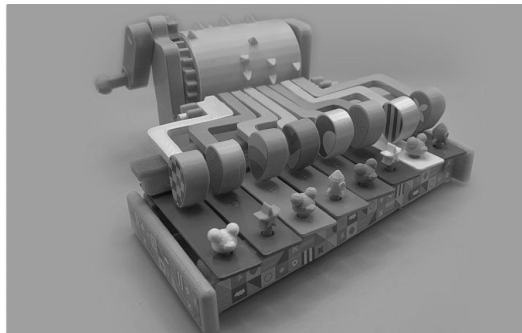
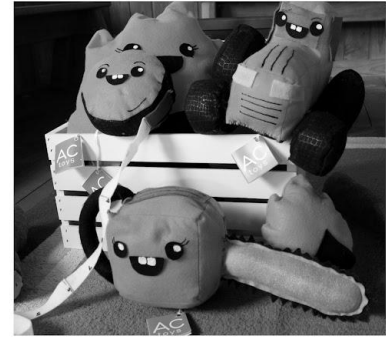
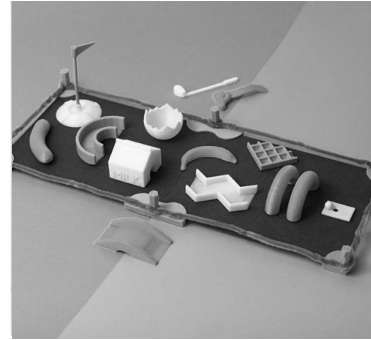
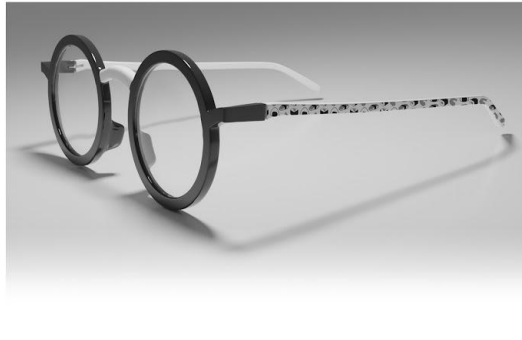




Industrial Design Portfolio

Elexis King

Portfolio website | <http://elexisking.com/home/>



NASA Apollo Lunar Roving Vehicle



NASA Apollo Lunar Roving Vehicle

The Lunar Roving Vehicle (LRV) was an electric vehicle designed to operate in the low-gravity vacuum of the Moon and to be capable of traversing the lunar surface, allowing the Apollo astronauts to extend the range of their surface extravehicular activities.



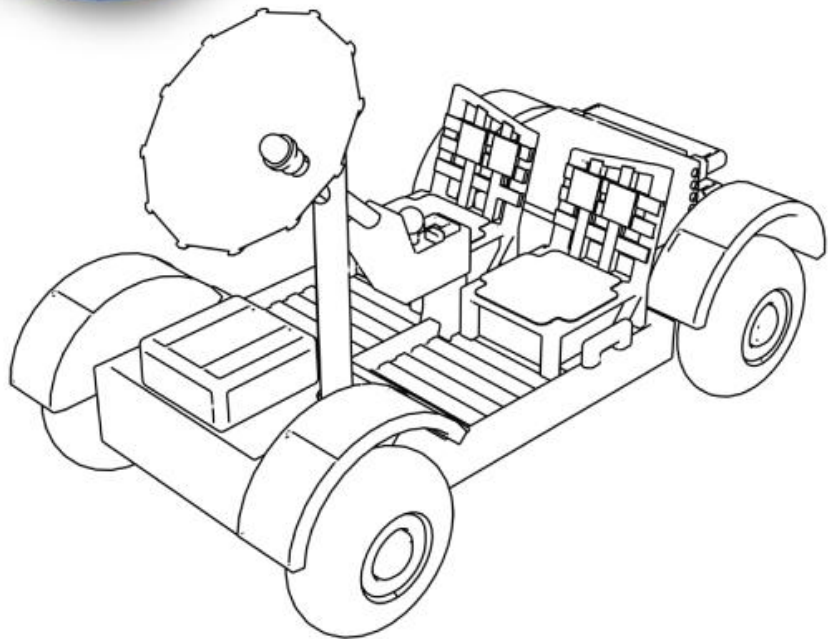


APOLLO LUNAR ROVING VEHICLE - LRV

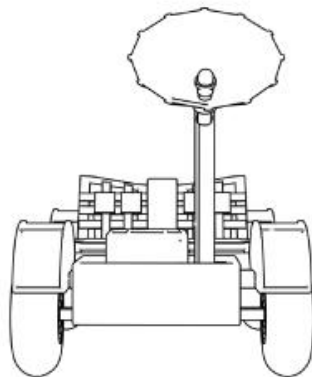




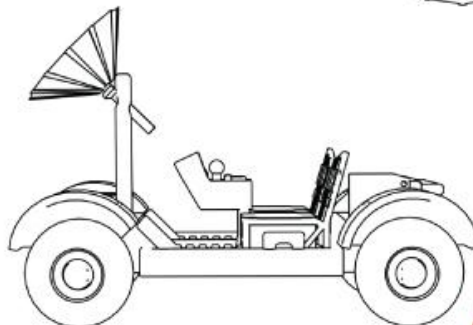
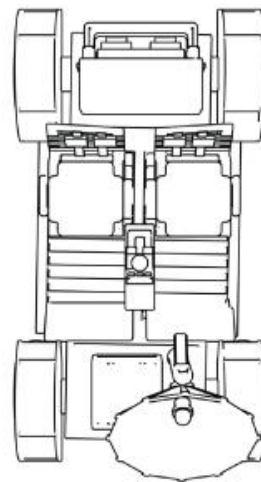
APOLLO LUNAR ROVING VEHICLE - LRV



FRONT VIEW



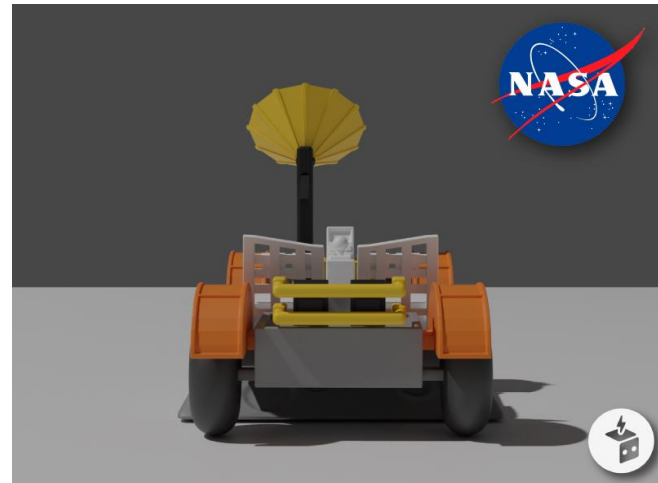
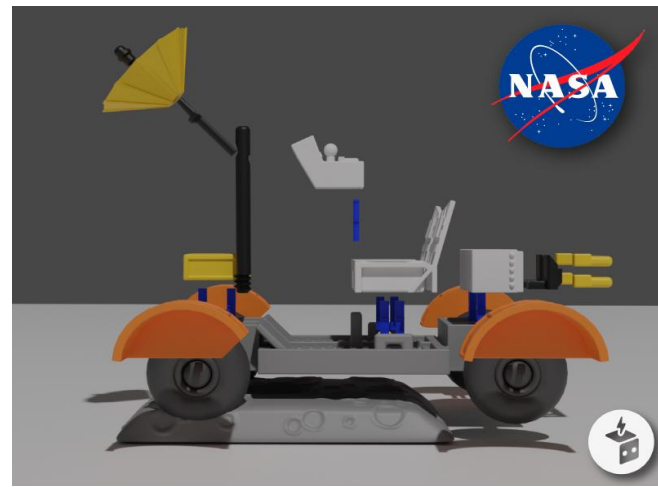
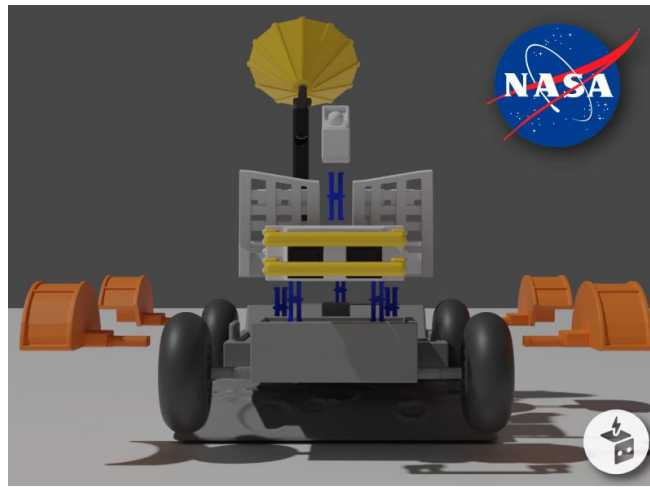
TOP VIEW



SIDE VIEW



Assembly Renders



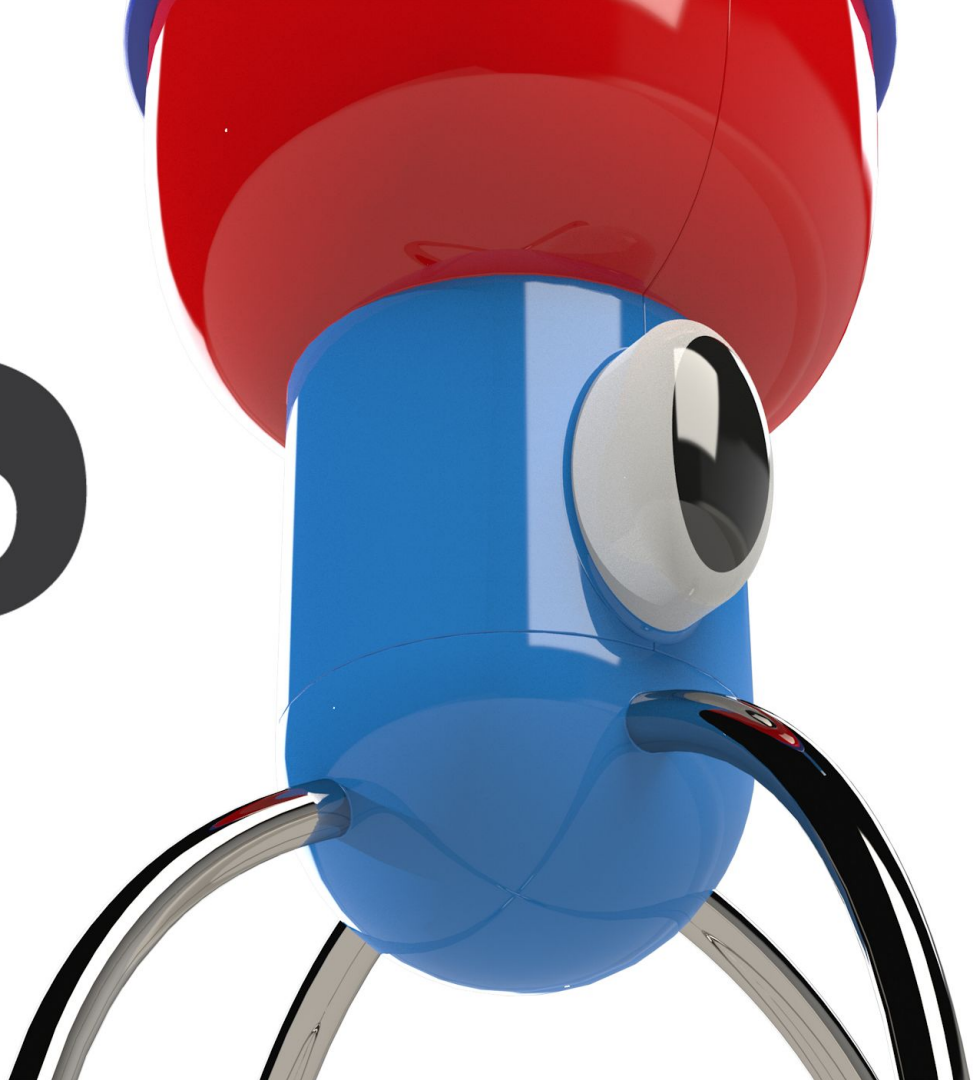




Designed To Be Donated

These particular pieces were designed for a local fundraiser called AIM For the Stars. This is the annual gala for local nonprofit Art and Its Meaning (AIM). These items were raffled off to winners and helped the organization in meeting its goals to bring art to the community.

the
SQUID



The Squid Portable Hand Mixer

The Squid is a fast, light-weight, portable handheld mixer for kids. The Squid brings fun and excitement into the kitchen while meeting the user's necessary ergonomic needs. Safe enough for small children, but durable longevity and versatility as children grow.



