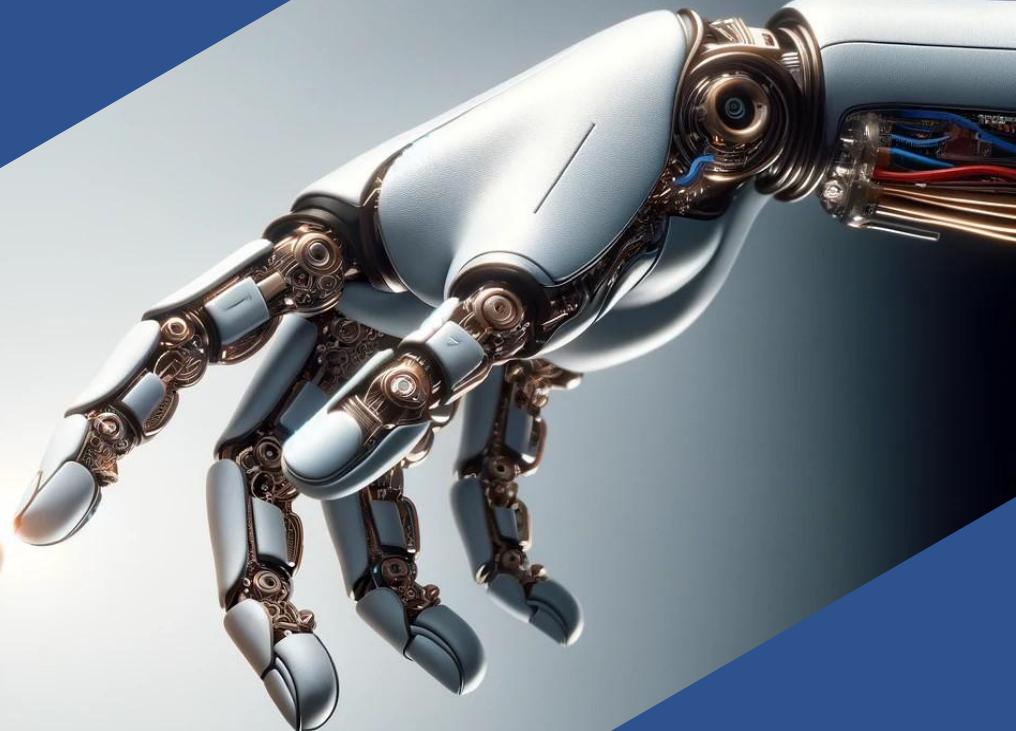


# Embodied A.I.

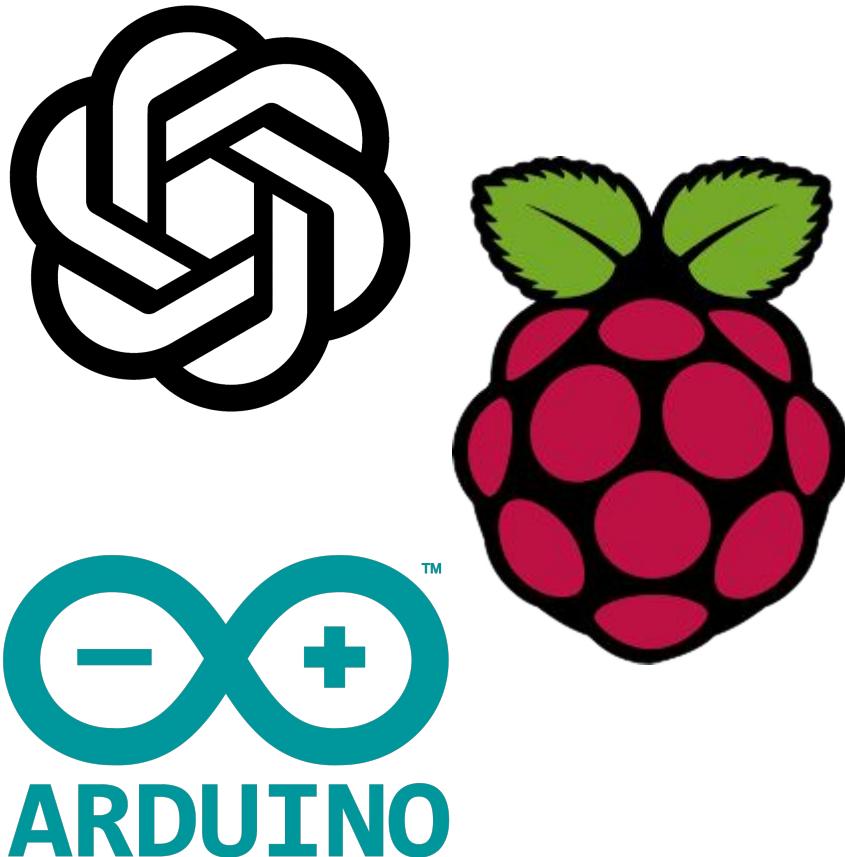
Final Studio



Grant Geist  
May 2024

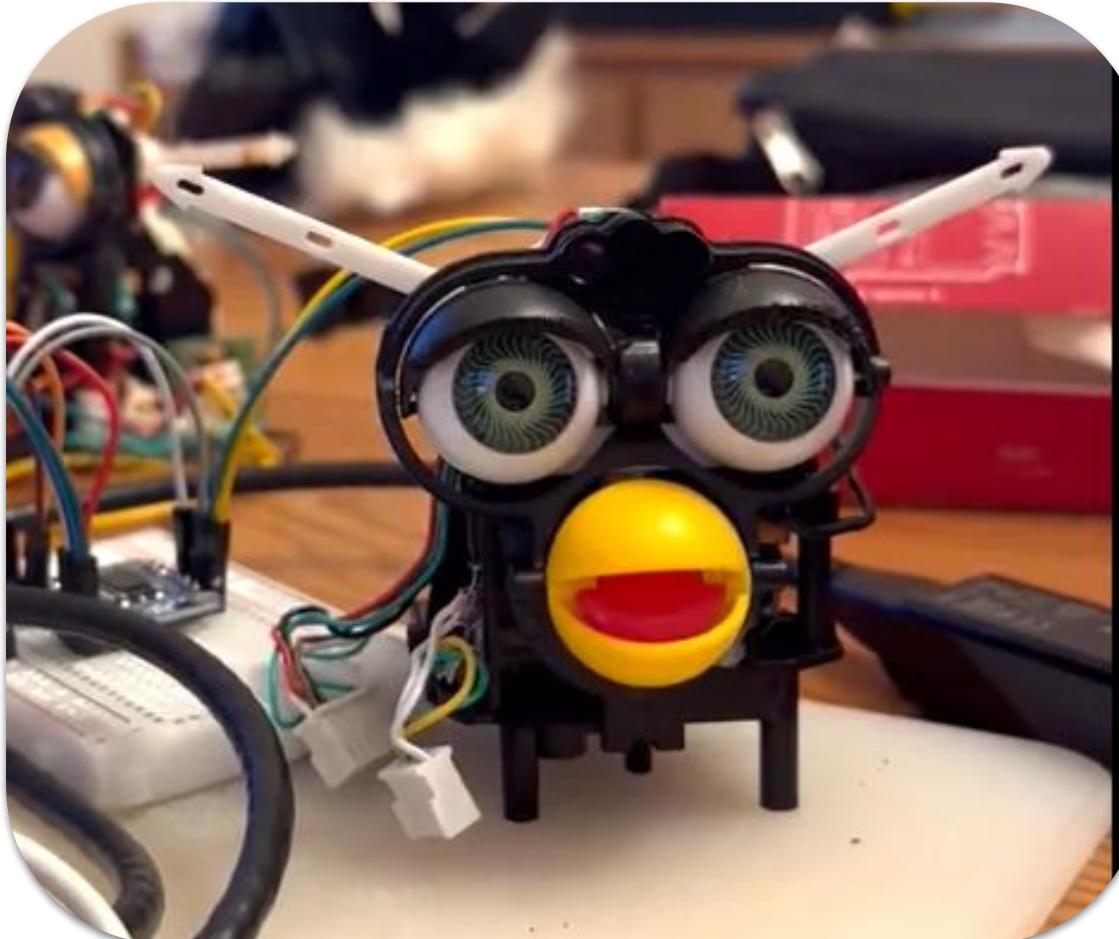
# Overview

- The AI and consumer robotics fields are growing fast
- ChatGPT and other generative A.I. models are extremely user-friendly and affordable
- Open source electronics like Arduino and Raspberry Pi are readily available



# The Opportunity and Challenge

- Creatives are starting to combine generative A.I. with open source hardware in new ways
- Projects require programming, hardware and design skills that put them out of reach for most people.



