to keep track of equipment on the job.



Tool Chest

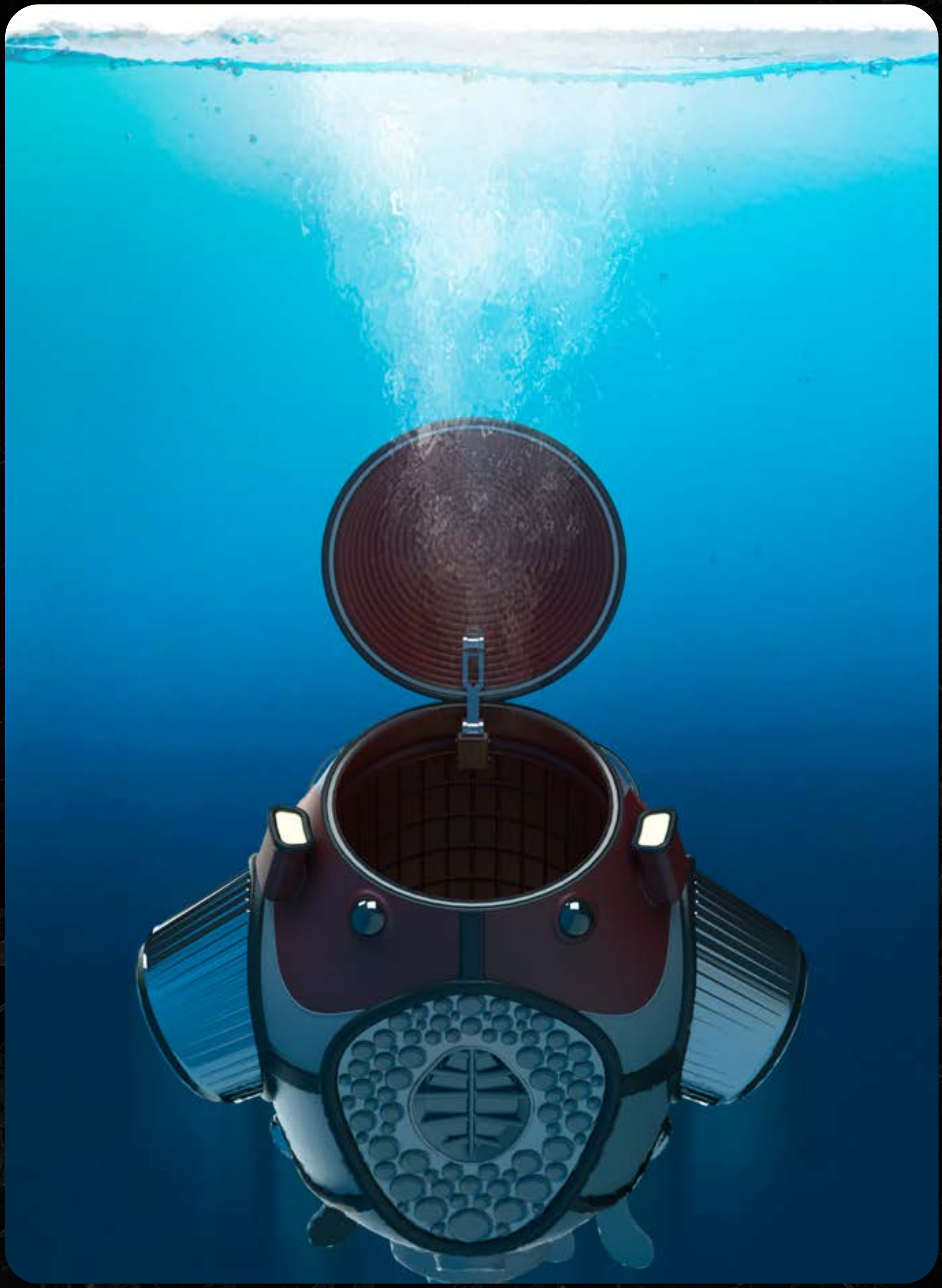


Gear Loops



Generator Control





To The RESCUE

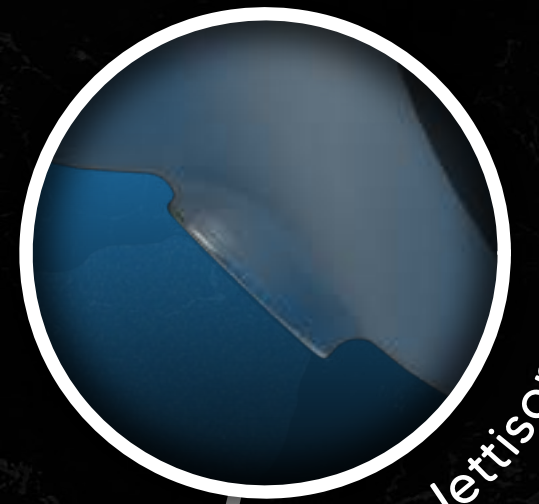
The rescue model launches into action in cases of a man overboard. Cameras scan the area for an unconscious or struggling passenger. The triple-jointed hinge lends the door its ability to gently “shovel” into its target into the padded inner compartment. From there, pneumatic pump clears out the water while an on-board oxygen tank replenishes the air.