Sketches

Buttons for speed and on and off/pulse

Lights indicate speed

Rotates for mixing

Can be held up top or around grip

Attachment removable for cleanup and interchangeable parts

Grip section for safety and comfort

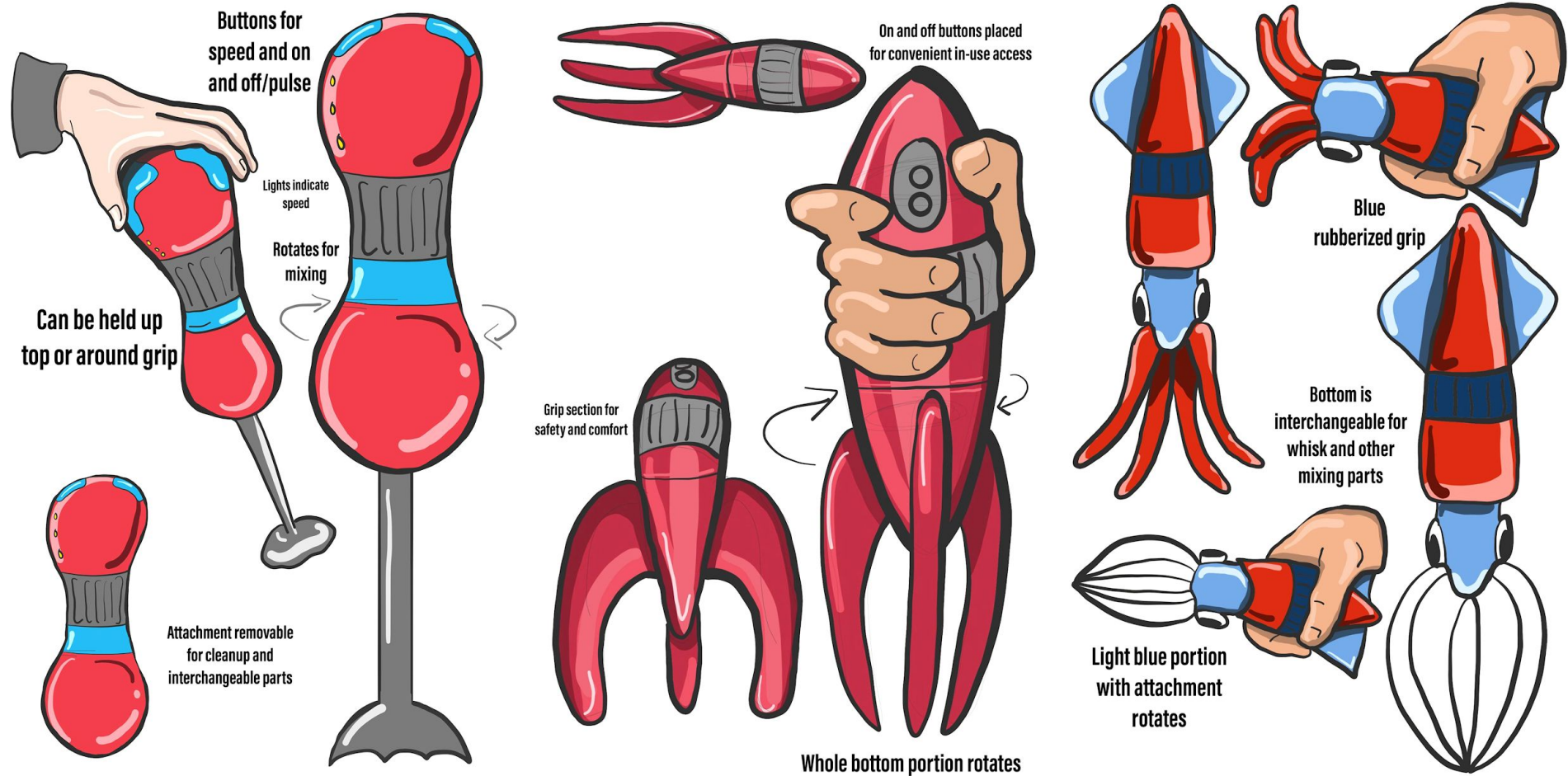
On and off buttons placed for convenient in-use access

Blue rubberized grip

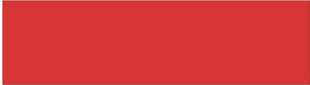
Bottom is interchangeable for whisk and other mixing parts

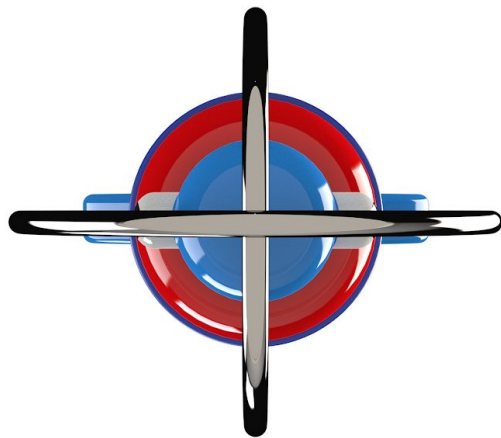
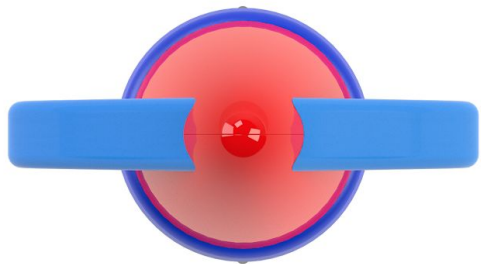
Light blue portion with attachment rotates

Whole bottom portion rotates



Mood Board



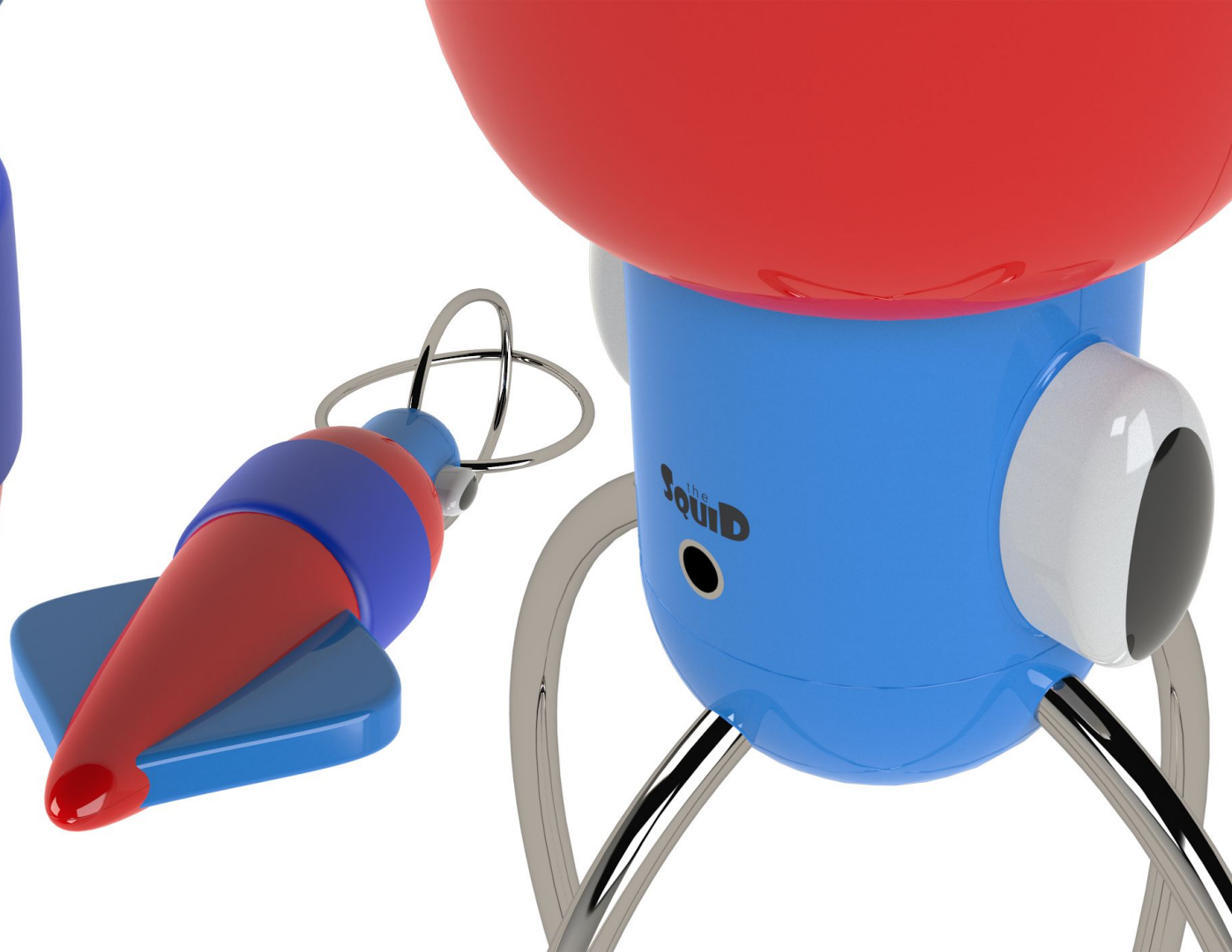


Fun Design with Practical Purpose

The Squid is designed with a detachable bottom and changeable mixing accessories for different food items. This starter attachment is easy to clean and safe. The shape is thin enough to fit into children's hands, but still sturdy enough to provide added support.

the
Squid







Full Sketch Model

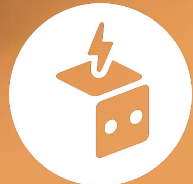
Fits nicely in the hand and works well for mixing function.

