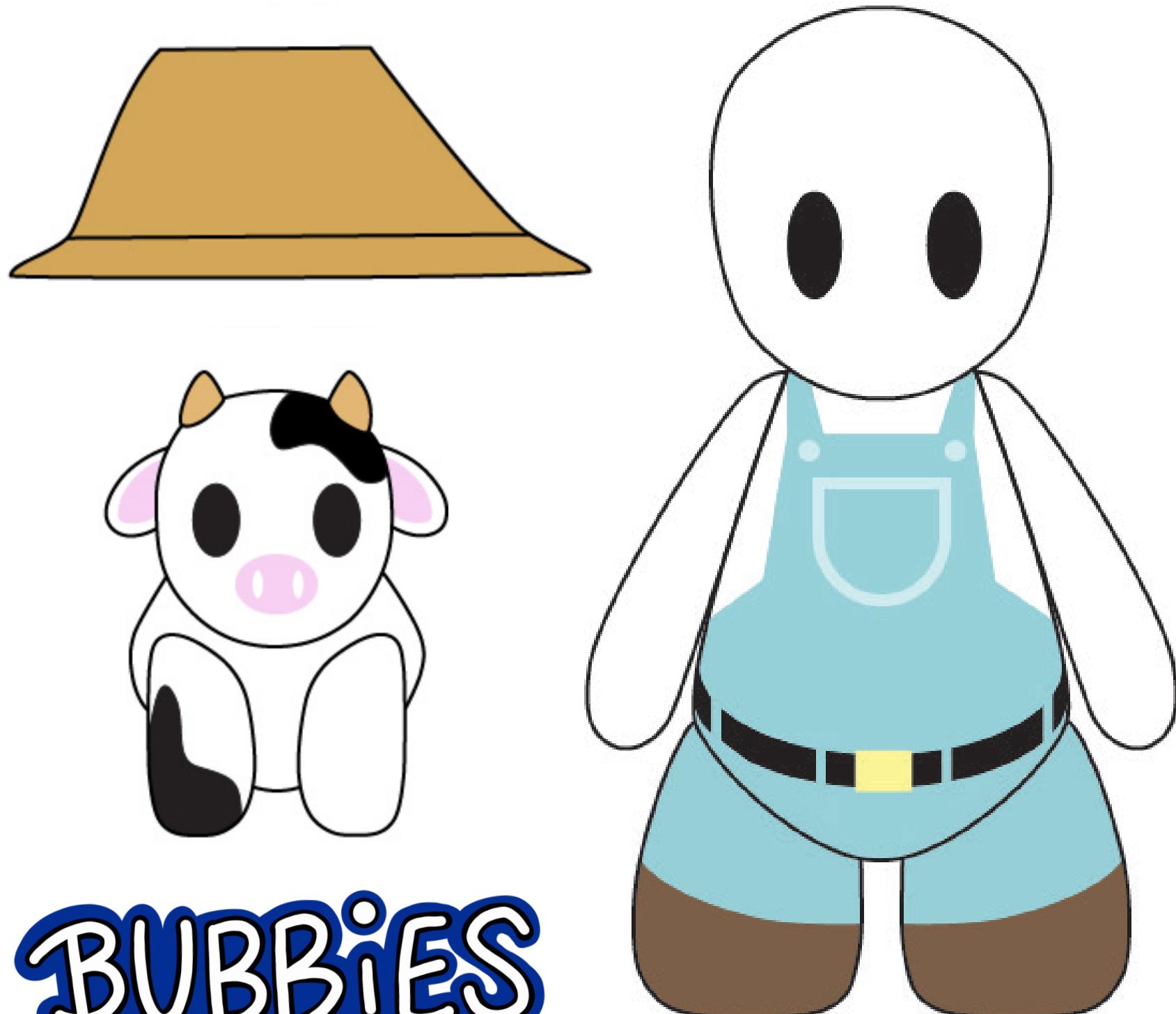


BAR BENDET

PRODUCT DESIGN

PORFOLIO 2024



BUBBIES

BUBBIES

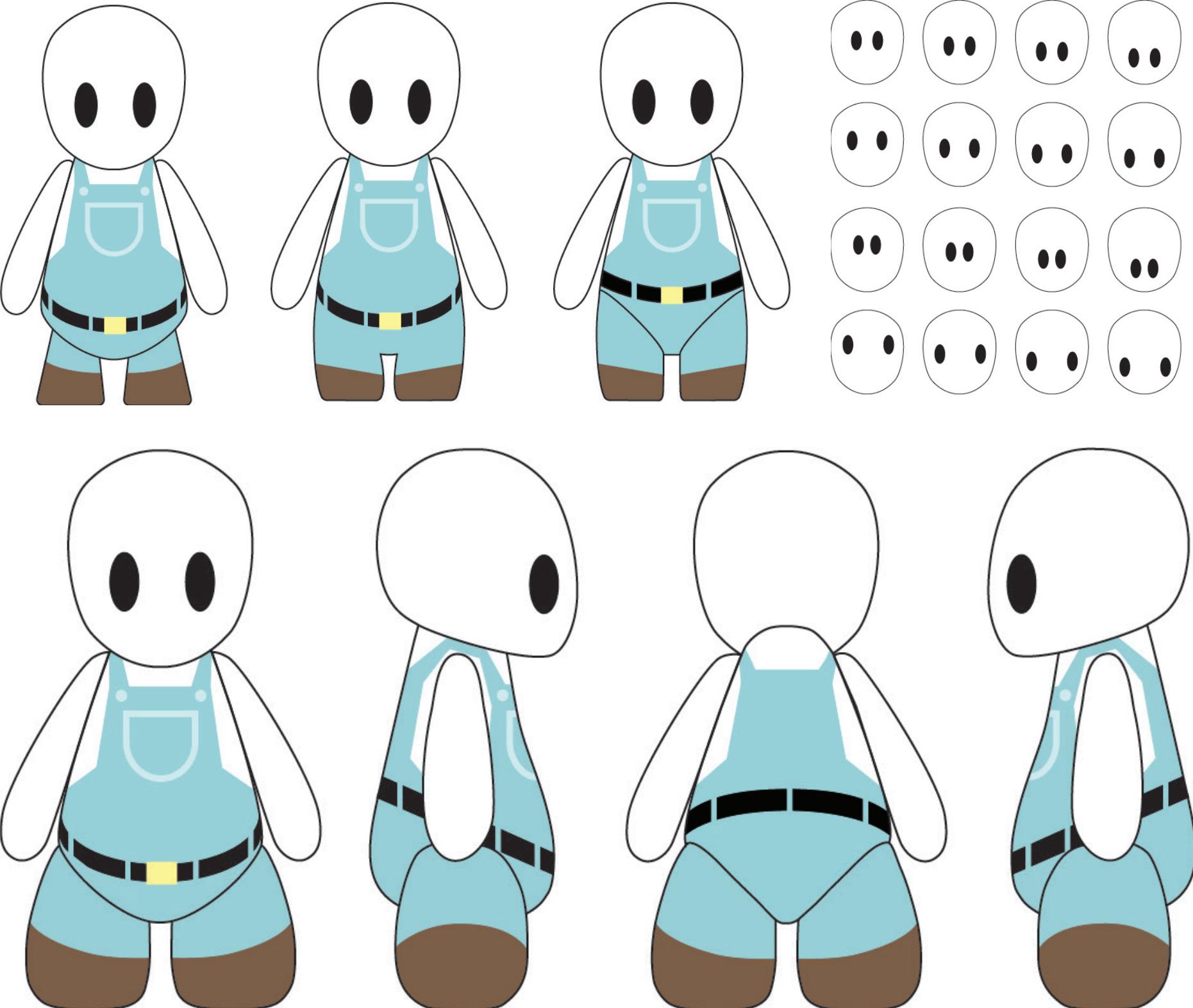
JULY 2024

PROJECT:

Design a toy by going through a full real-life design process: from market opportunities to factory quotes on production.

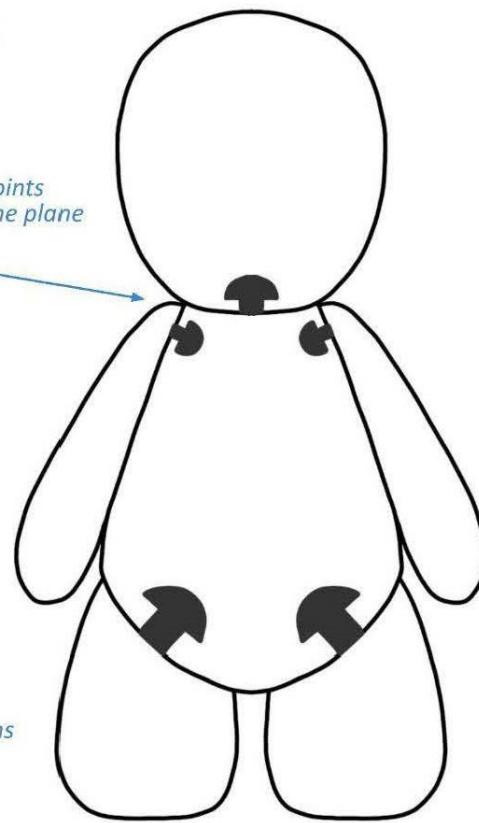
DESIGNING A FIGURE:

After many iterations, the Bubbie figure was finalized with a round shape and white body. The eye placement was tested