Air-Tight Latch



Oxygen Supply

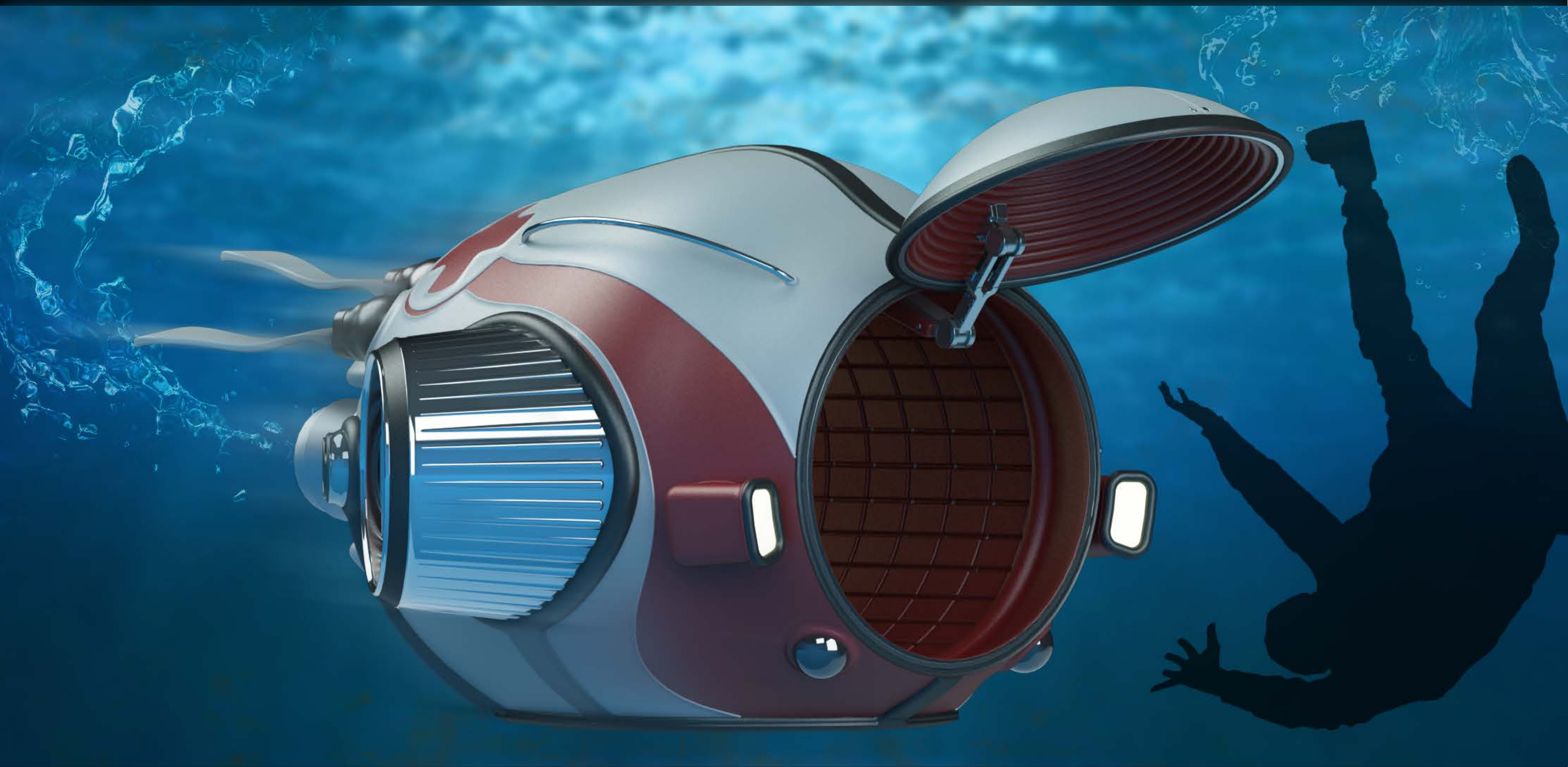


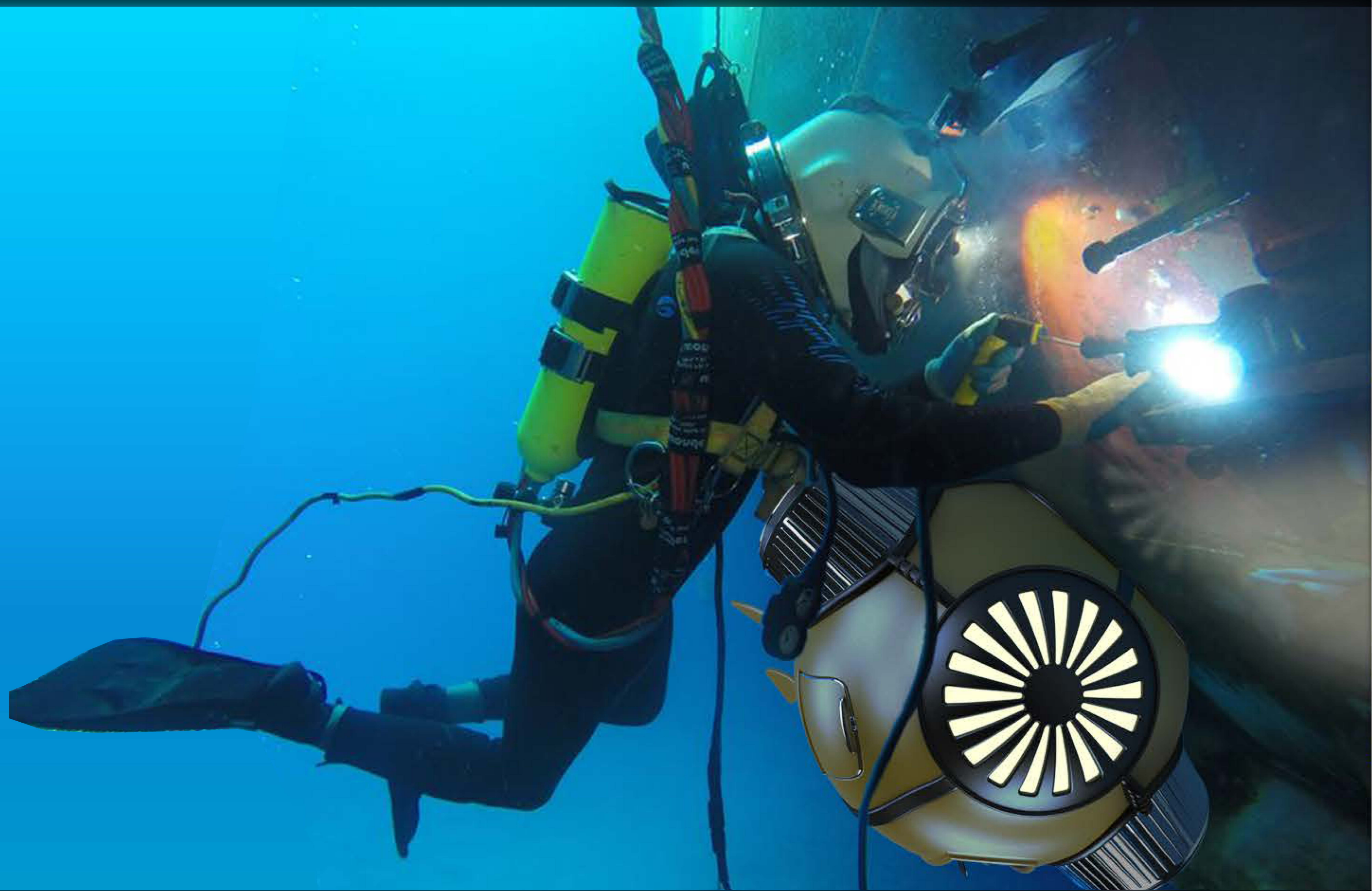
Water Jettison





Final Version





03 CARTON

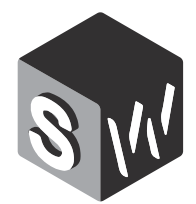
A new recycling system on the cutting edge of tech

Prompt:

Use modern technology to reassess the way we recycle our packaging waste

Concept:

A two part ecosystem consisting of an automated recycling plant and a self piloting waste collector that can be ordered via an app. With AI cameras to assess cardboard quality, this robot would only accept clean material and reward users financially. Our company would sell this processed material.