Color Material Finish

The Squid comes in three colors and has a comfort grip around the main body which can be easily removed for cleaning.



Toybox Music Machine

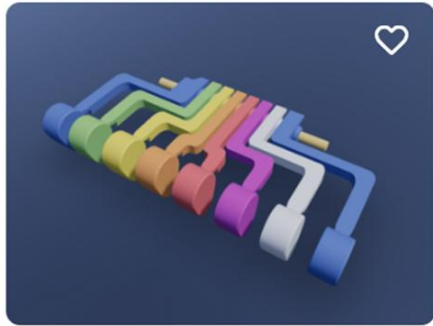




Music Machine

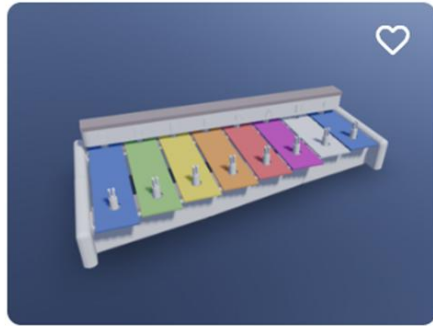
“Play Packs are guided activity kits that open up and inspire the creative possibilities of your Toybox printer. All kits come with non-3D printed components and creativity apps that allow you to design and customize each activity the way you want it. Kits ship every month and are crafted in a way that encourages imagination, personalization, and play.”

MUSIC MACHINE



Arms and Hammer Heads

🕒 2:35 ❤️ 97



Xylophone

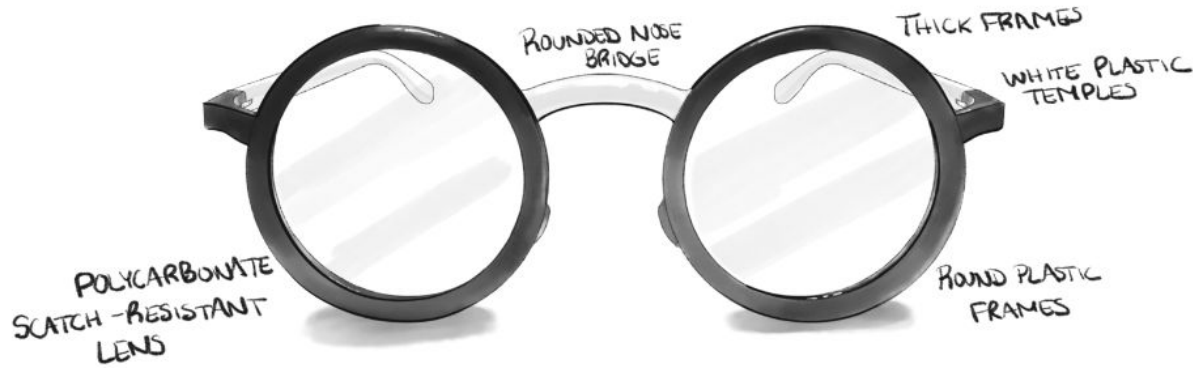
🕒 3:33 ❤️ 103

I served as the project lead for Music Machine and designed the 3D parts and worked with overseas sourcing team to develop the BOM, choose from sourced components, and implement those into the design. Our team worked together to come up with the idea to let kids use our in-house “Builder App” to compose and then print their own song to play on the Music Machine.

Sushi Glasses Design



DESIGN DETAILS



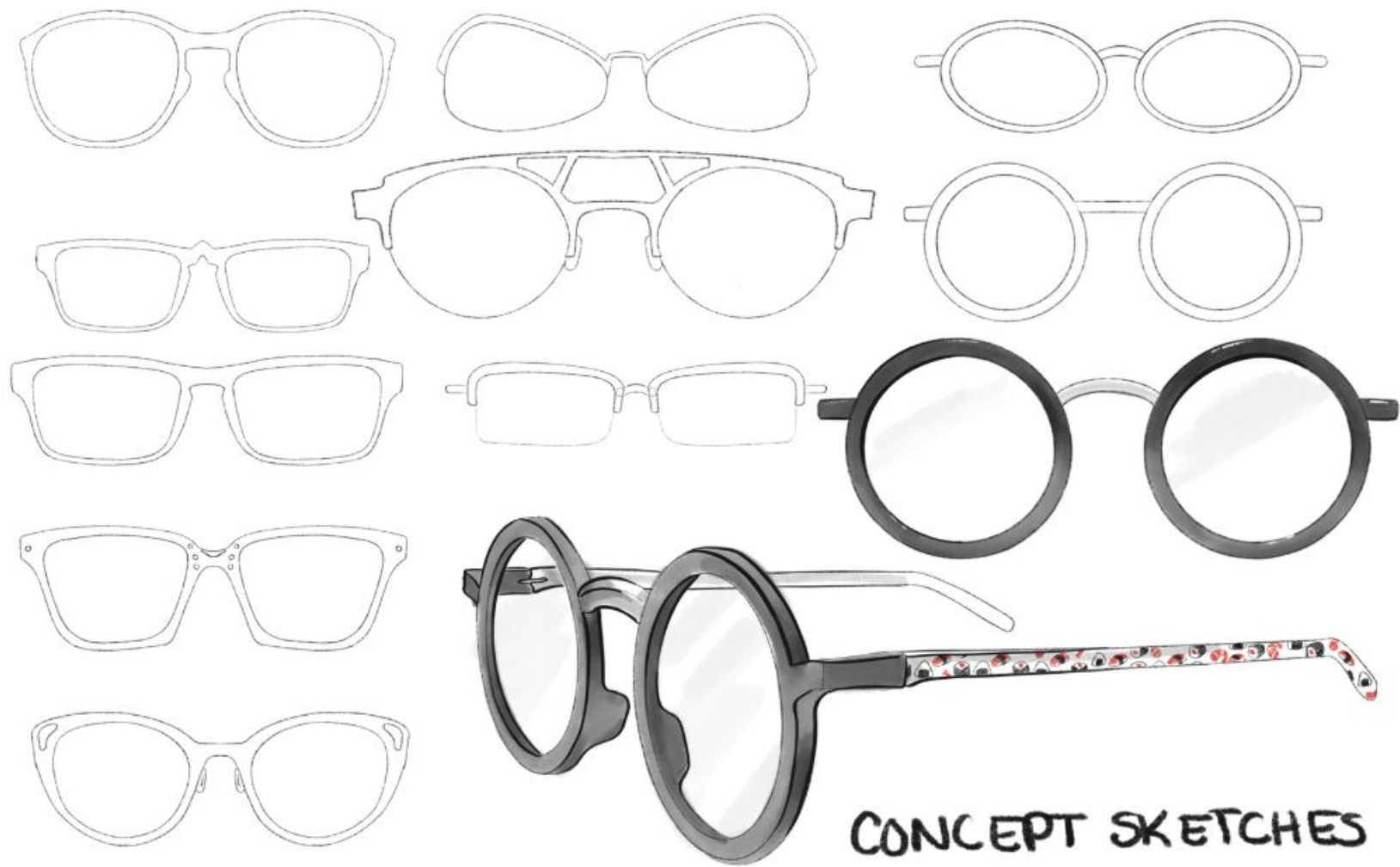
Sushi Glasses

Thick, simple, round frames sport a rounded nose bridge, white temples, and polycarbonate scratch-resistant lenses. These glasses are a concept piece developed by me featuring my sushi pattern as a design detail.

Pattern Details

A simplified pattern including shrimp, onigiri (rice balls), nigiri, and rolls.



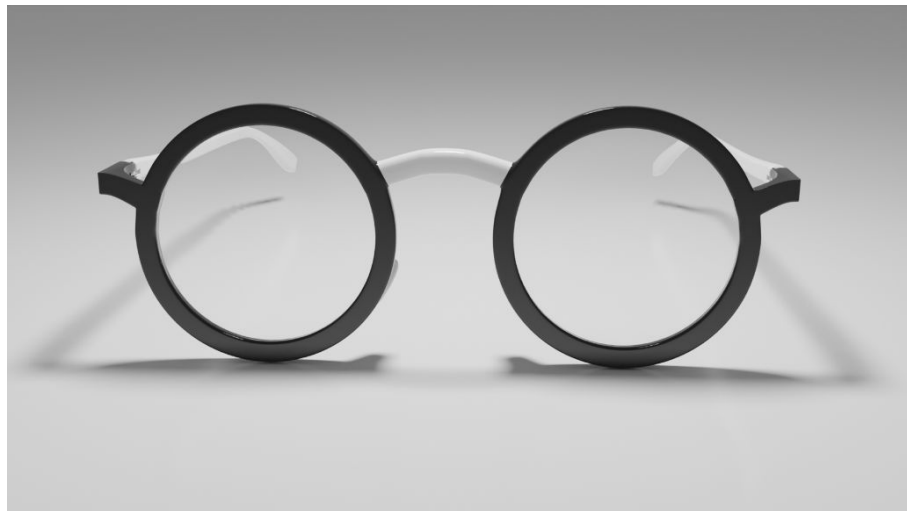
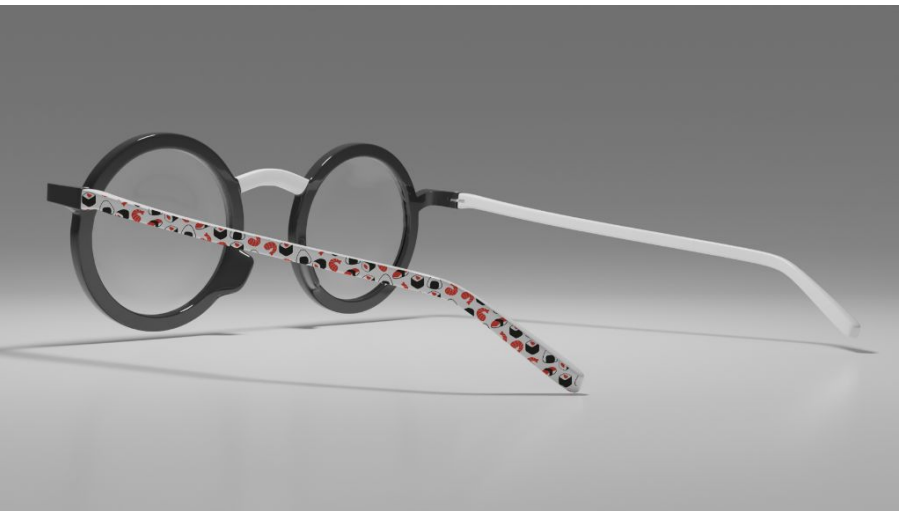
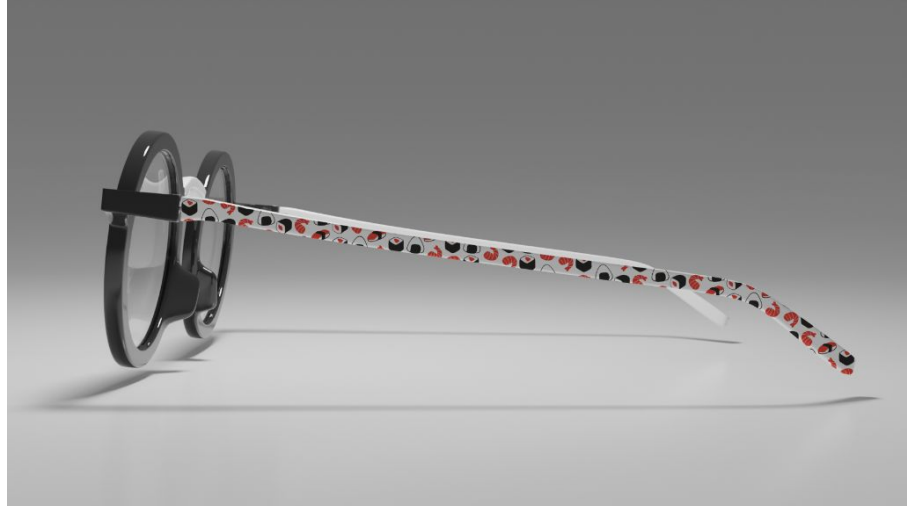
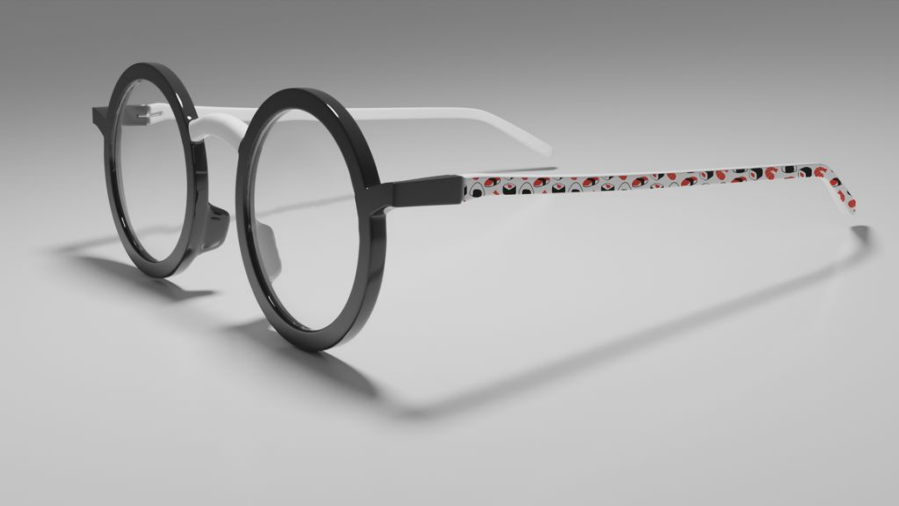