based on pupil size and position on the face, it was crucial to get the right facial expression to create a look that customers would enjoy. The arms, legs, and head were designed to work with articulation, allowing another form of play, alongside collecting. This first Bubbie was designed to be a farmer, with the idea that other Bubbles would expand on the line.





MUSHROOM
JOINT ICON

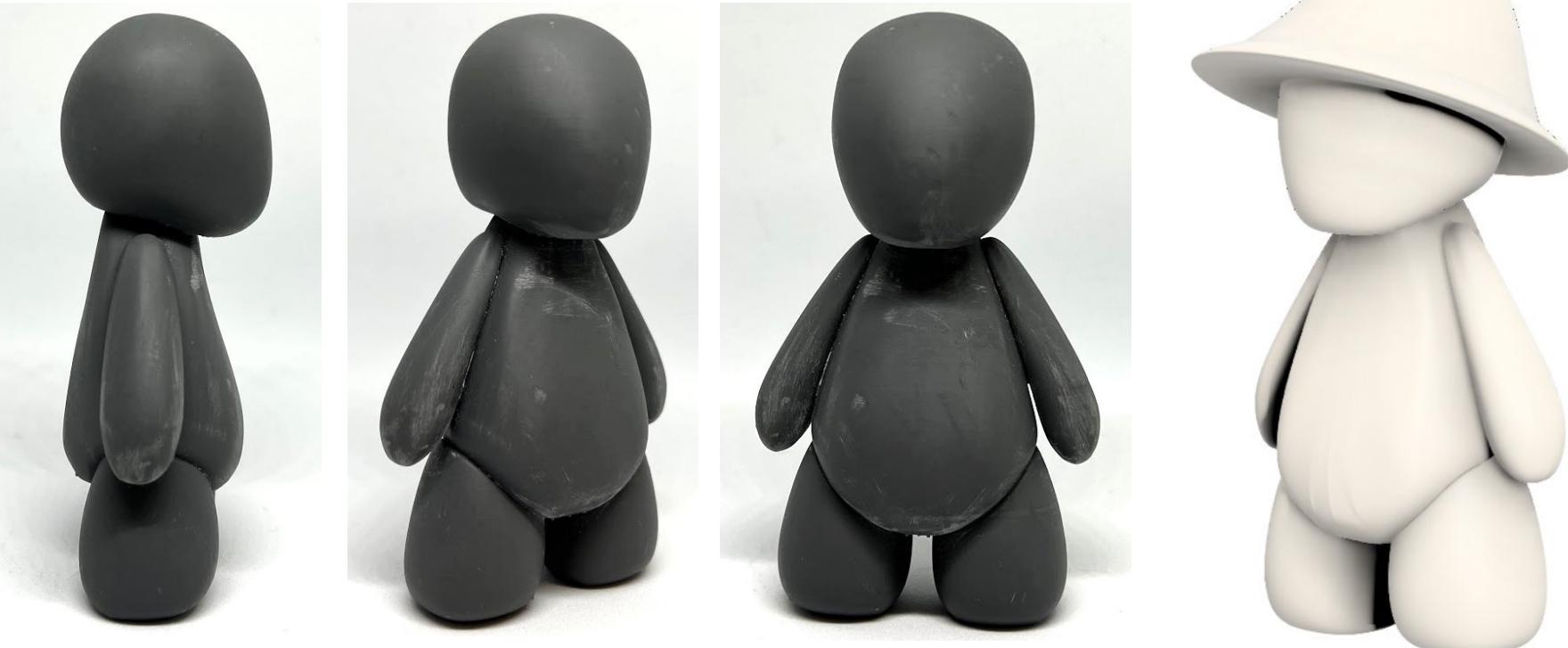
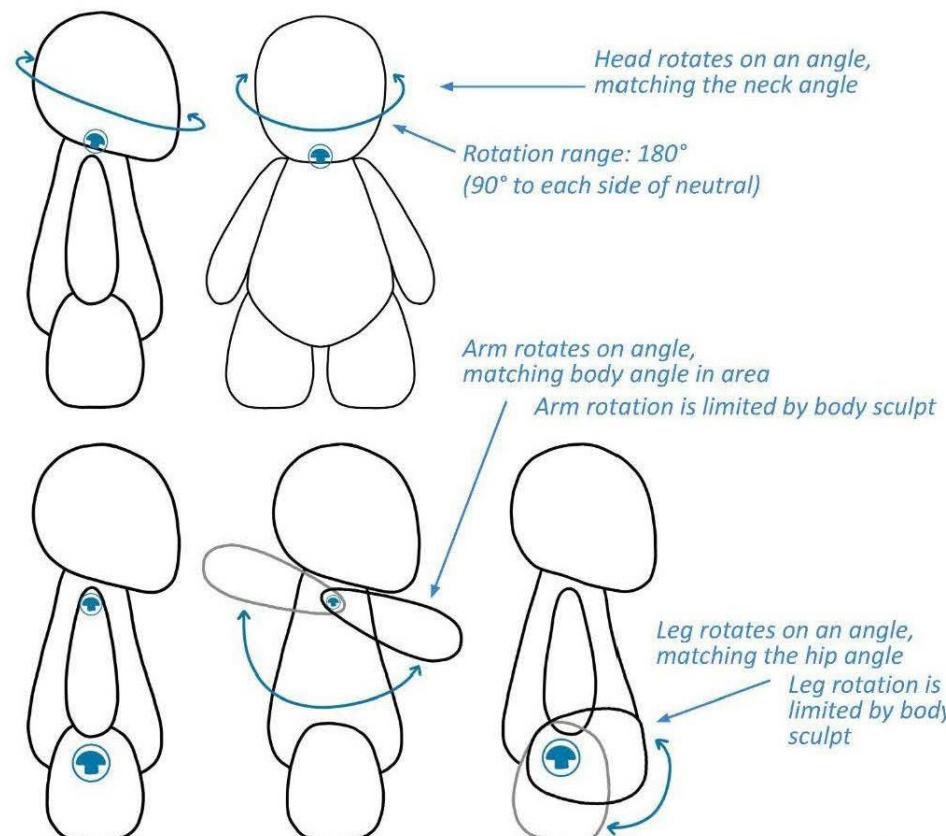