Solidworks



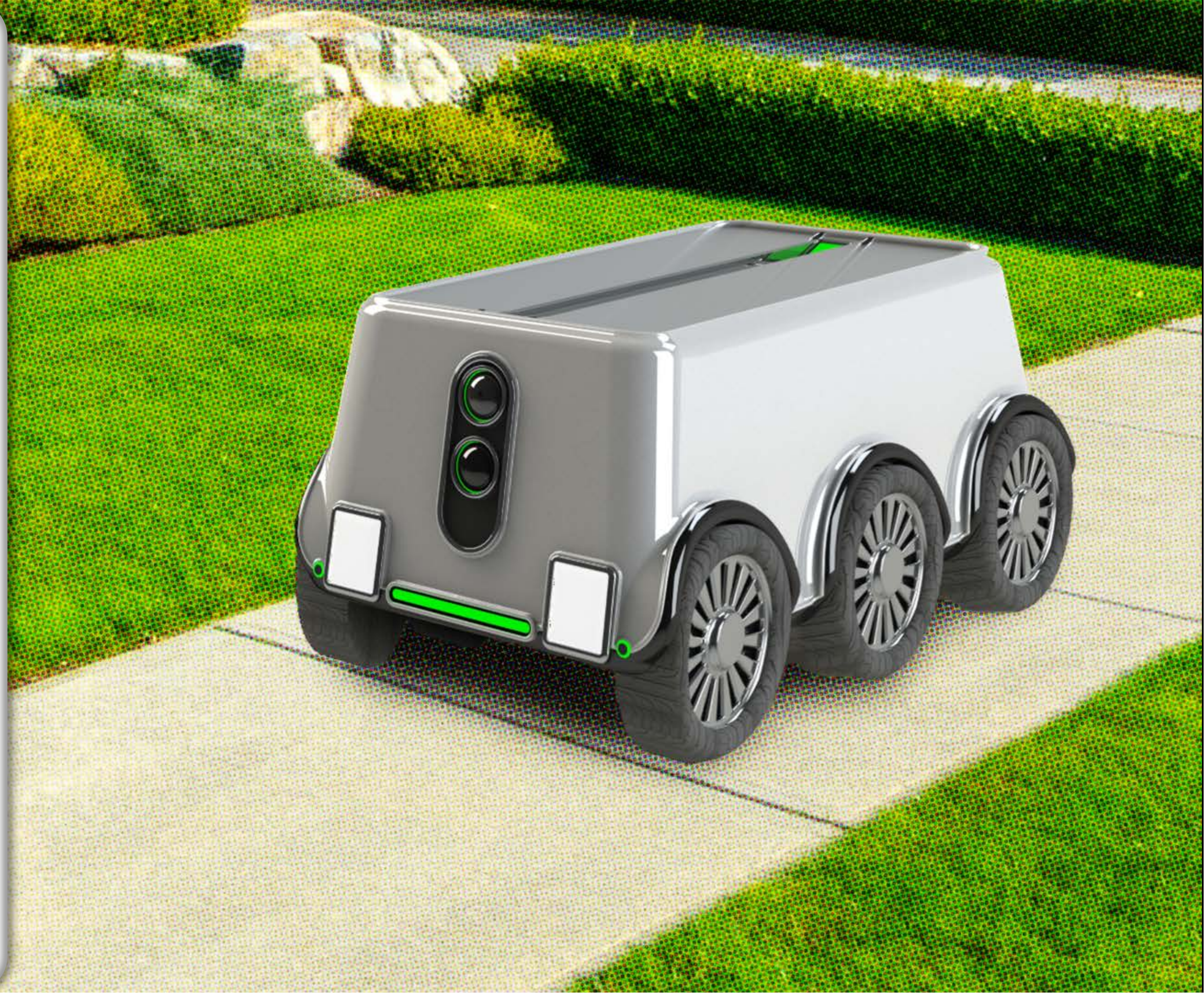
Keyshot



Photoshop



After Effects



Understanding THE PROBLEM

To find a solution to the waste problem, we needed to get our heads around it. We pulled a few statistics and read up on how much cardboard gets wasted every year, how much gets used, and how much gets recycled. Understanding the ramifications and possible footholds on the problem gave us a good place to start.

One hundred sixty-five million packages are shipped in the US annually, and the cardboard uses more than **one billion** trees.

Information from [Recycling Revolution](#)

Just Amazon ships an average of 608 milion packages each year, which equate to (an estimated) **1,600,000** packages a day.

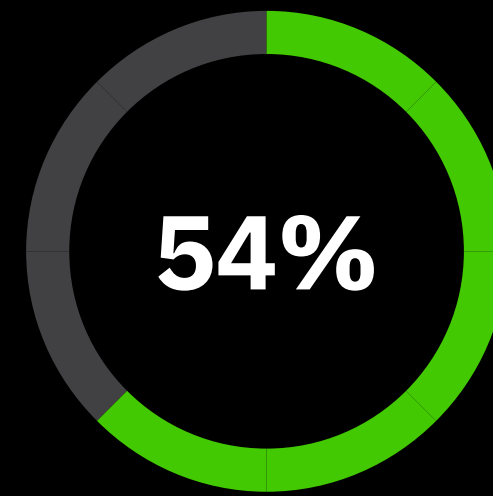
Information from [ModernRetail](#)

User SURVEY

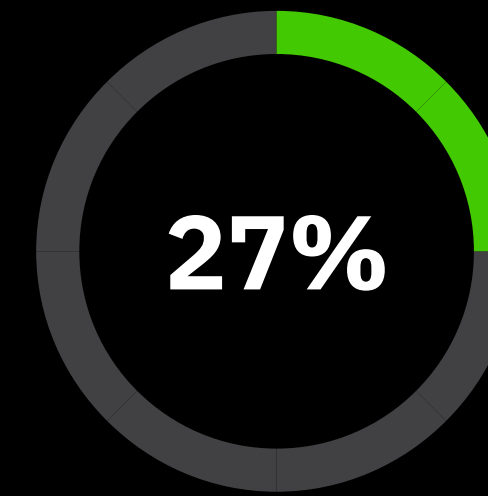
To begin exploring potential solutions we put together a survey. Knowing how often and in what ways a user faces a problem or pain point.

We were also able to see potential areas of interest in product solutions. We asked what mattered most to our participants when it came to the products and services they use and enjoy.

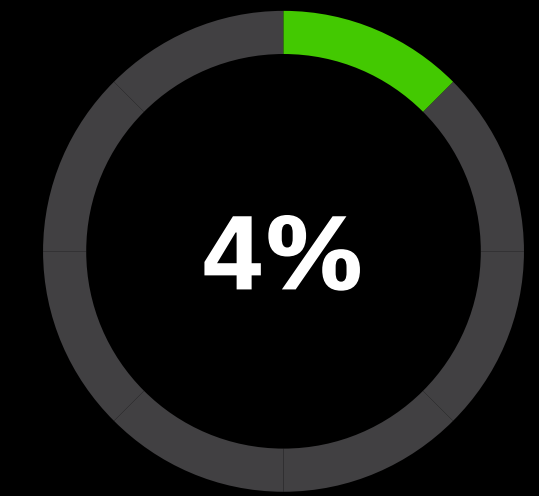
Online shopping frequency :