CONCEPT SKETCHES

Mood Board



寿司

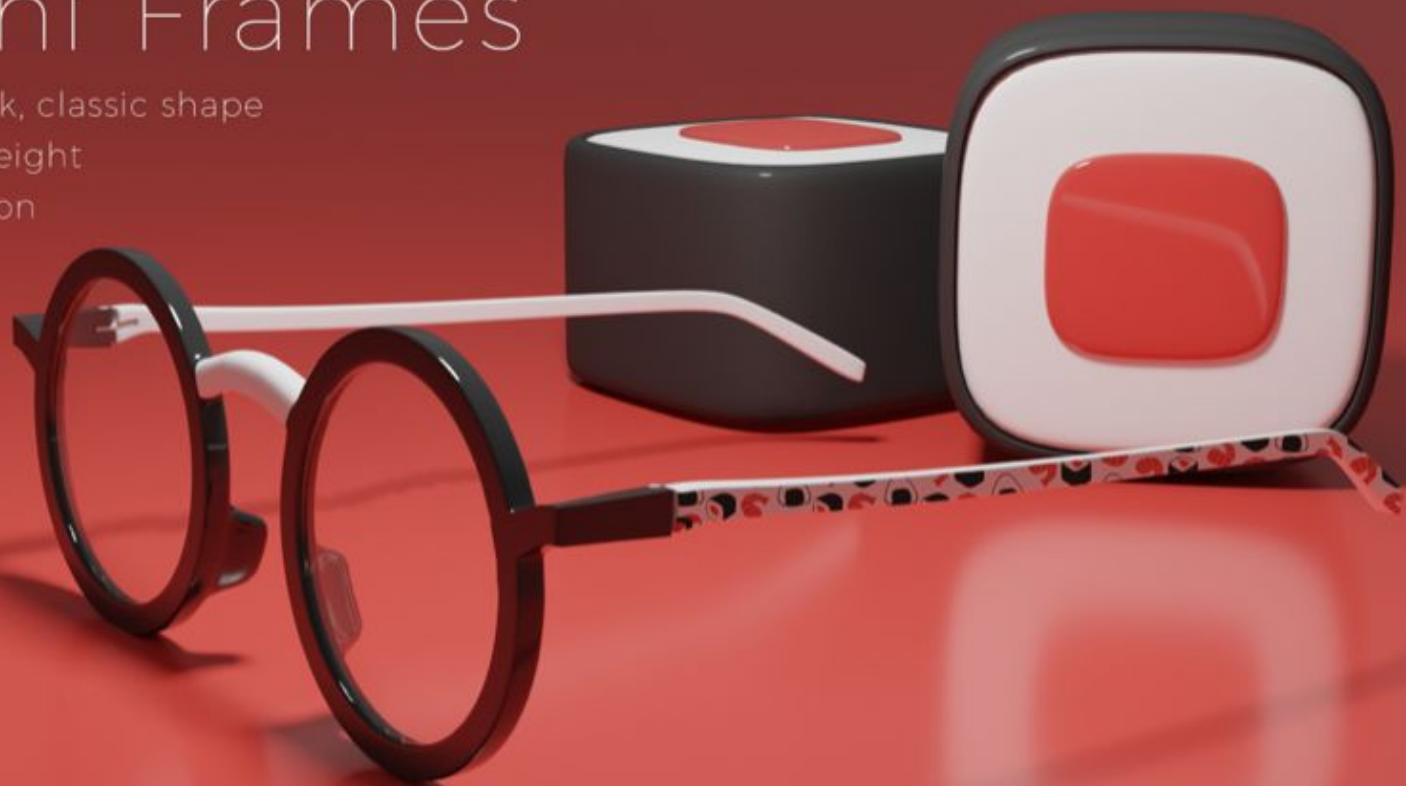


Sushi Frames

modern look, classic shape

ultra lightweight

UV protection





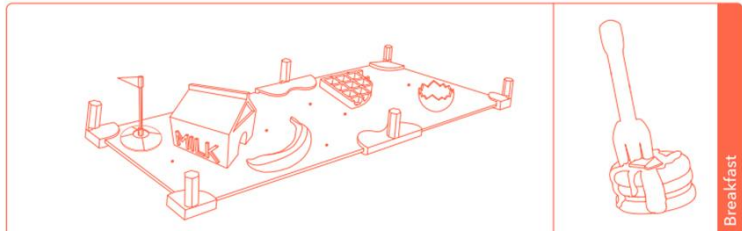
**Toybox
Mini Mini Golf**



Course Layouts

PLAY PACKS BY TOYBOX

Not sure what to build? Try these fun course layouts! Get creative - mix & match and customize your own golf clubs and obstacles.



👁️ 46 📄 47

👁️ 59 📄 50

👁️ 57 📄 33

👁️ 18 📄 41

TOYBOX

👤

BREAKFAST



Sausage Bumper
👁️ 19 📄 35



Cracked Egg Bumper
👁️ 24 📄 24



Banana Bumper
👁️ 9 📄 36



Milk Tuni
👁️ 51 📄 51

JUNGLE



Snake Obstacle
👁️ 41 📄 53



Rock Bumpers
👁️ 46 📄 46



Rock Tunnel
👁️ 1:08 📄 46



Alligator
👁️ 28 📄 5

🔍 EXPLORE

🛠️ CREATE

📁 MYTOYBOX

✉️ PLAY PACKS

👤 ME

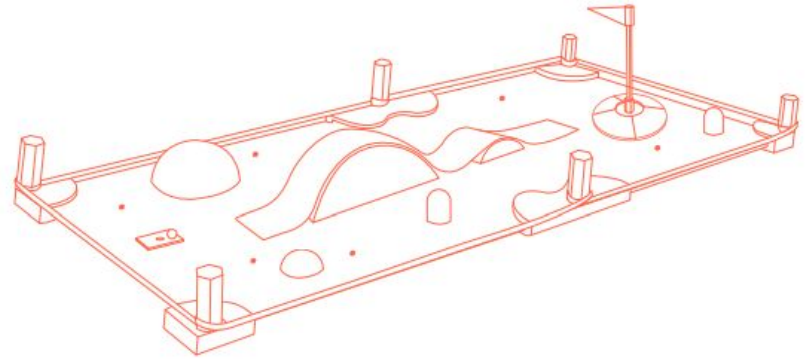
Mini Mini Golf

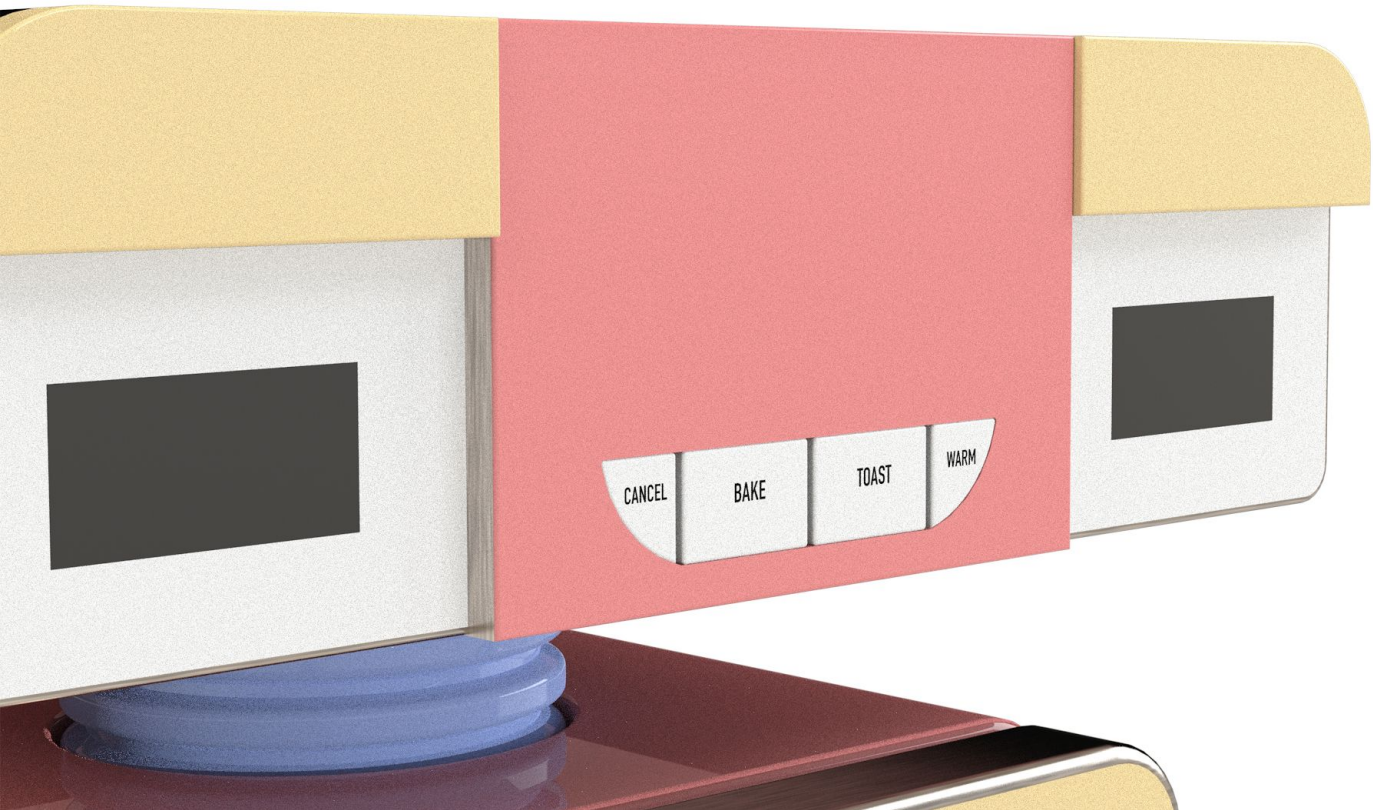
From BOM to finished product, I was the project lead as well as lead designer for this Play Pack. Beginning with initial mockups and prototypes, I developed the BOM with a limited budget. I worked with sourcing in China to find the most cost-effective and appropriate items including one-side adhesive felt (which we later got printed according to my mockups), wood boards, mini white golf balls, and pipecleaners to create fencing.