Attachment Key:

Head - attached to body

Shoulders - attached to arms

Hips - attached to legs



MECHANICS:

There are 5 joints that allow the figures to be articulated, two arms, two legs, and at the neck. These movements allow the figure to be playable and adjusted to different play patterns.

The relationship between the joints and the body is reflected in the 3D print.

PACKAGING:

Exploring the world of packaging design was a challenge on its own. Understanding how to place the important information on the faces, as well as what type of materials to use. The packaging includes one Bubbie, a companion cow, and a hat accessory to add to the play pattern of the whole product.

Using the packaging information to create a case pack dimension, and test out the way the product would be shipped to retailers.

Sustainable Packaging PDS

PCKG Style
<ul style="list-style-type: none"> ● Blister card with heat seal and Insert Card
Add-Ons
<ul style="list-style-type: none"> ● Seal Tape ● Inner Blister ● Outer Blister ● Cardboard Cutout
Sustainable Material Specs
<ul style="list-style-type: none"> ● Cardboard: 250g (CIS)- Blister Card / HT ● Blister: 30% rPET / 70% PET ● Soy-bean Ink
Sustainable Packaging Finish
<ul style="list-style-type: none"> ● UV ● Laminated Matte
Sustainable Packaging Specs
7" L x 2.25" W x 7" H
Case Pack Quantity:
SIX (6)
Master Carton Dimensions:
14.5" L x 7" W x 14.5" H
Date: 7/18/24
Item #: BBIP01