54% once a week

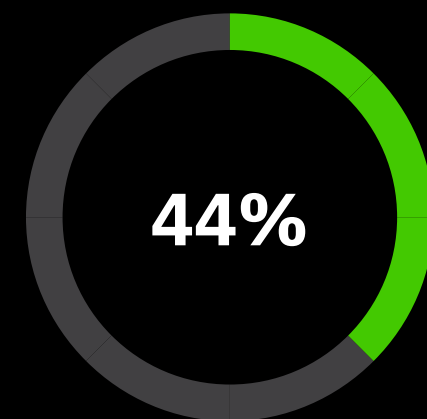


27% 2-3 times a week

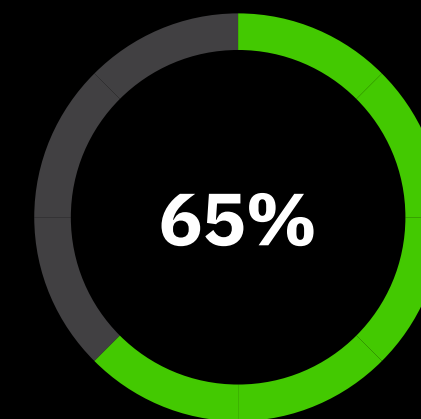


4% 4-5 times a week

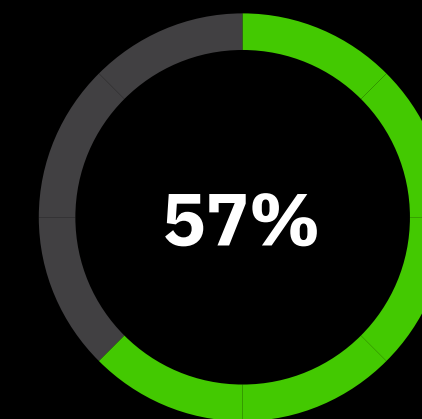
Package curoosity :



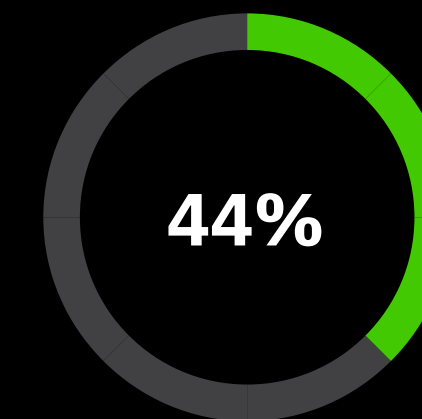
44% Environmental friendless



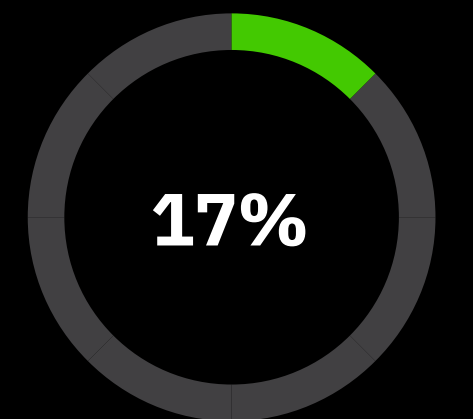
65% Safety



57% Ease of dissemble



44% Resuability



17% Aesthetics

Background

User TESTING


To test our product out, we built a model out of foamcore board to simulate the user experience. We put wheels on the bottom and a slit on top to the device could "arrive" and the user could "shred" some of the provided materials. We made sure to include some cardboard sheets that were too big or awkward to fit so we could see how our test users responded.



User PERSONAS

We created two user profiles to help us imagine our product in action. The first, Bernice Jackson, was an older adult, a retiree, and a grandmother. The other, Claire Stilwell, was a highschooler, an environmentalist, and lives on the opposite coast. We felt this would give us a solid range to explore.

Bernice Jackson



Bio
Bernice Jackson is a grandmother of 9 grandkids, she very elderly at this point in her life and retired so now a days family is what matters to her most since she has moved on from career.

Goal

- Spoiling grandkids, making sure grandkids eat and feel comfortable.
- Buying more stuff for her house for the decor.
- Writing her book and watching Jimmy Swagger.

Interests
Bernice waking up at the crack of dawn to make pancakes and making sure grand kids are reading.

Eco Conciousness
Medium, shes beleives in global warming and the waste issue

Quote
“ I want to see a better world for me grandkids and kids growing up everywhere

Personality

- Humorous
- Calm
- Easy Going
- Optimish
- Educated
- Hardworking

Likes


- Kids
- Flowers
- Gardening
- Grandkids

Dislikes

- Wasting leftovers
- Too many buttons

Metadata:
AGE: 65
EDUCATION: University of California, Berkeley
STATUS: Single
OCCUPATION: Retired
LOCATION: Peachtree City, GA
SALARY: No salary, she's retired.

Claire Stilwell



Bio
Claire is a highschool student with a passion for science. She hopes to one day be a marine biologist, and is currently researching colleges to apply to. She does well in school, both academically and socially, but wishes she had more financial freedom in her life outside of school.

Goal

- As a career, Clair wants to be a marine biologist
- She wants to contribute to sustainability
- She wants to develop some financial freedom and have spending cash

Interests
Claire is interested in social causes, especially causes involving education, womens rights, and above all sustainability.

Eco Conciousness
Very high. Claire cares a great deal about being eco-friendly. She encourages her family to recycle, and is often reading news about global warming

Quote
“ Of course the environment is my biggest political concern. Without our planet, no other cause will matter.