# Persona

- Curious and creative. They are looking to explore the design space where hardware meets software
- Excited to gain a basic understanding of programming, hardware and design
- Looking for a product that encourages customizability and creativity



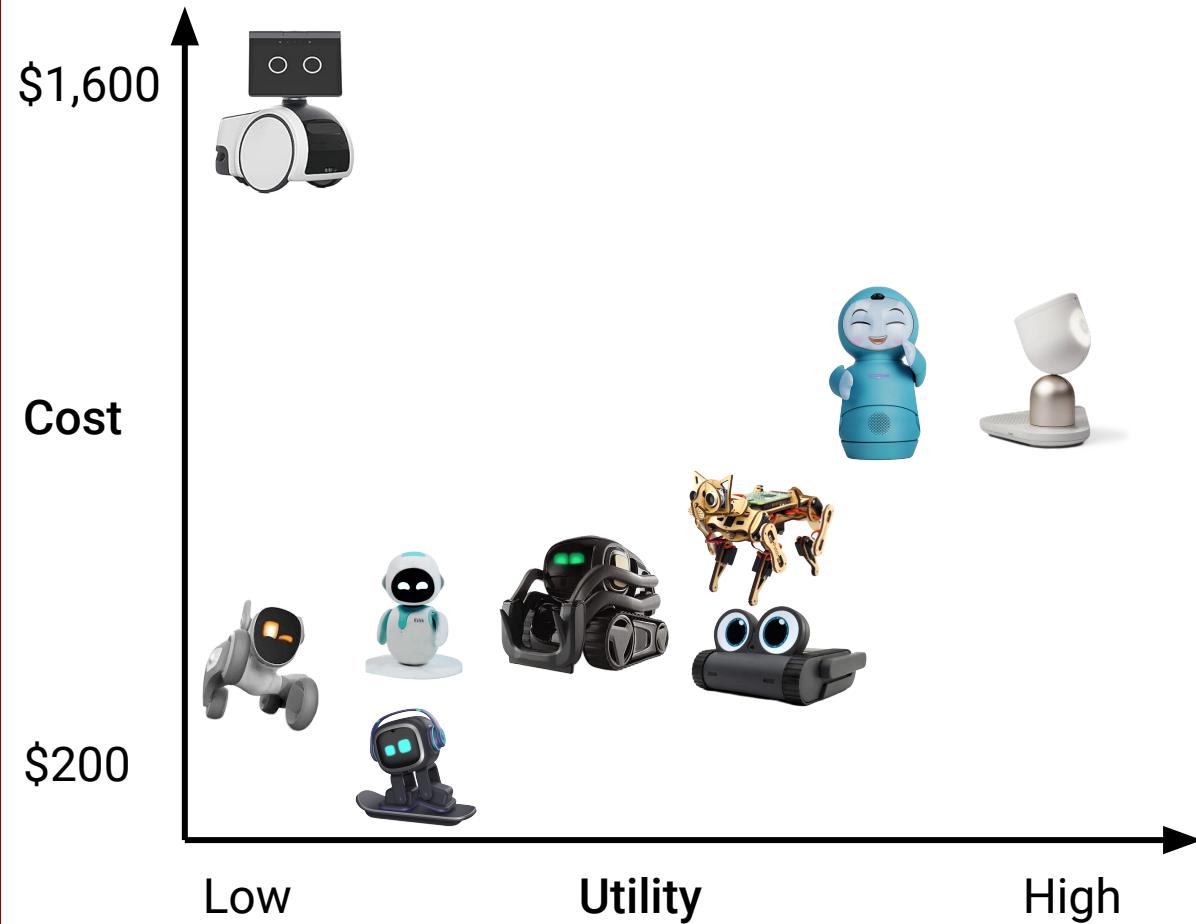
# Market Analysis

- The most common embodied A.I. devices are smart speakers such as Amazon's Echo
- Customization is limited, and the design lacks personality