NO PVC ALLOWED FOR THIS PACKAGING

ALL PLASTIC PACKAGING COMPONENTS MUST BE 30% rPET / 70% PET

BBIP01 BUBBIES (1) PACK

Blister Card with Insert
Pckg Size: 7" L x 2.25" W x 7" H

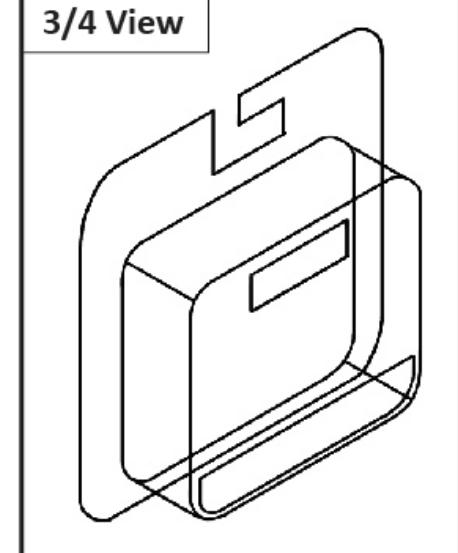


FRONT



BACK

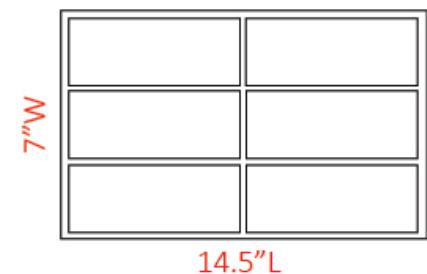
3/4 View

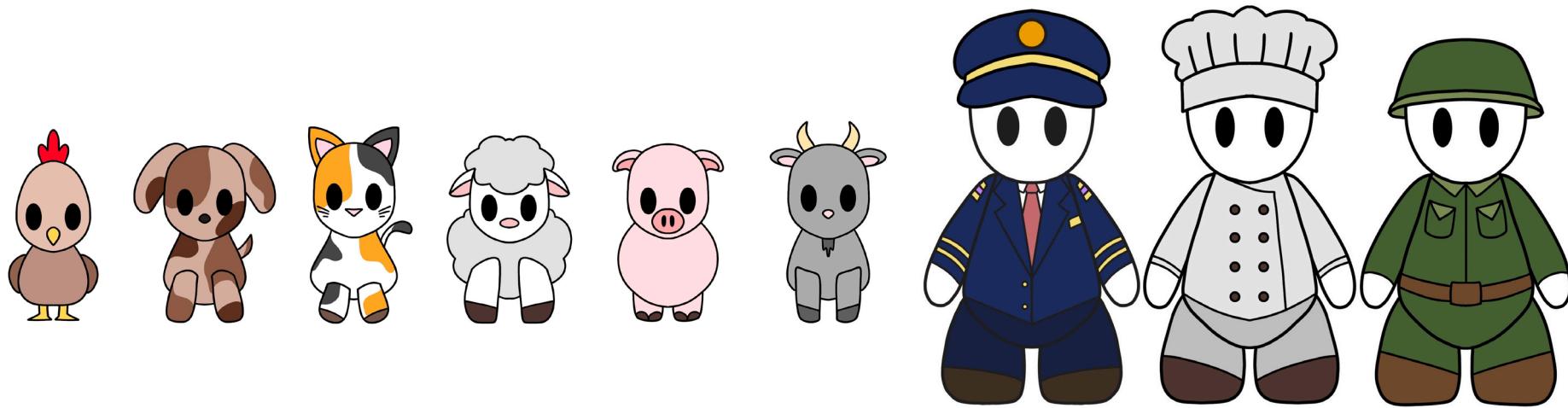
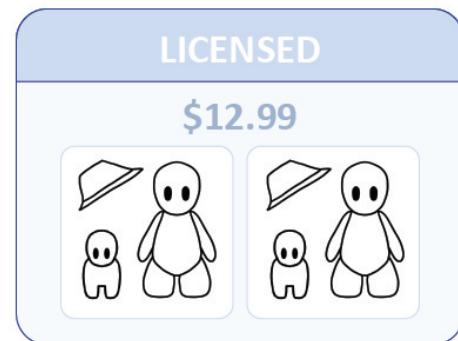


TOP VIEW LAYOUT

Case Pack: SIX (6)

Master Carton Dims:
14.5" L x 7" W x 14.5" H





FUTURE OF PRODUCT:

There are ways to expand the Bubbies line, which includes different types of sets. Two packs, playsets, and mini figures.

Another way to expand is the type of characters sold, which could be seasonal items, more occupations, and expanding the list of animal companions available.

Adding licensed products to the line allows the Bubbies to take on a different type of customer.



TOY TRAIN

MAR 2023

PROJECT:

Design and print a toy that has multiple parts in an assembly in Solidworks. Final presentation of the product needs to include production drawings for all the individual parts, as well as an exploded view with bill of materials.

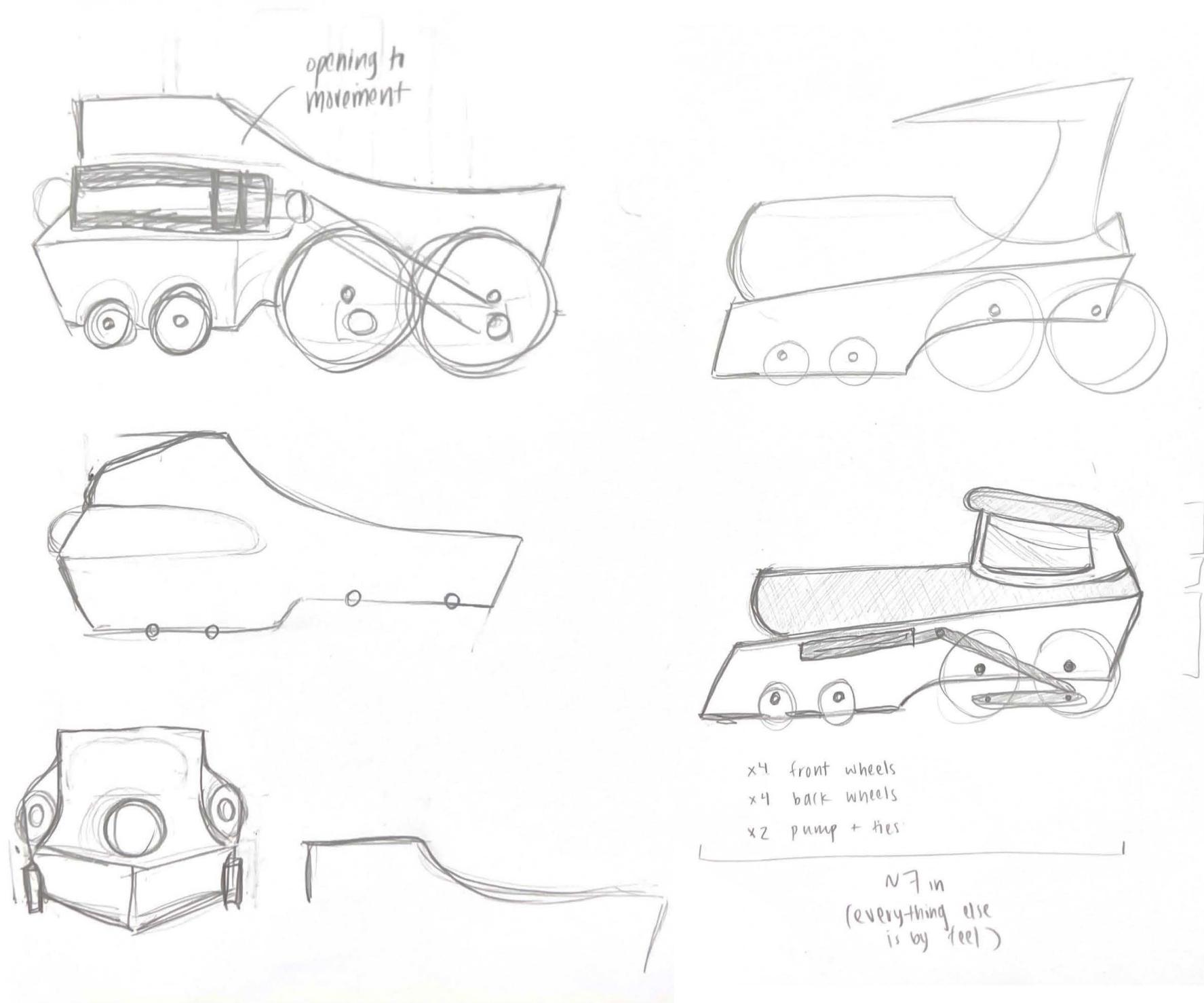
MY APPROACH:

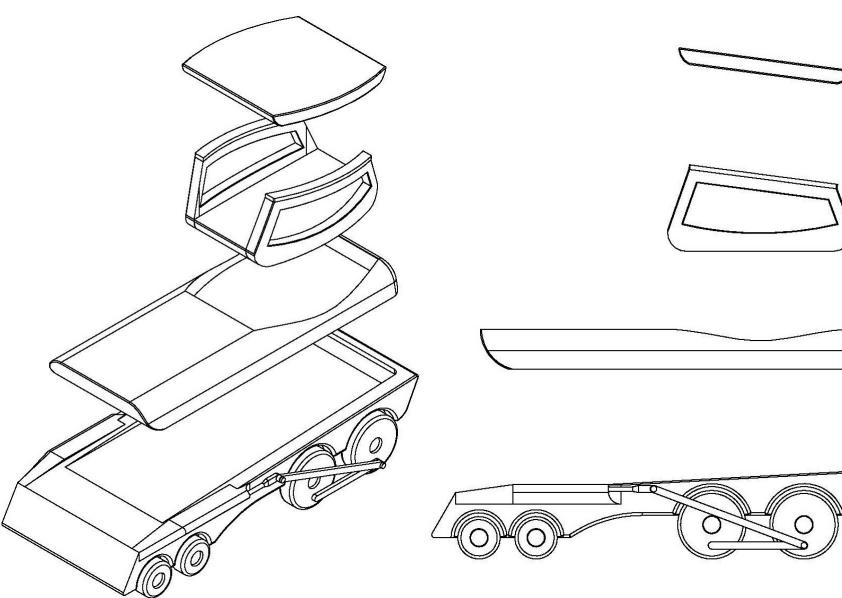
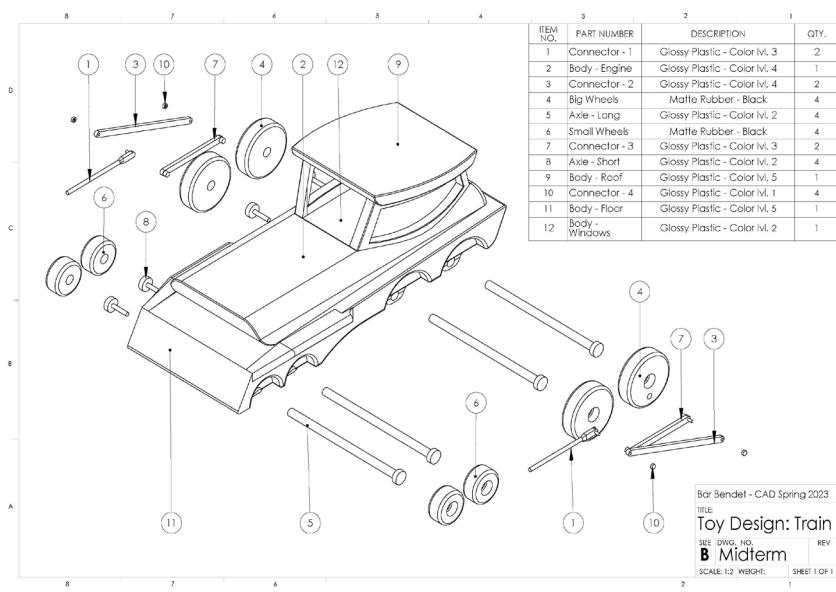
I grew up playing with toy trains, building things, and taking them apart, so I drew inspiration from all of these elements to create a train that could be taken apart and reassembled.

I wanted to challenge myself further by adding a motion element to the design, with the wheels being fully functional.

I took inspiration from the design language of wooden train toys made for toddlers, as well as streamlining designs, to create a train design that looks sleek and fun to play with.

The parts can be assembled in different orientations to create unique configurations of the train.





PRINTING:

Every measurement and tolerance in the CAD model was calculated to allow the design to work solely with friction fits.

The wheels had a separate tolerance calculation to allow them to be glued to the axle.





CLIENT RING

SEPT 2023

PROJECT:

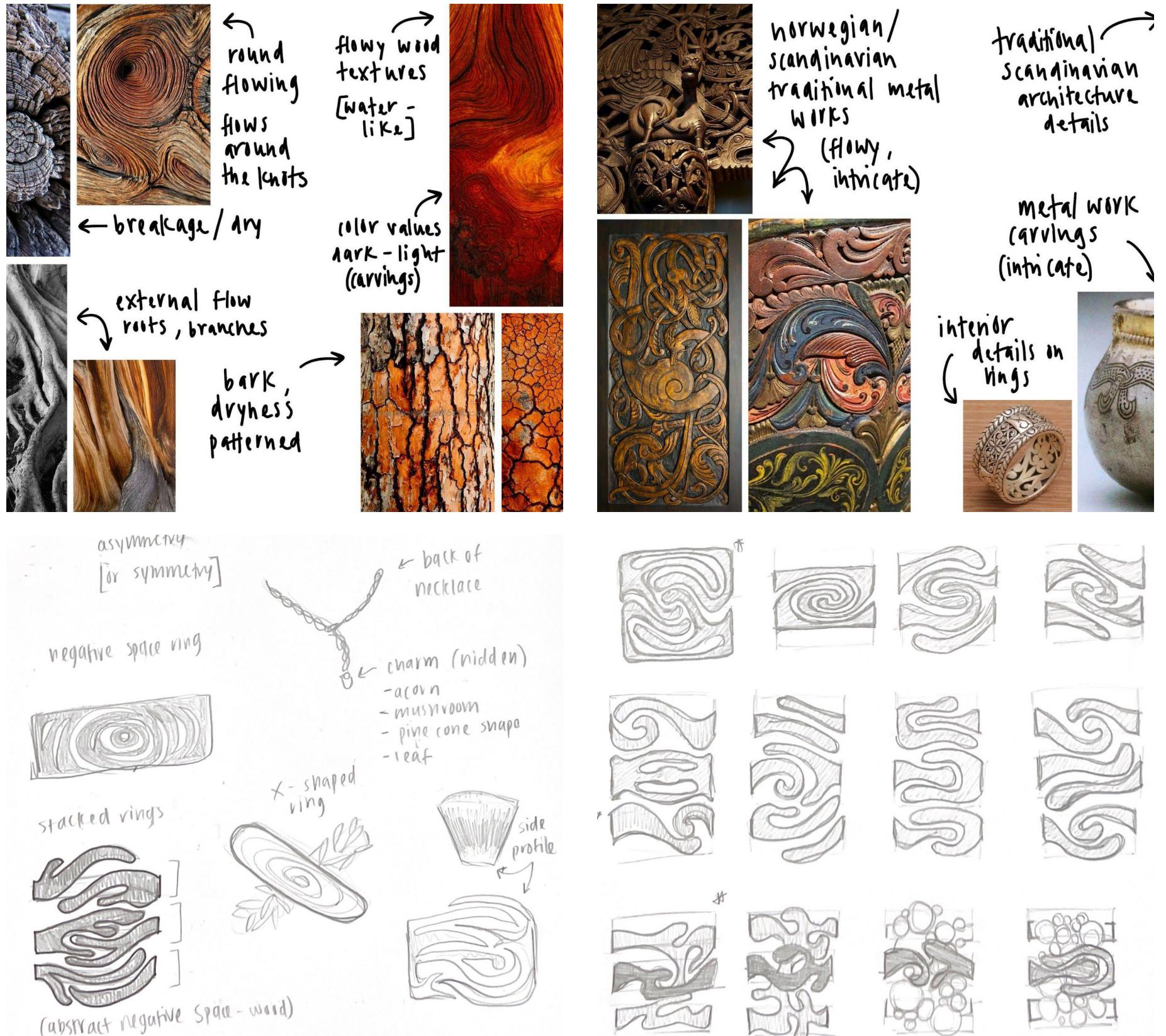
Design a custom wearable for a fellow classmate. The design needs to be inspired by the person's interests and preferences.