I then created three separate themes, a set of obstacles, and ramps and worked with our software engineer to develop pieces for the Play Pack's builder app: custom ramps and custom golf clubs. This was one of my favorite projects because of the level of detail and the customizability of the finished product.

Renders

One of the most important aspects of being a 3D printing company geared towards children is that pieces need to be able to print and function on a wide array of bed calibrations. In an ideal world, each user's printer would be perfectly calibrated with zero elephant's foot, but with Toybox, a lot of accommodations are made so that the pieces will still work regardless. Whether that's beveling edges or changing print orientations for the best possible outcome, a lot of considerations were made. The end result was a lot of fun and the pieces came out really cool.







Bake Bot

The Bake Bot is a tiny oven meets robot play pal. The robot sings when finished baking and has moving parts to make the process more fun. This bot is meant for children ages 6+.



BAKING ROBOT FOR KIDS

Development Sketches



FRONT VIEW



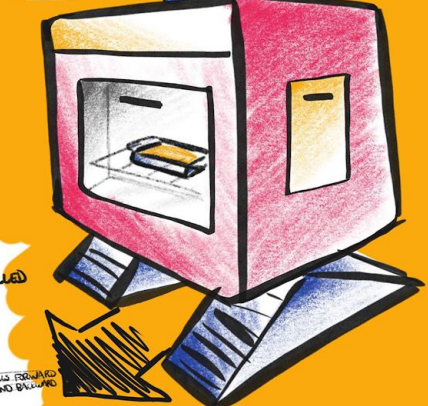
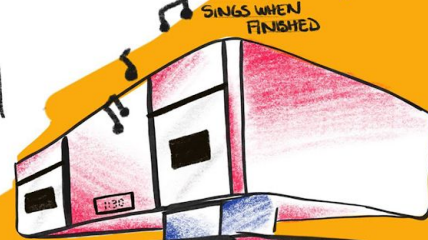
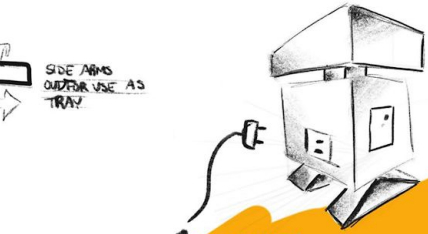
SIDE ARMS OUTSIDE USE AS TRAY



REMOTE CONTROLLED

BAKE.ME

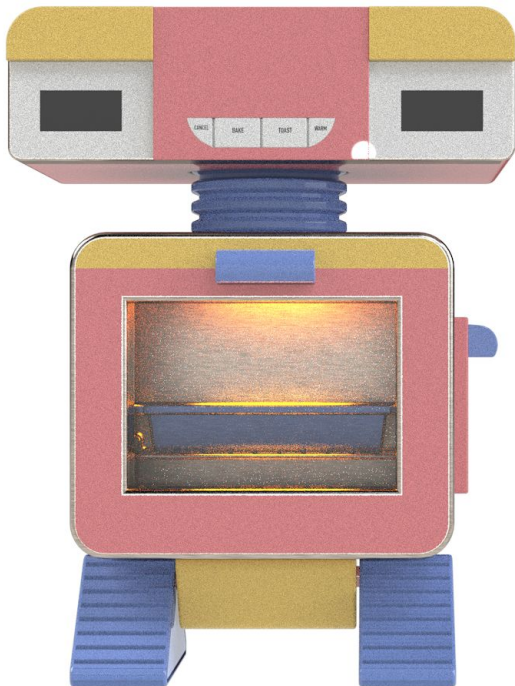
A sketch of the top section of the robot, showing a red panel with three buttons.



POWER FORWARD AND BACKWARD

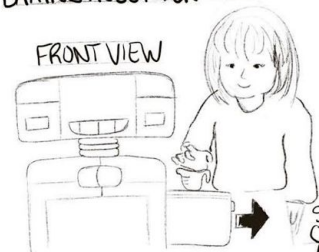
Drawing to 3D Render

This project began as a drawing assignment and later turned into the full 3D render you see here.



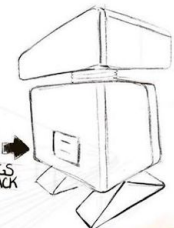
BAKING ROBOT FOR KIDS

FRONT VIEW

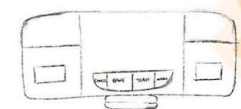


BB
BAKE BOT

SLIDE ARMS
OUT FOR USE
AS TRAY



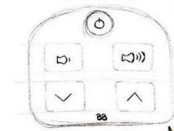
SINGS WHEN
FINISHED



POWER BUTTON



POWER



VOLUME

MOVEMENT

MOVES
FORWARD AND
BACK

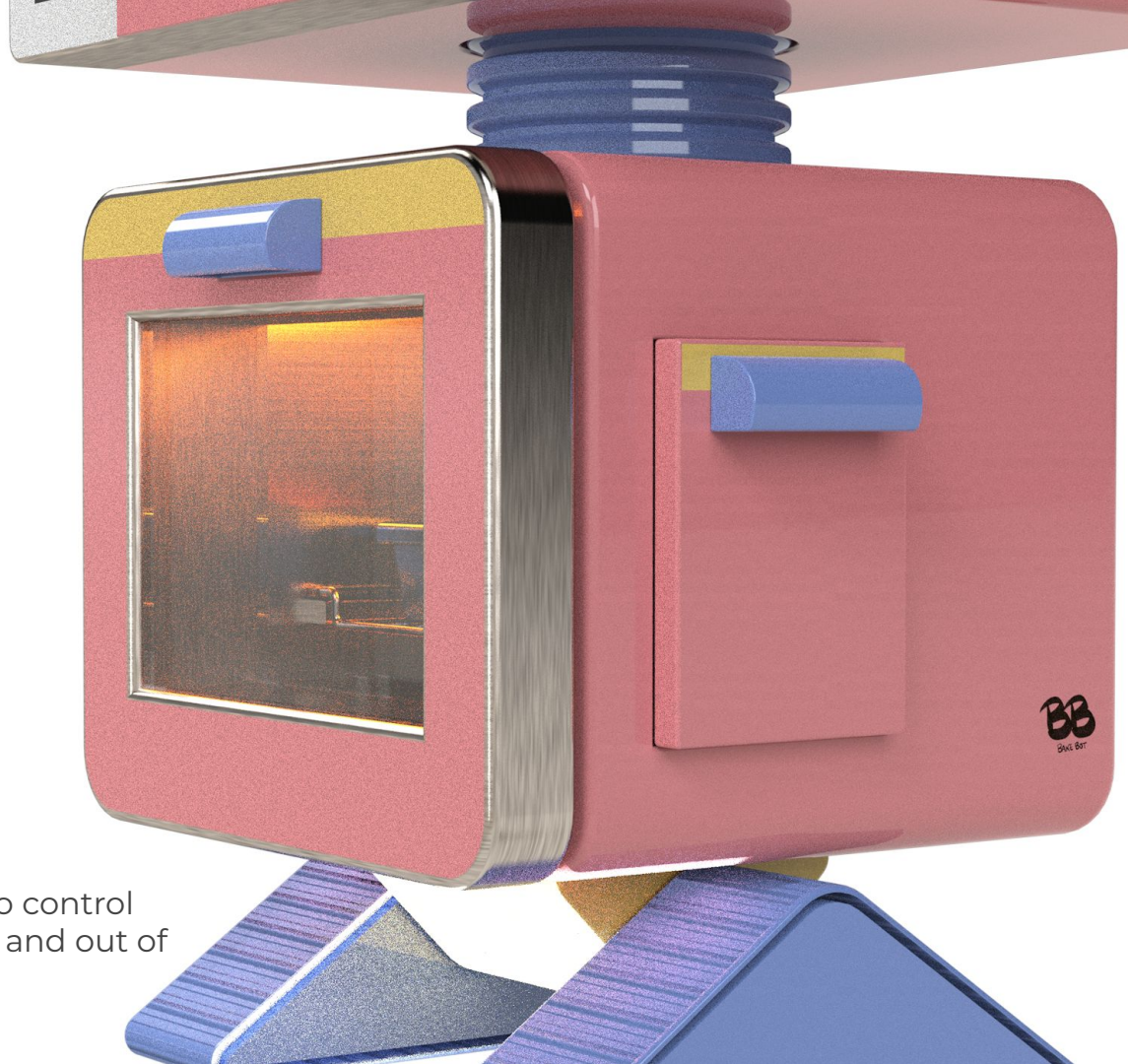
© 2021
Final Presentation
Casper



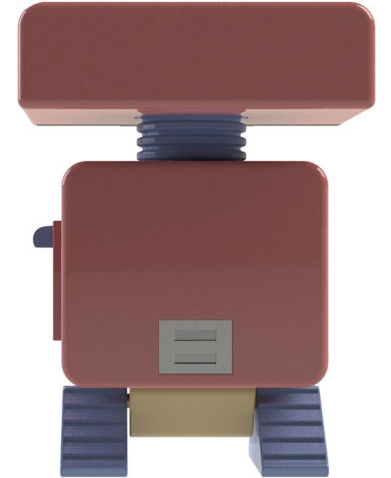
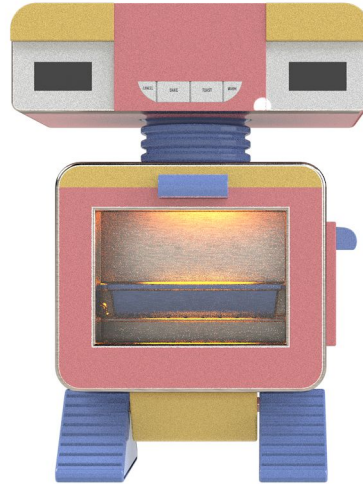
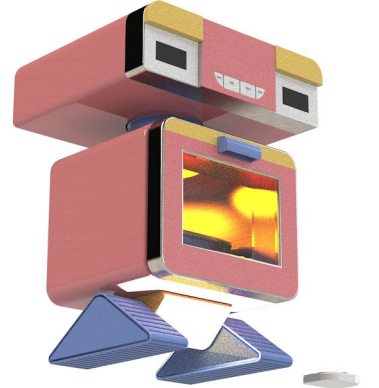


Details

The Bake Bot comes with a small controller to control volume and motion. Easily move the bot into and out of place for easy cleanup.