Personality

- Driven
- Passionate
- Educated
- Empathetic
- Independent
- Intelligent

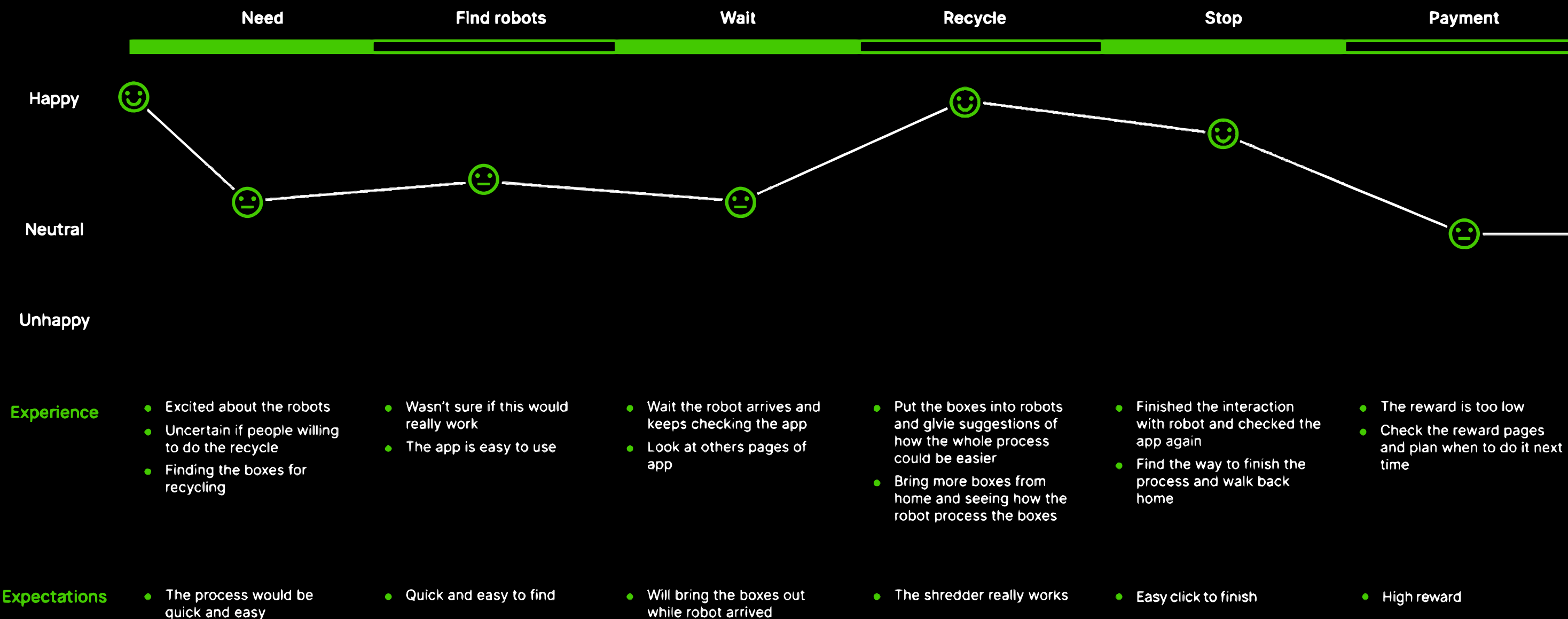
Likes

- Activism
- Reading
- Hiking
- Photograpgy

Dislikes

- Fast Food
- White Chocolate
- Waste

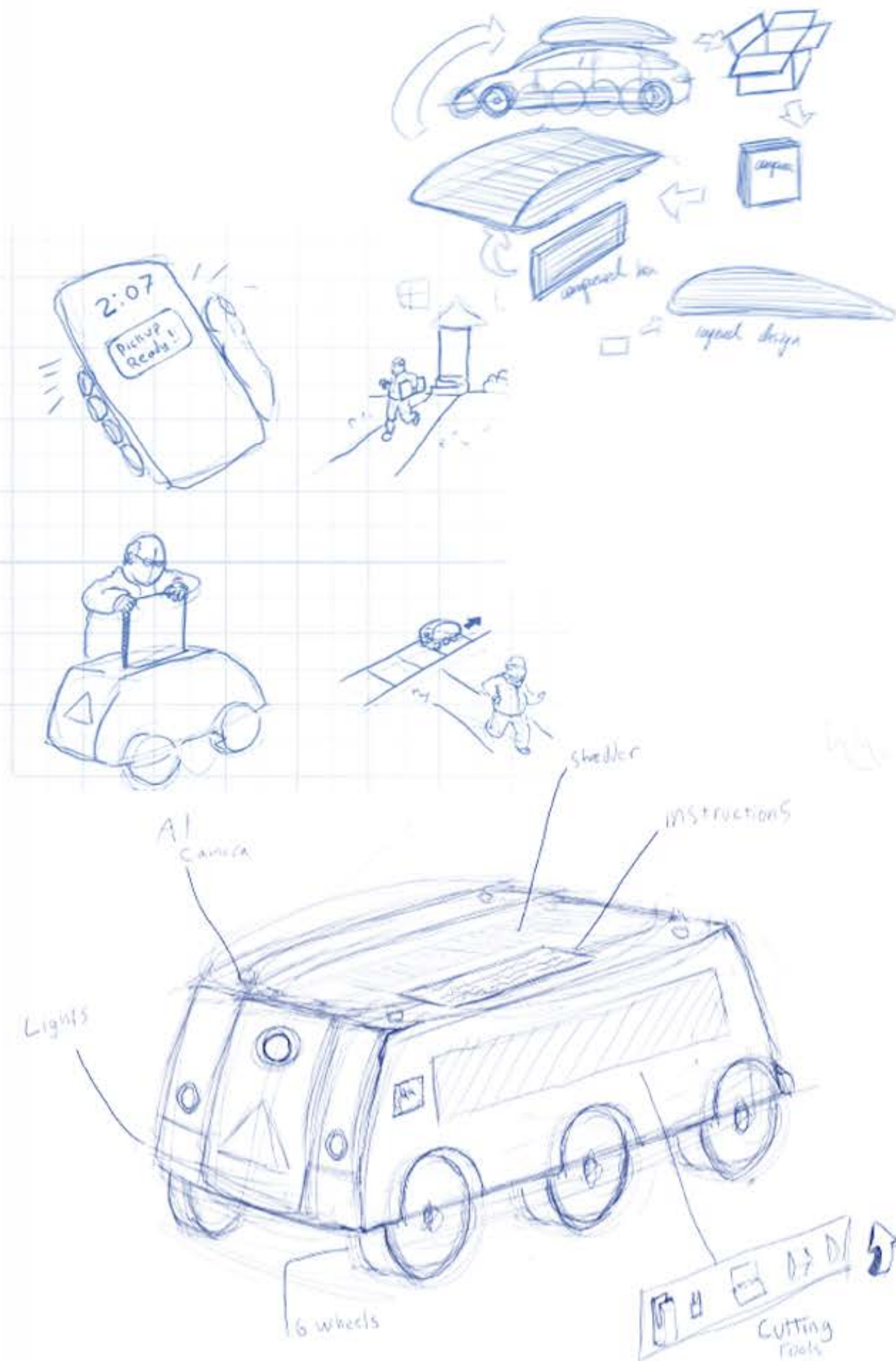
Metadata:
AGE: 16
EDUCATION: Cristo Rey New York High School
STATUS: Single
LOCATION: New York City, NY
SALARY: \$ 0, she is still a student with no income



User JOURNEY

To further explore our product experience, we drew out a map of potential user's jour-ney with it. Through this we found our weak points and knew what to measure for during user testing.

Design



Final VERSION

The final version was a self driving robot that could be ordered using an app. It would scan material to check for stains before activating the shredder, process the goods, and return a weight value to the app to calculate reward payout.