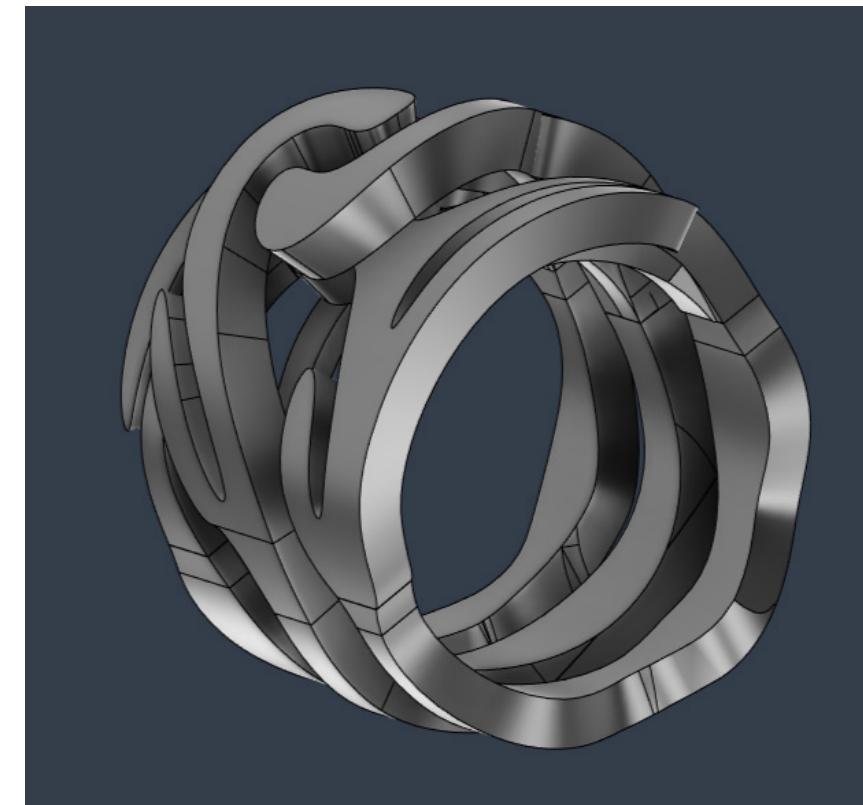
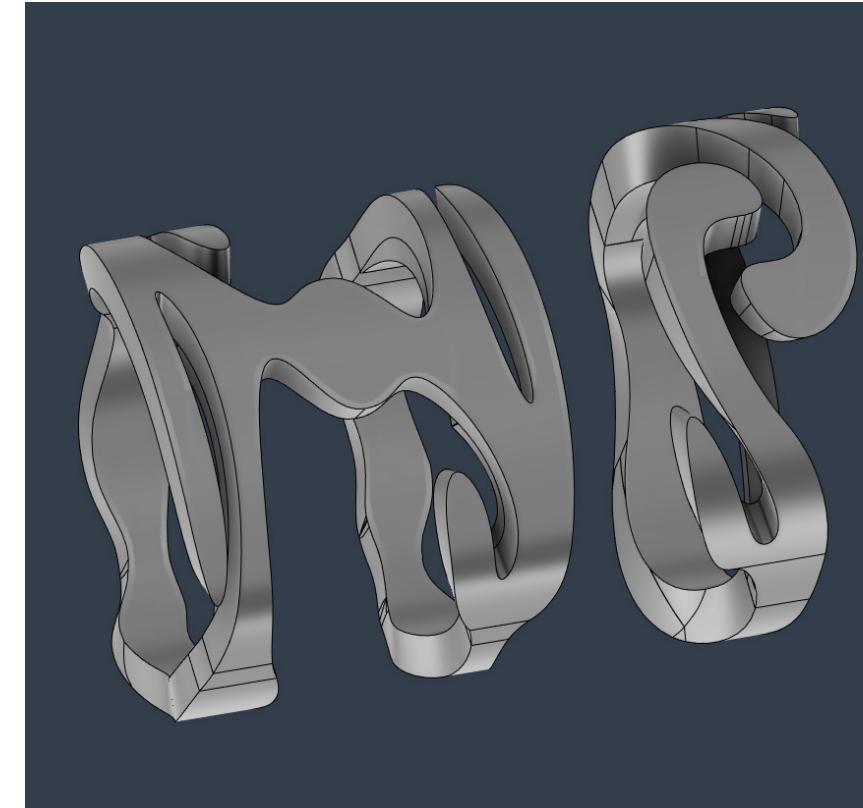
The final deliverable needs to utilize the benefits of 3D printing, presented in a one-of-a-kind packaging that reflects the client.

MY APPROACH:

Since the project is a customized item for a client, I conducted a set of interviews to best know my client's desires and preferences. From those interviews, I iterated designs for various types of jewelry and aesthetics. A couple of abstract sketches were chosen by the client to continue with, which I translated best into a ring.