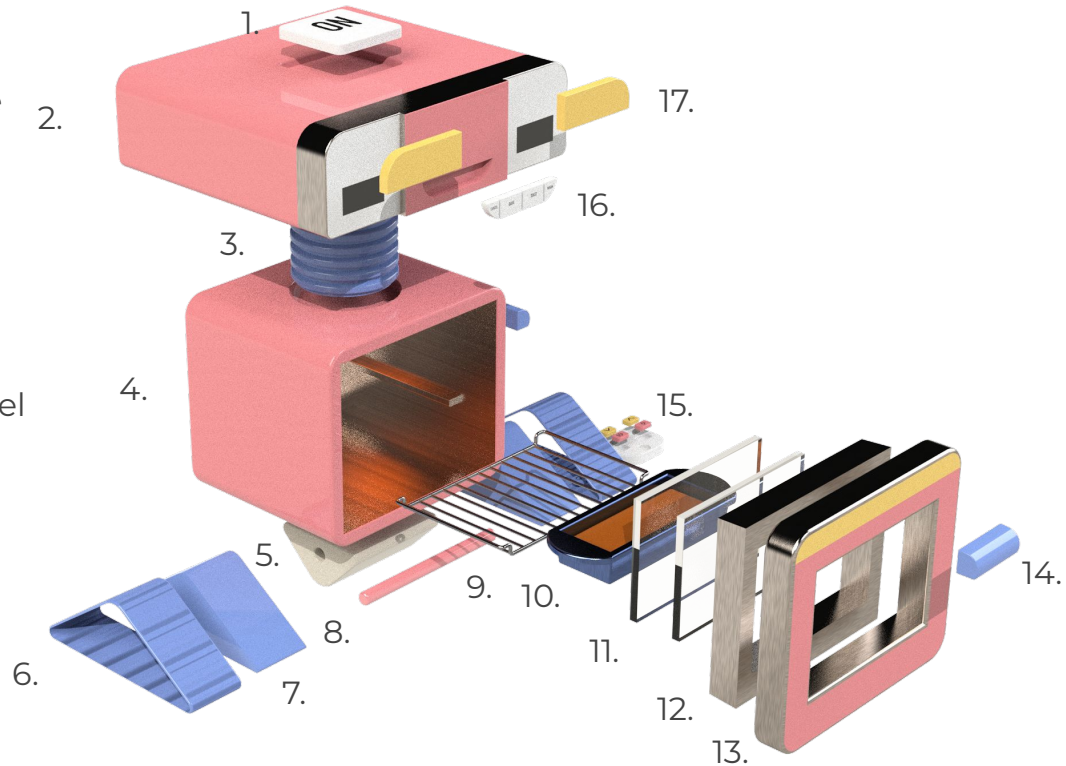


Orthographic Rendering



Exploded View

1. ON button, ABS
2. head shell, housing for mechanics, ABS, steel
3. neck tube, corrugated flexible pipe
4. oven, metal
5. wheel base, ABS
6. tire tread, rubber
7. wheel housing, ABS
8. axle, ABS
9. oven rack, stainless steel
10. oven pan, coated stainless steel
11. double layer glass, tempered glass
12. door base, stainless steel
13. oven door, stainless steel
14. handle, ABS
15. controller and buttons, ABS
16. mouth, soft touch plastic
17. plastic eye covers, ABS



Color Material Finish





Set to bake
with just
one touch.



Pride Bag Charm



Pride Bag Charm

This delightful and playful bag charm is a symbol of pride for women-loving women. It is made using colorful enamel and metal hardware. It can be used as a decorative item for a bag or may be clipped to keys.



Details

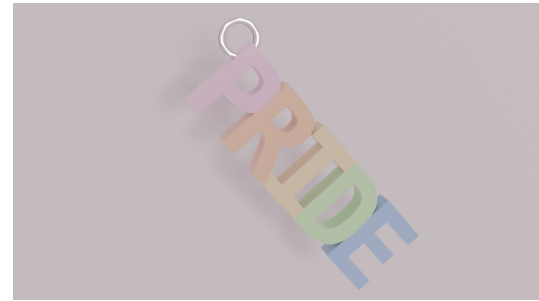
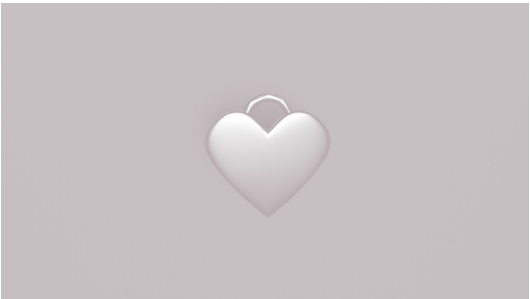
Resin heart charm

Metal heart charm

Enamel Pride charm

Metal women charm

Enamel rainbow charm





Fun Design with Pastel Colors

A fun play on the traditional, saturated color of the Pride flag, this design features pastel colors for a more mature feeling based on current design trends.





Cocoa Credenza



Modular Home Storage Solution

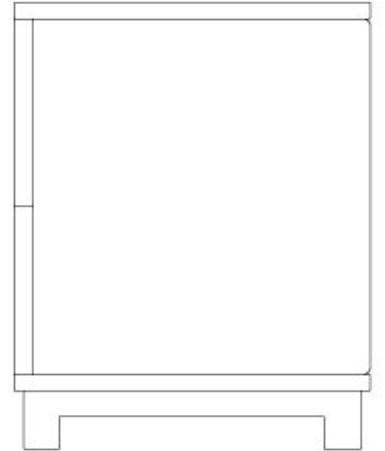
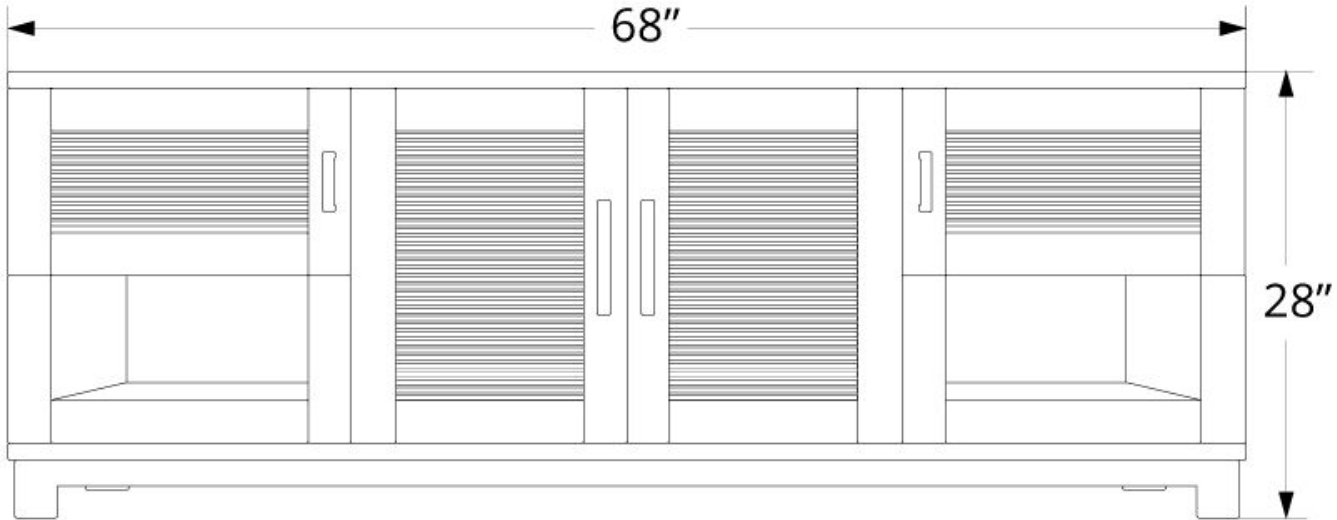
Ideal for showing personal decorative items like figurines or photos in the shelves or on the side, and excellent for storing items out of sight, this storage unit is the right addition for any living room. Meets your storage needs while even doubling as an entertainment center.



Details

Solid maple and engineered wood with a dark cocoa finish. Accented with brass pulls on the slatted wooden cabinet doors.

Dimensions

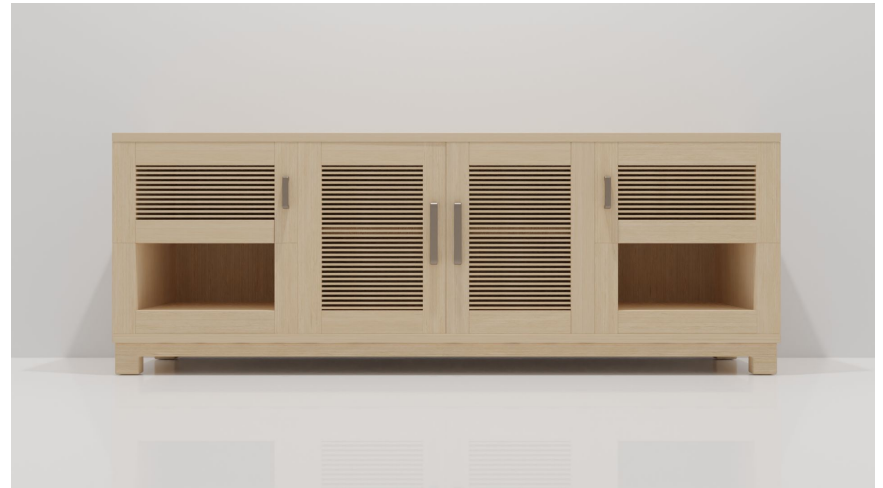
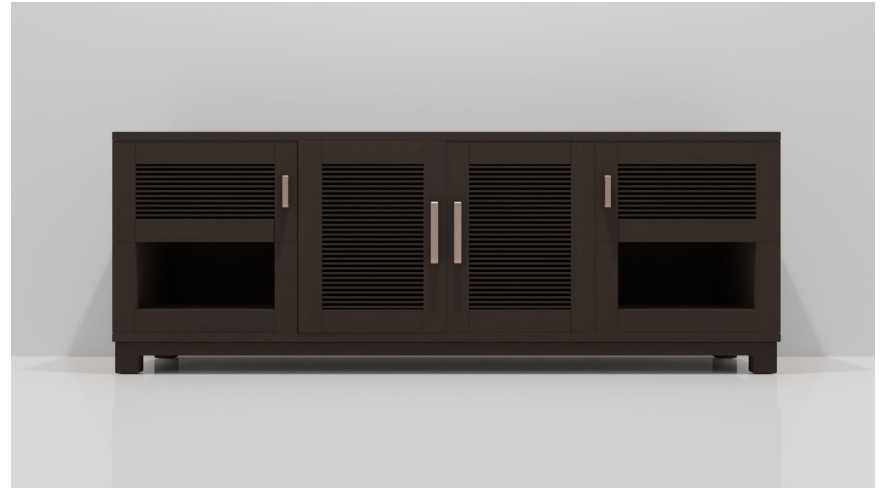