Final Version



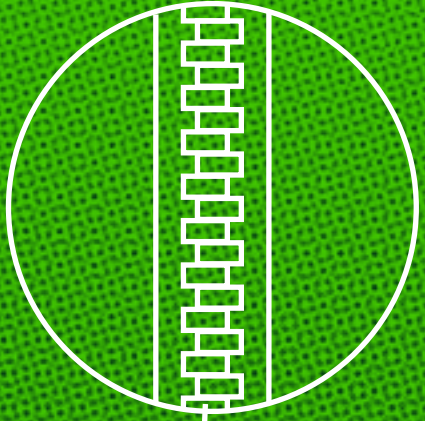
AI Camera

Scans material and accepts if clean. If so, it activates the shredder



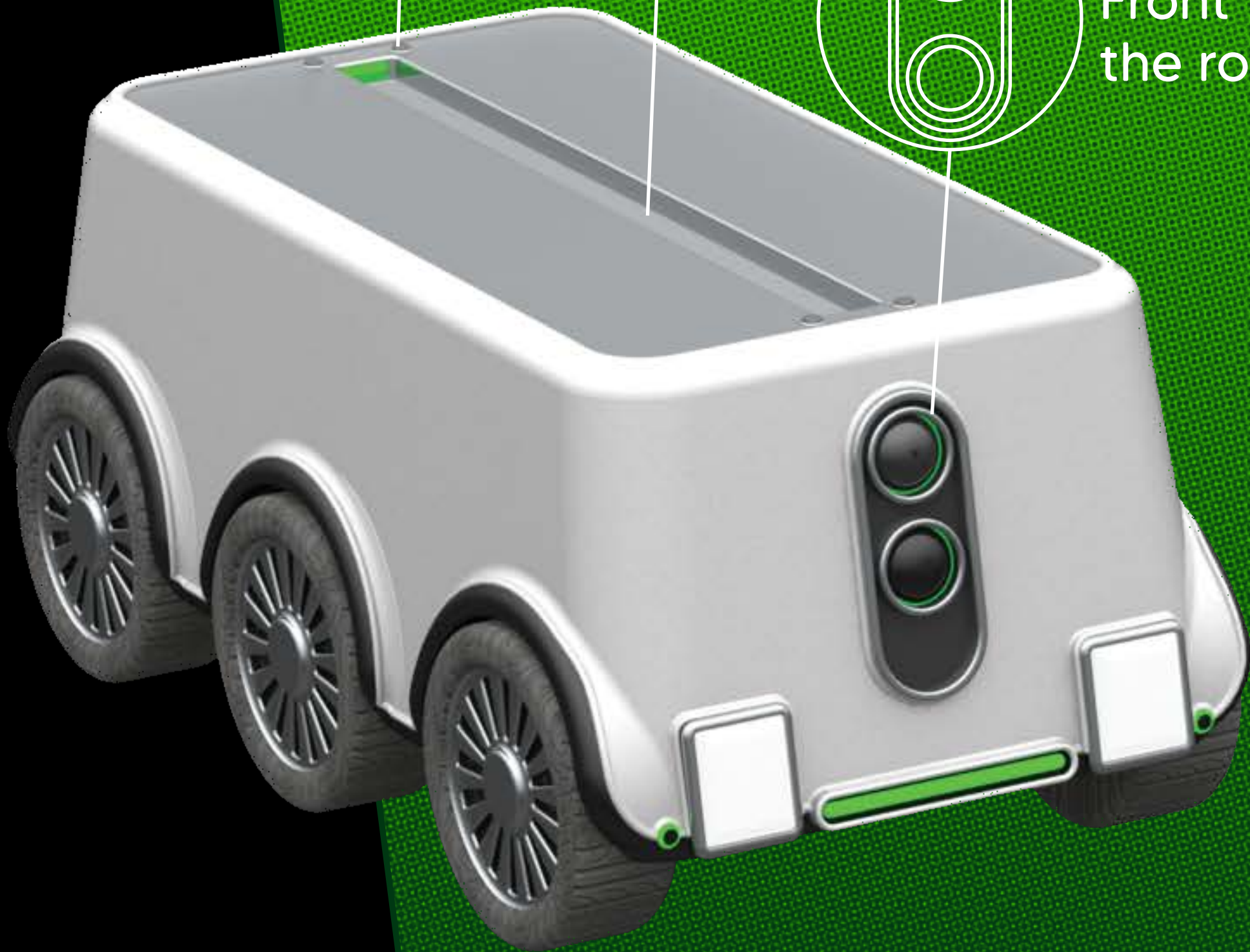
Shredder

the first stage of processing, automatic, but only operates when the cameras allow it