The final deliverable needed to be a 3D printed item, so I wanted to explore the benefits through a more complex CAD model. The model is two rings that interloop, creating a faux stacking effect, as the client emphasized their love for the aesthetic of stacked rings.





CAD MODELS:

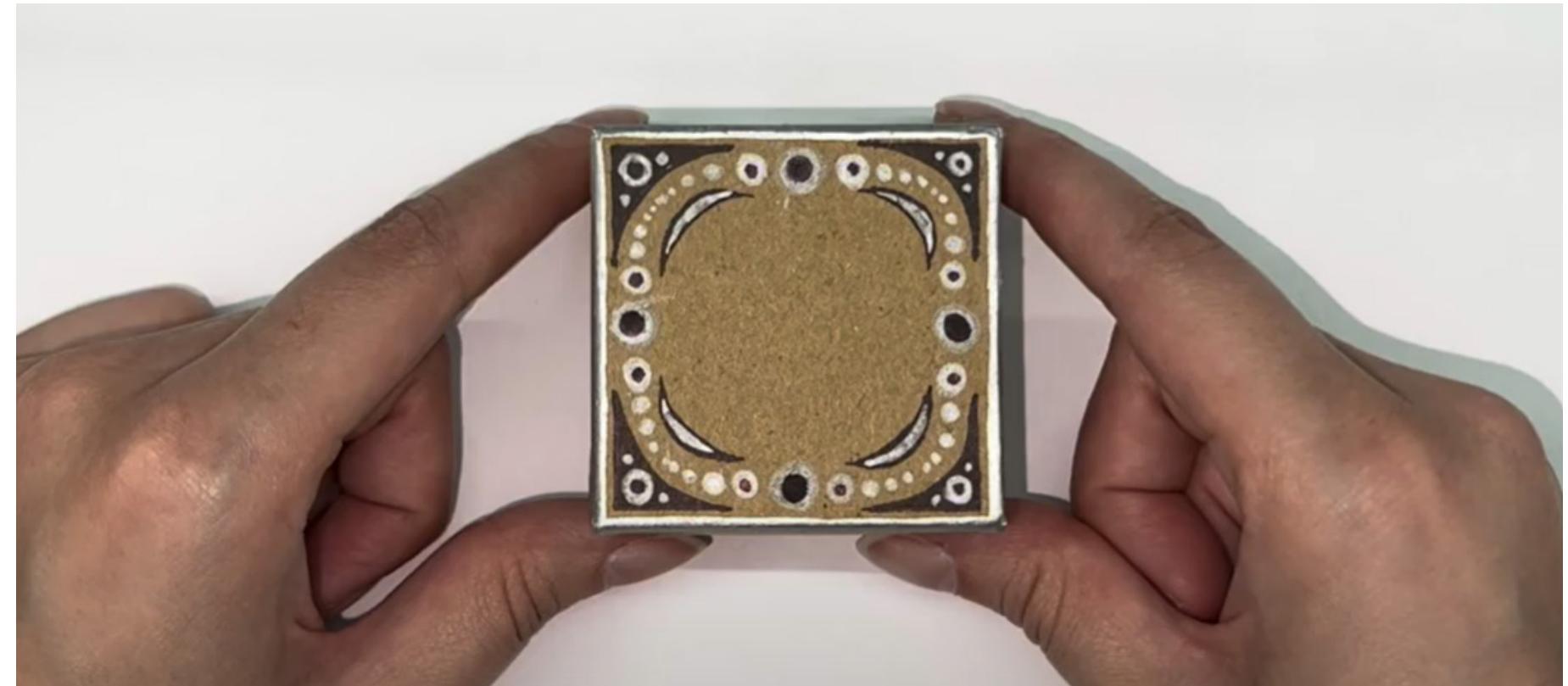
After experimenting with different methods to model this (see top left image), I managed to create this complex two-parted model.

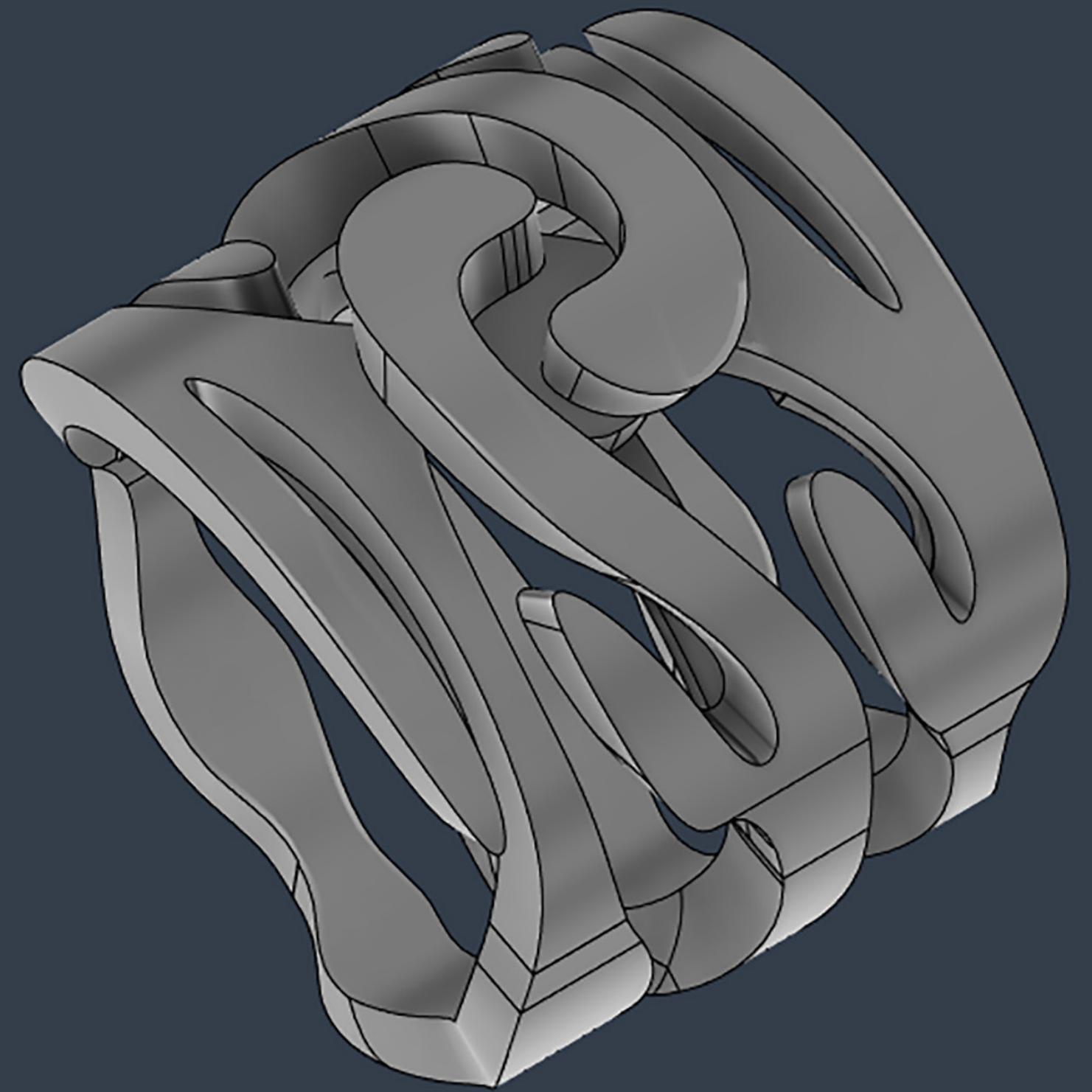
The top face has a flowy look of wood knots together with Norwegian nature metalwork. The bottom of the ring (three bands), mimics the crackling of tree bark. The middle band is detatched from the others to provide stacking effect.