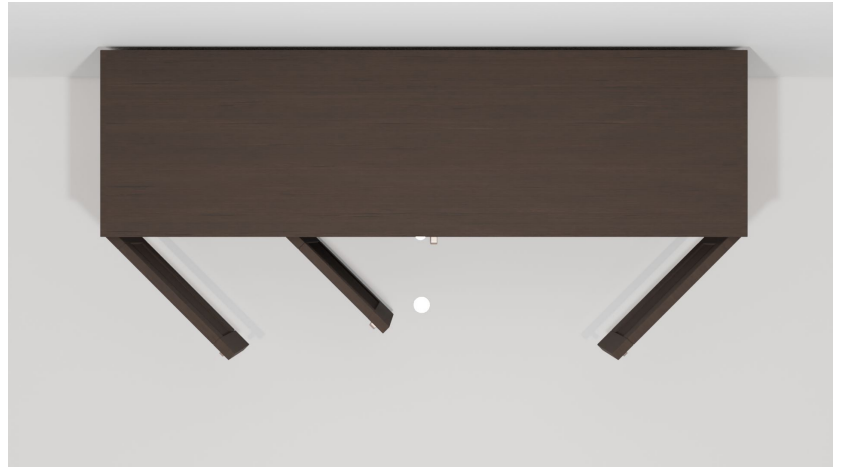
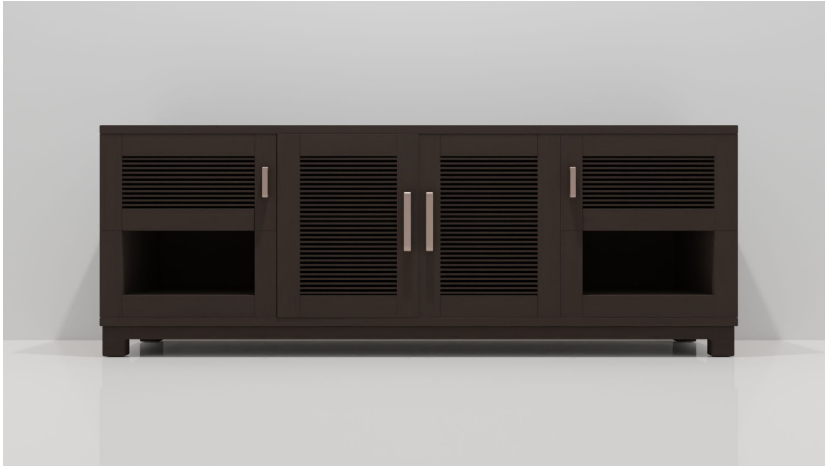
Mood Board



Color Options

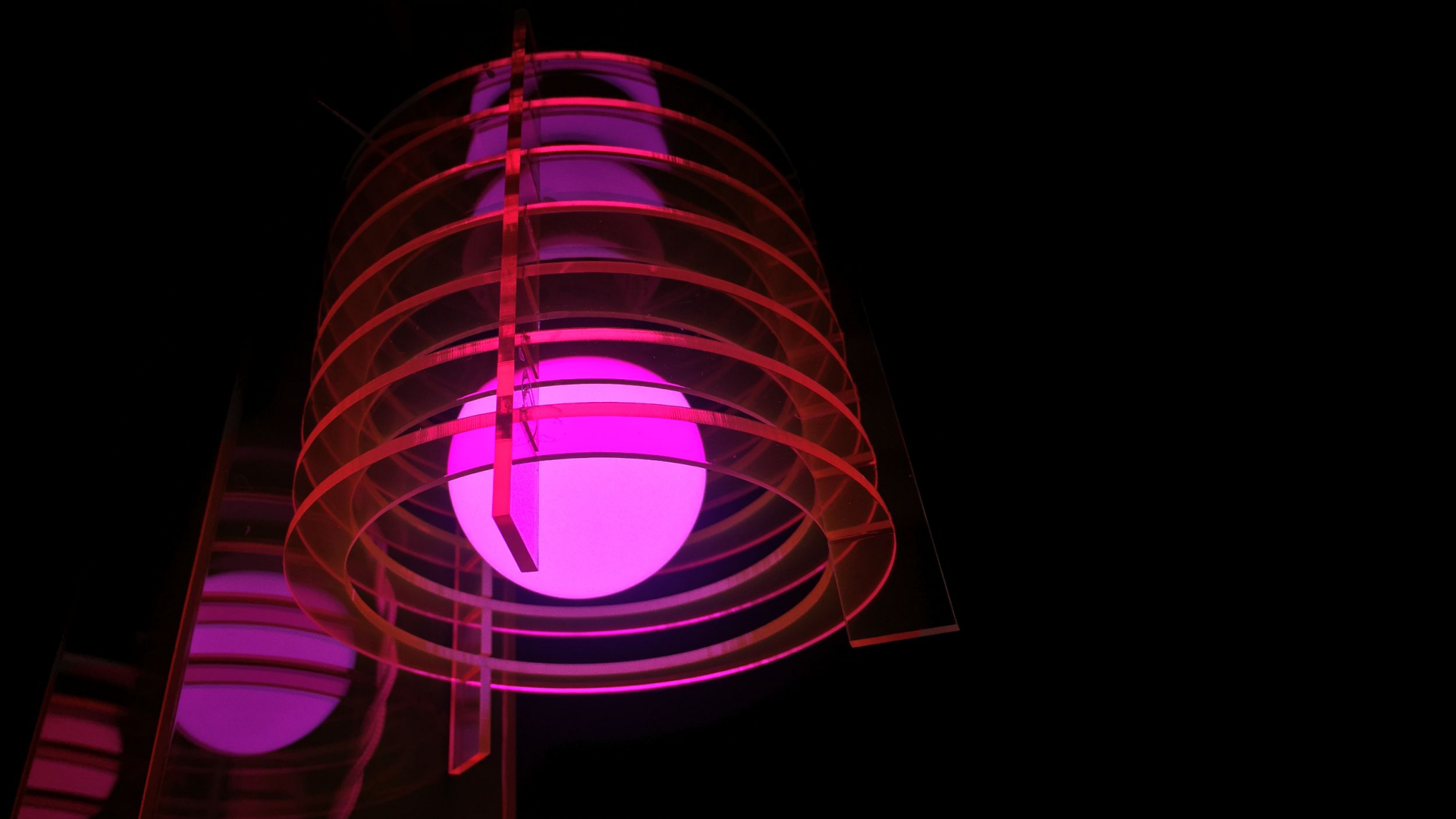
The Cocoa Credenza comes in a dark cocoa as well as a white chocolate finish.



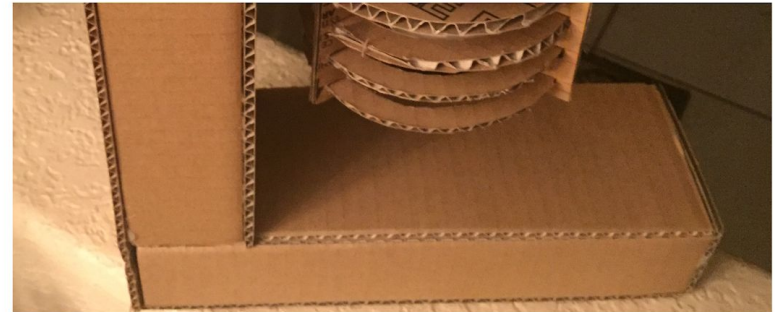
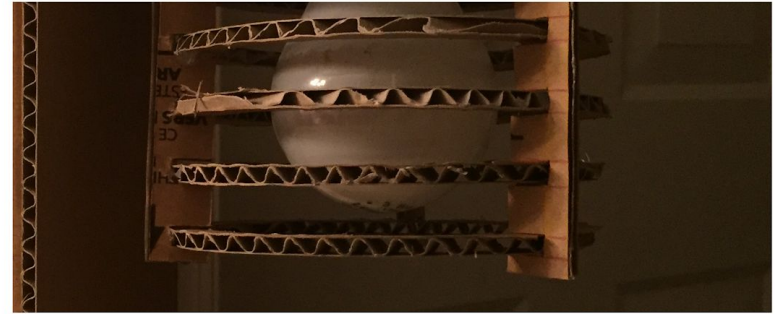






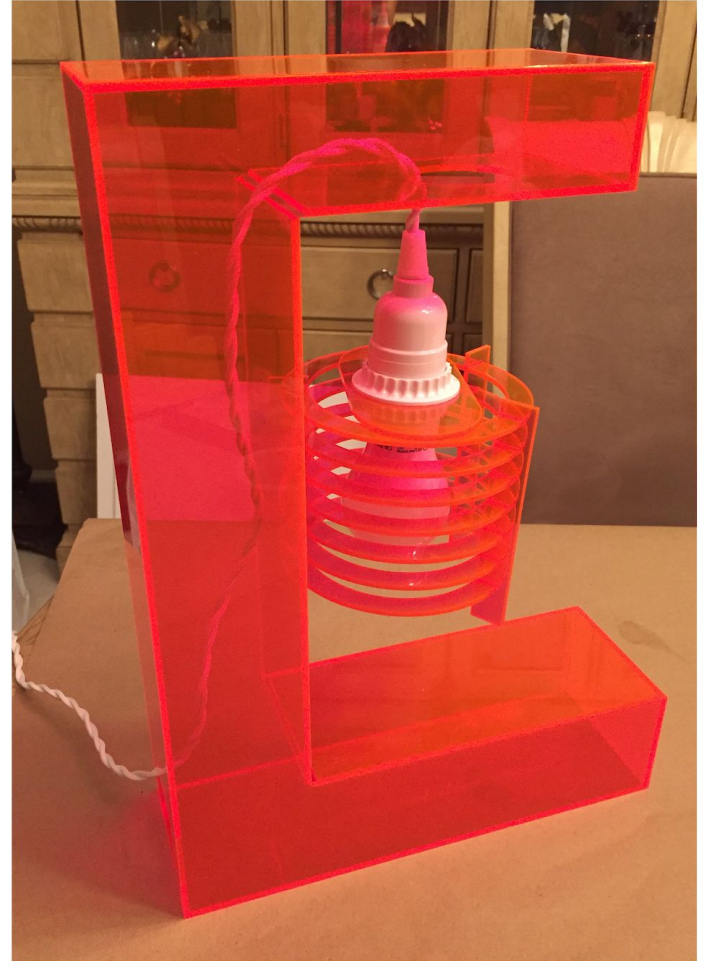
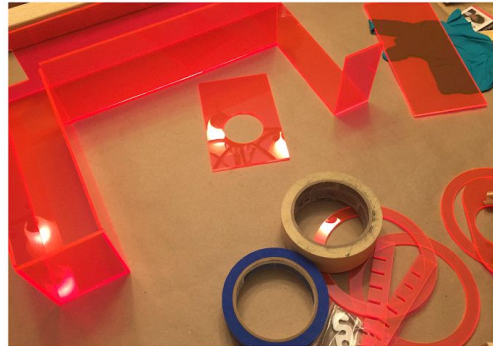
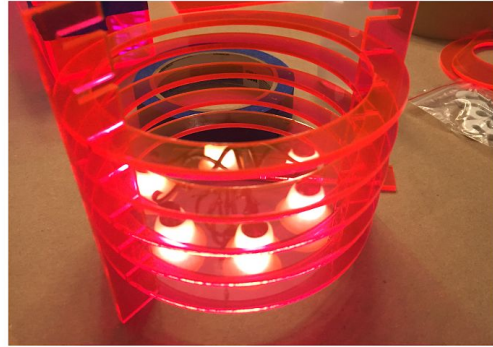
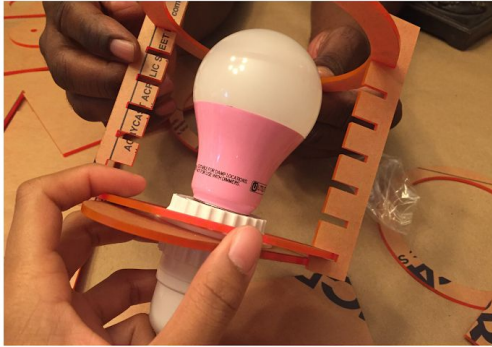