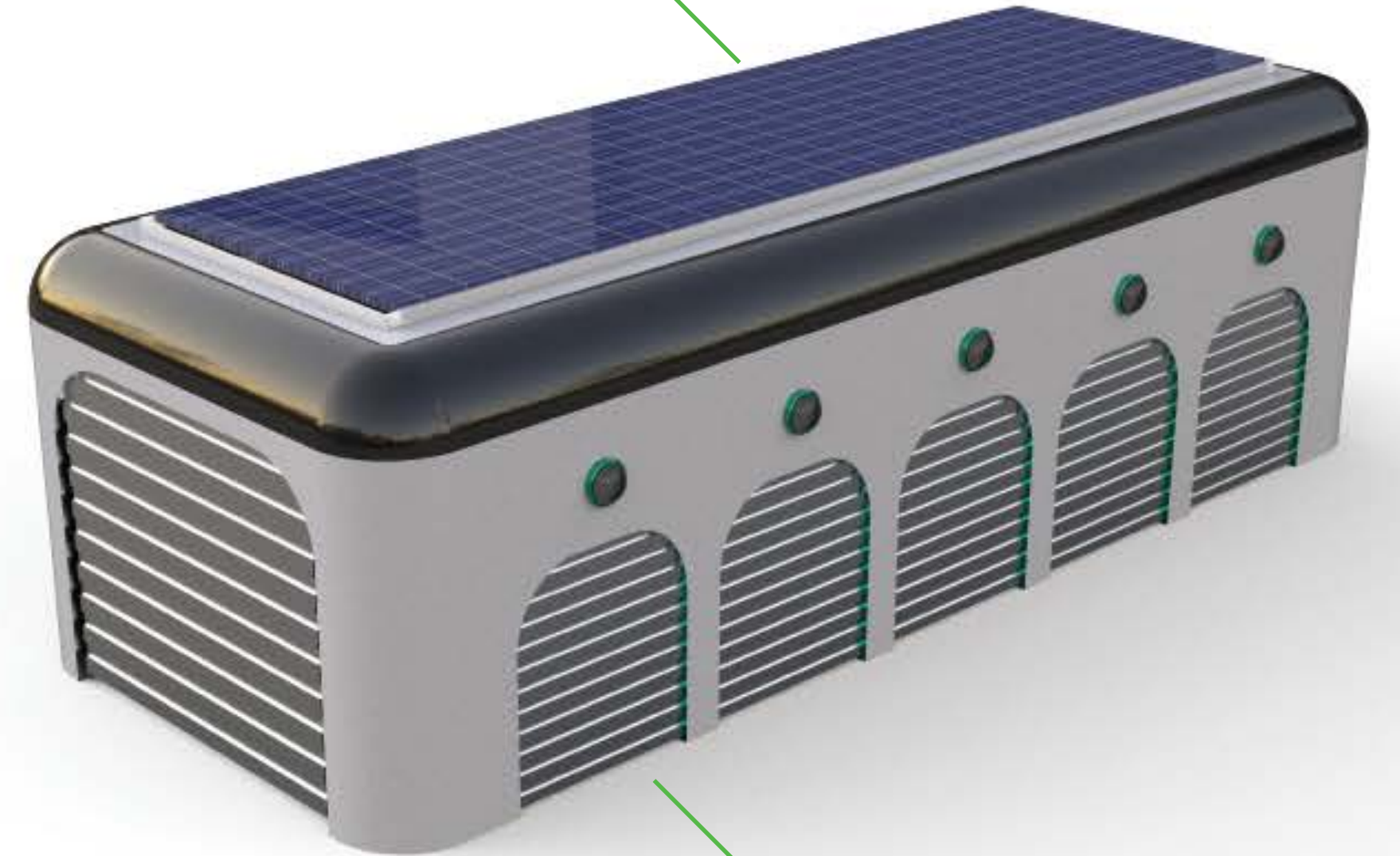


Eyes

Front facing cameras that guide the robot to the recipient



Solar Panel Roof



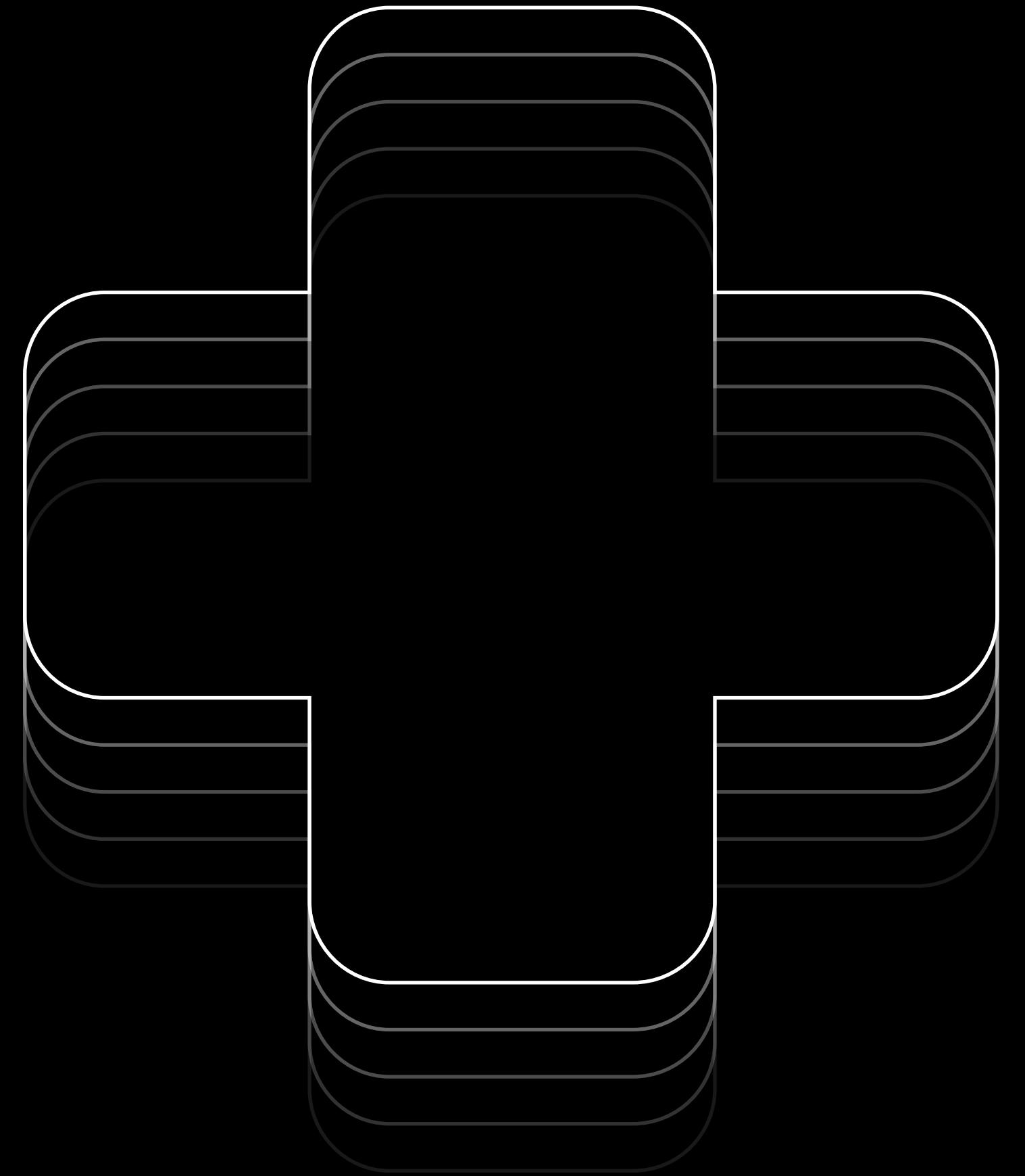
Docking Station

Loading Bay



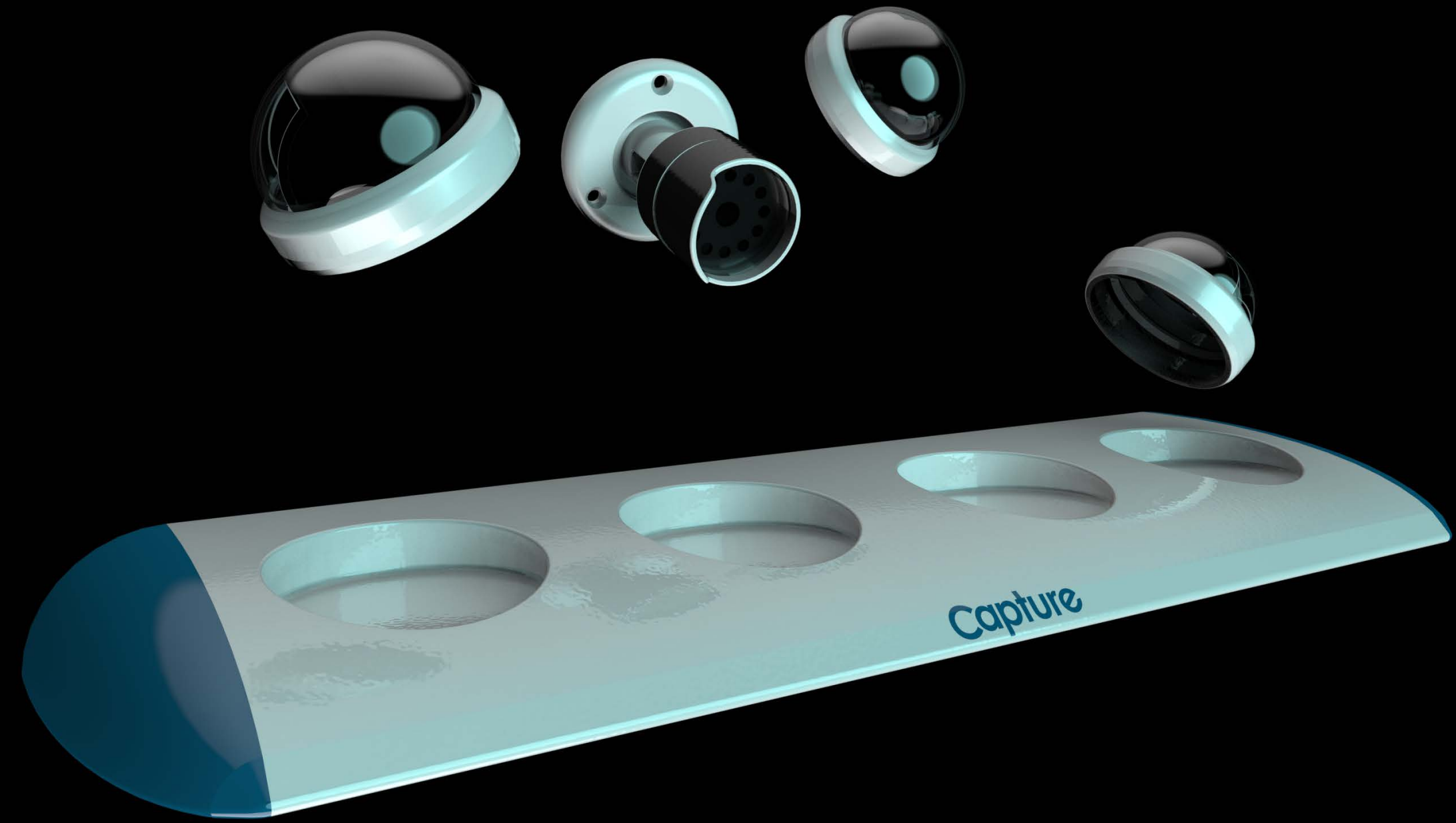
Carton

Extra Work



ADI
a resideo company

Capture



WHAT IT IS:

An end-cap display to increase awareness of ADI's new line of cameras by letting prospective customers interact with and engage with the products directly. Lifting up a camera from the dock would trigger its ceiling mounted counterpart to send its feed to the display screen, along with crucial info about the camera and product line



AL DISTRIBUTION

PLUG TO
SMART
HOMES

Commercial fire/intrusion

Commercial fire/intrusion panels

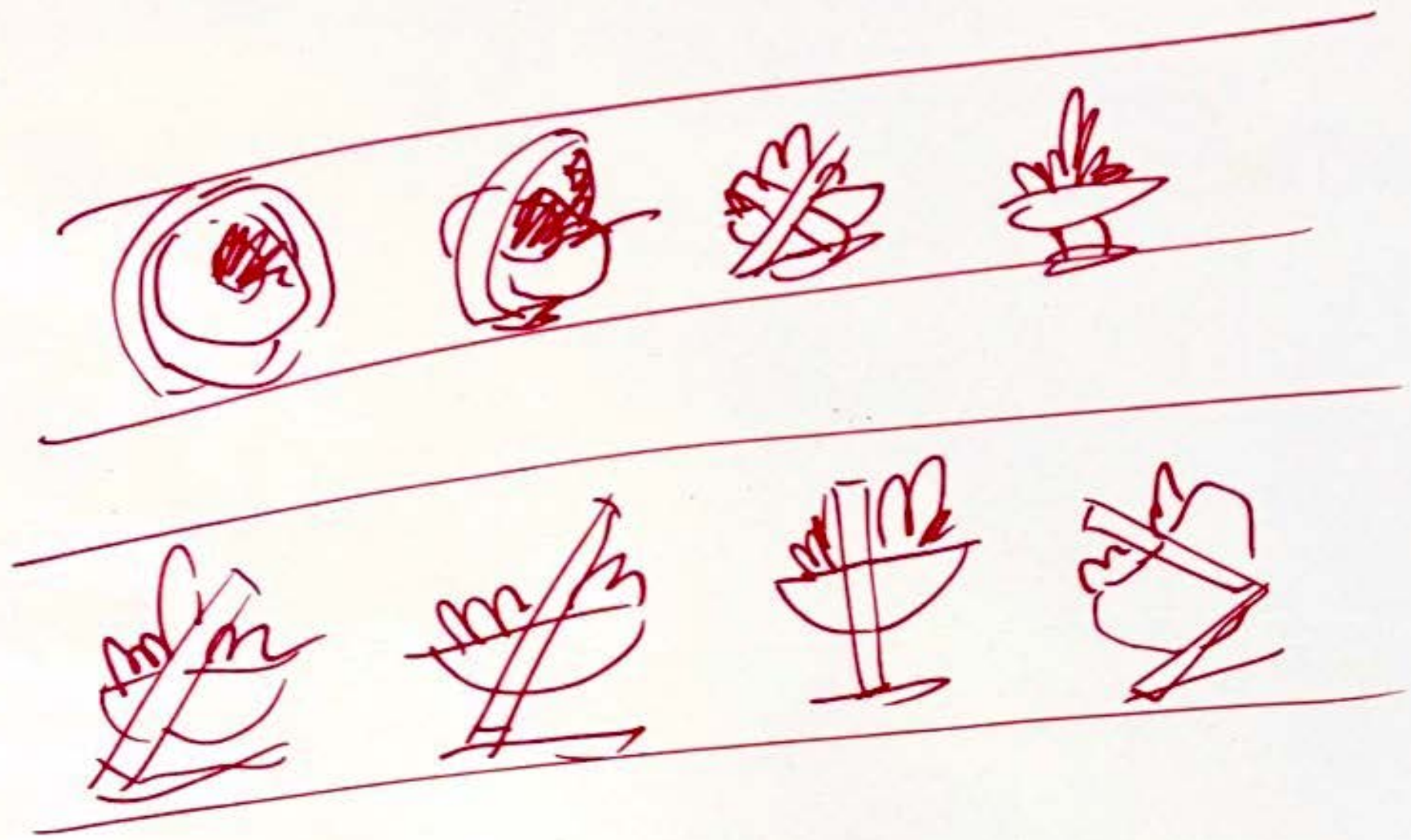
Maximize Account Longevity with LTE

The Future of Your Business with LTE

AD
Advanced Digital Imaging

AD
a residential company

Capture



WHAT IT IS:

A table lamp and planter that plays with design elements like balance to form a perplexing and seemingly impossible form. Light is worked into the structure itself, and the bowl is meant to appear floating above its lower plate.





DUOLINGO CHALLENGE *Clarify Global Goals*



TERRITORY

Clean Up, Gain Territory

Save the planet as you take it over! Territory works with local waste disposal plants to document every bit of litter you bring in and reward you in game by expanding your control in the region you helped clean. The more you pick up, the further you can expand your team's empire.



Save the World, Show Off

Customize and level up your in game character by getting outside and cleaning up the environment!

Stay active and engaged with weekly challenges and leaderboards to fuel your competitive spirit!

Keep yourself educated with recommended articles and informational guides!



ILLUSTRATION 2020

DARK DESIGN *Designing Without Ethics*



FORGE

Head Space - Dark Safety - Double Control



Target Your Rivals

Forge offers a collection of jobs options to put the hurt on any individual you need taken care of. With features like Deepfake, Info Phishing, and Text Fabrication, Forge allows you the competitive edge you need. Have to occupy a rival with a P.R. catastrophe? Or maybe you need to get them out of the game completely. The comprehensive suite of features is just the arsenal you need.



Cover Your Tracks

When your mind is on your own affairs, Forge also provides a host of features designed to give you a fool-proof safety net. Gotten yourself into a little trouble? Need a little adjustment on those tax records? Don't sweat it. With the ability to fake documents and GPS data, we will do your homework or fall guy. Forge can get you out of cuffs and back into our lives.



ILLUSTRATION 2021

Ovadia Cohen's PORTFOLIO

PORTFOLIO
OVADIA COHEN / INDUSTRIAL DESIGN / 2022

Portfolio
Ovadia Cohen / Industrial Design / 2022

Ovadia Cohen's PORTFOLIO

PORTFOLIO
Ovadia Cohen

Ovadia Cohen's Portfolio

Dr. AirWair Martens



YSNOW FLAKE

Thank You