PACKAGING:

The ring box interior was designed to mimic Norwegian metalwork details.

I also incorporated my initials in the design to add my touch. The box exterior details also reflect the other jewelry the client normally wears.







DUOGRIP KIDS TOOTHBRUSH

DEC 2023

PROJECT:

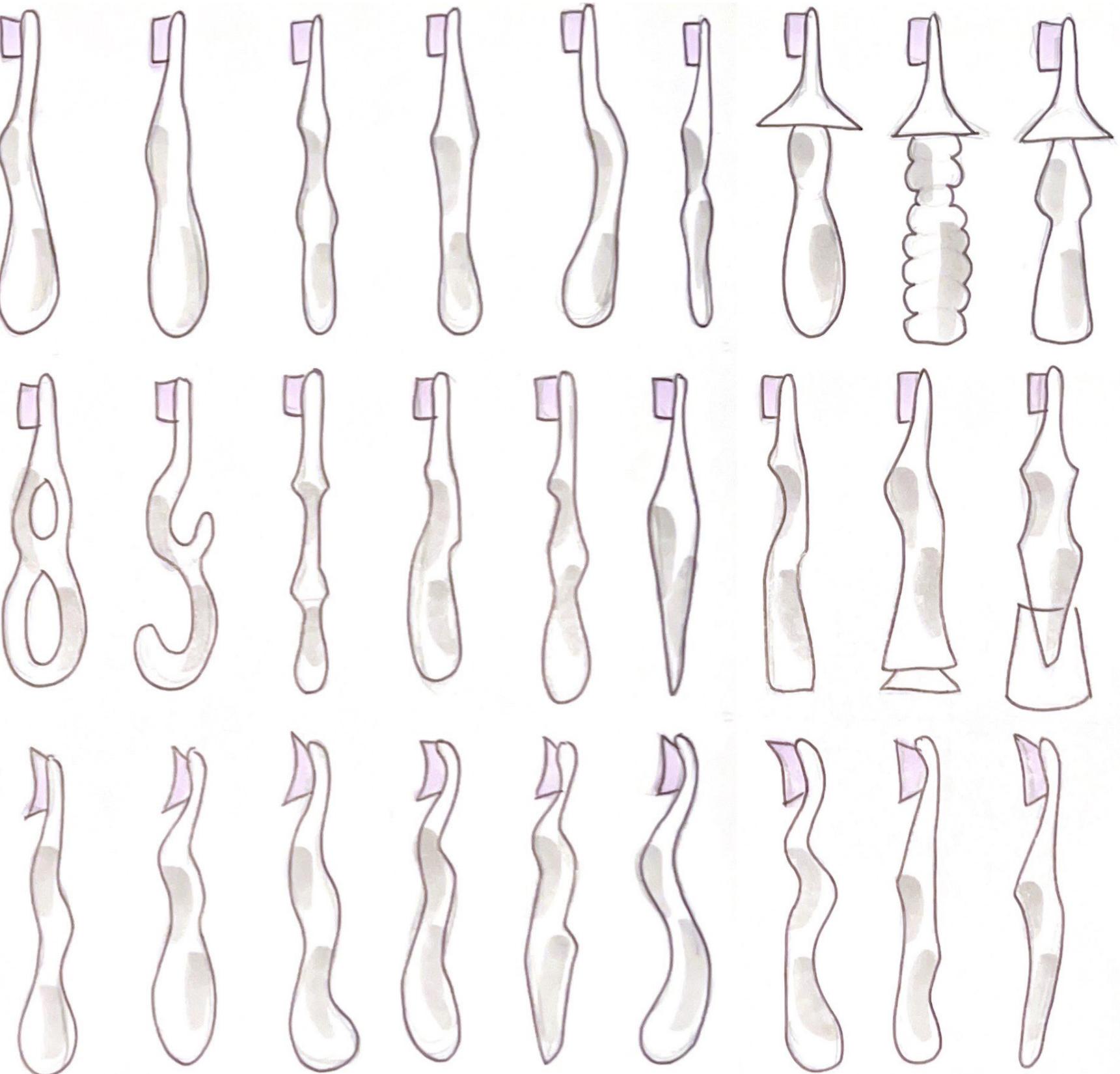
Research a demographic of your choice and find problem areas they are experiencing. Using that research, find solutions for that demographic that can be solved through product design. Pitch your final design through renders and a case study.

MY APPROACH:

I focused on kids, ages 2-6, as my demographic. I wanted to incorporate my interest in ergonomics, so I specifically researched fine motor skills development. The research highlighted a challenge with learning proper dental care as toddlers.

As a result, I expanded my demographic to include parents.

I designed a toothbrush as a teaching tool for parents to show their kids how to properly brush. Also, as a kid-friendly instrument, it empowers them to become more confident in their skill, while bonding with their parents.





PROTOTYPING:

I came up with the concept of a dual-handle toothbrush that allows a kid and a parent to hold the toothbrush simultaneously.

It ensures kids learn how it feels to brush properly, and allows parents properly care for their kid's teeth.

The symmetrical grip ensures both users can hold at any angle comfortably. With the changing tips, the kid can grow using this brush until they can brush on their own.

I prototyped different grip types and tested them with kids and parents.