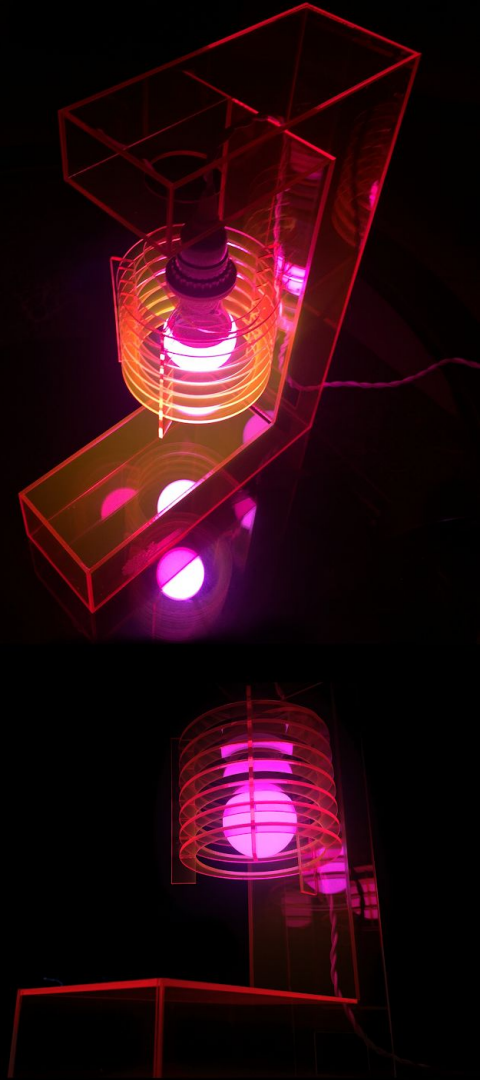
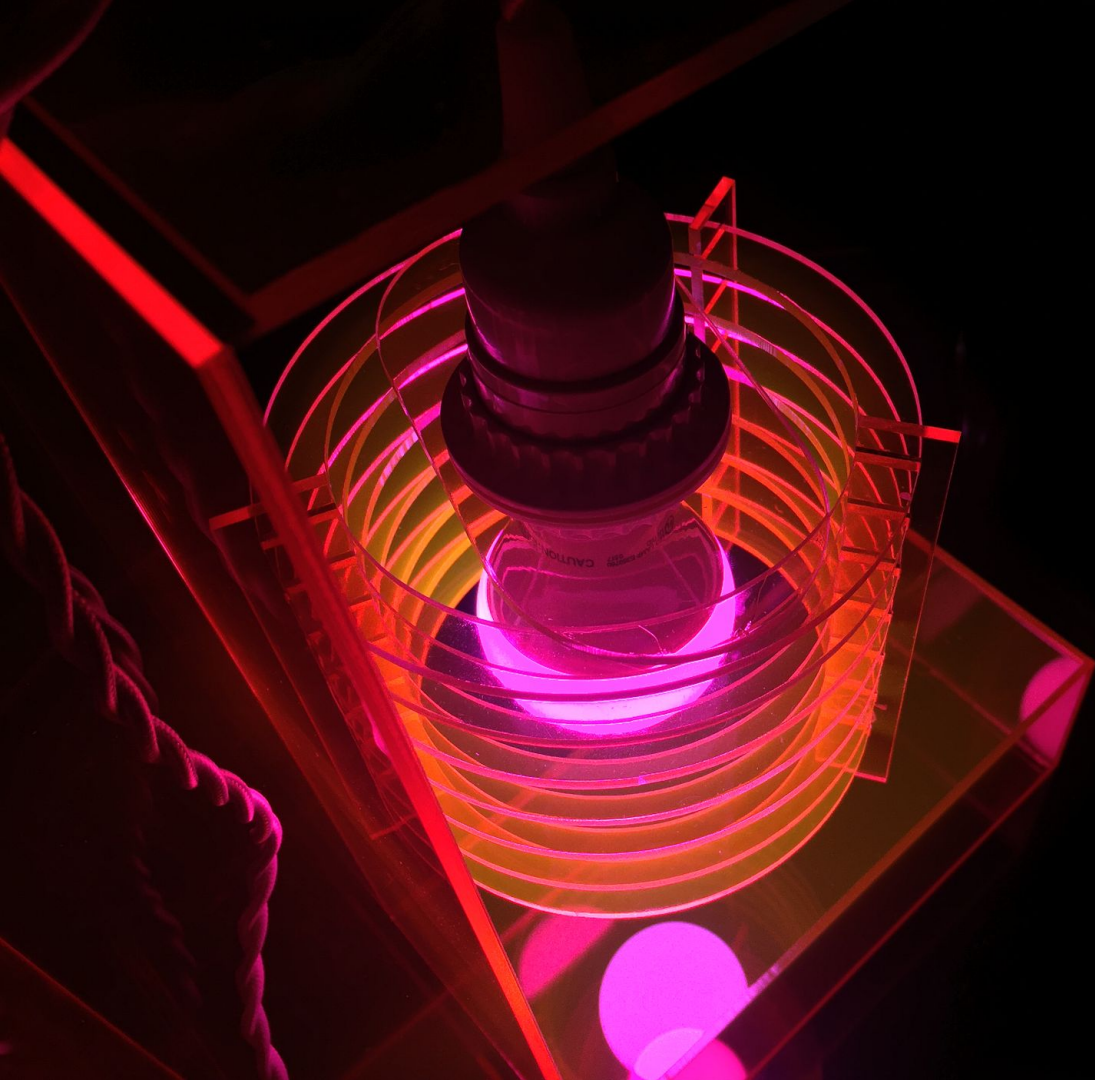
Sketch Model



Assembly

This lamp is made from laser cut neon acrylic plastic sheets. It is assembled using a cementing solvent.





Austin Cary Toys



Austin Cary Forest

AC Toys is a brand concept made for the Austin Cary Forest. These toys are tailored to match the idea of the “working forest.” Each toy has two voice boxes inside: one to play the forest sound, the other to introduce the character. These toys are meant for children of all ages.

Hand sewn, voiced by me.

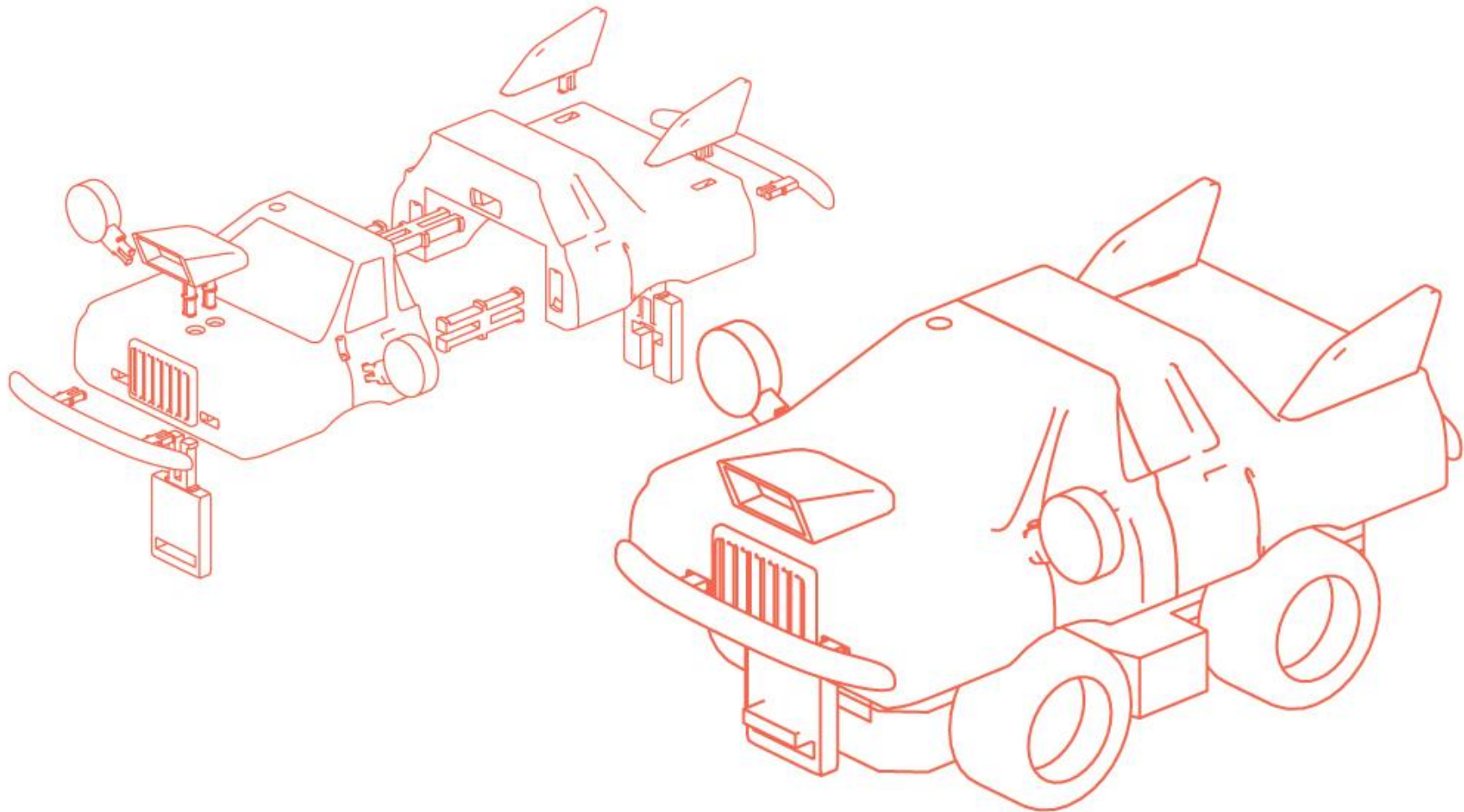




Toybox RC Racer









RC Racer Play Packs

The RC Racer was developed as part of the Play Packs subscription at [Toybox Labs](#). I served as the project lead for the RC Racer Play Pack and designed the 3D parts and worked with overseas sourcing team to build parts to work with our sourced components. I also designed the sticker sheets, planned the themes, and created unique additional printable items to play with such as cones and barricades. I worked with our team's software engineer to develop a fun concept for the toy's "Builder App." Kids can customize their own RC Racer using not only different PLA colors and stickers, but also by choosing between unique combinations of different mirrors, fins, hood ornaments, and front and back bumpers all designed by me.





Thank you for your time

Email address | elaxisjking@gmail.com

Portfolio website | elaxisjking.com/home

For questions, more information or videos of the Play Packs app features, please feel free to contact me.