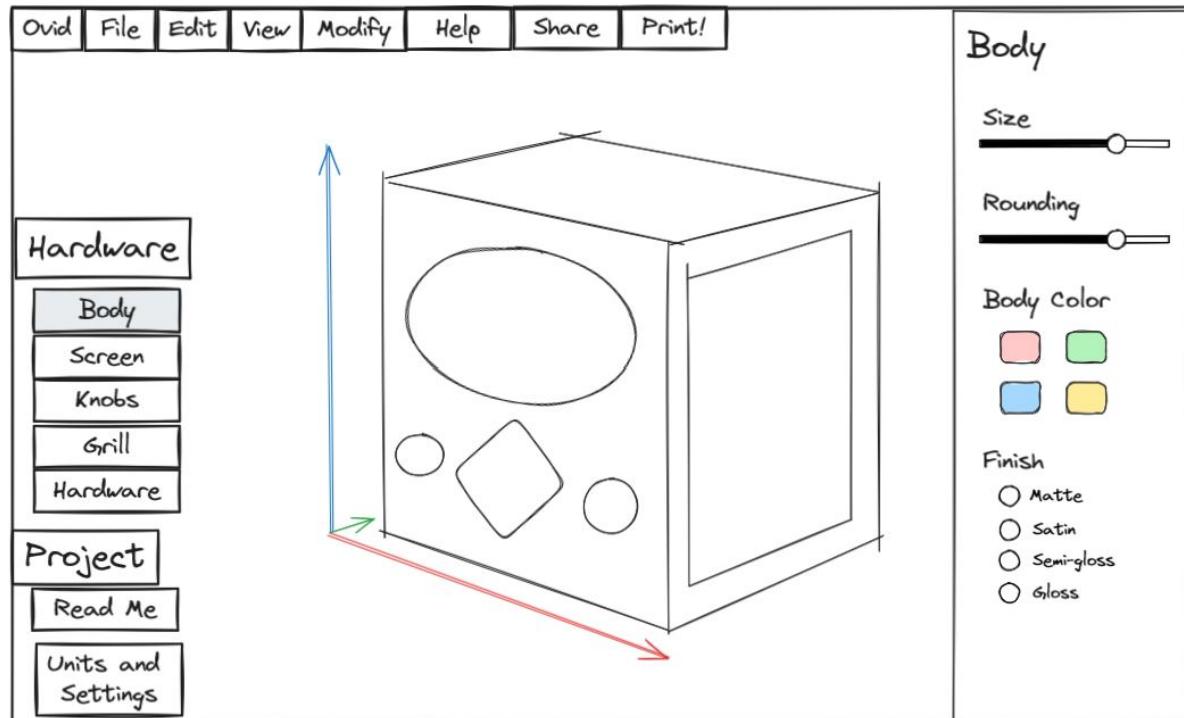
# Market Analysis

- Outside of smart speakers, there are three general categories of embodied A.I. systems:
  - Toys
  - STEM toys
  - Companion robots
- Products with high utility and customizability at a reasonable price point (\$200 - \$300) are missing from the market



# The Idea (Part 1)

Customers use a simple parametric design tool to customize their 3D printed embodied A.I. shell



# The Idea (Part 2)

Customers create their personalized A.I. assistant via a no-code interface

The image shows a hand-drawn wireframe of a software application interface. At the top is a menu bar with the following items: Ovid, File, Edit, View, Modify, Help, Share, and Print!. Below the menu is a large empty white area. In the bottom-left corner, there is a vertical sidebar with several buttons:

- Software
- Eyes
- Personality
- A.I. Instance
- Project
- Read Me
- Units and Settings

In the center of the screen, there are two circular eye icons. Below them is a speaker icon with the text "Preview Personality" next to it. To the right of the eyes is a section titled "Select Eyes" with three circular eye options: blue, blue with dots, and red. Further down are sliders for "Eye Distance" and "Reactivity". On the far right, there is a section titled "Personality" with four personality trait sliders labeled I-E, N-S, T-F, and J-P.

I	E
<input type="range"/>	

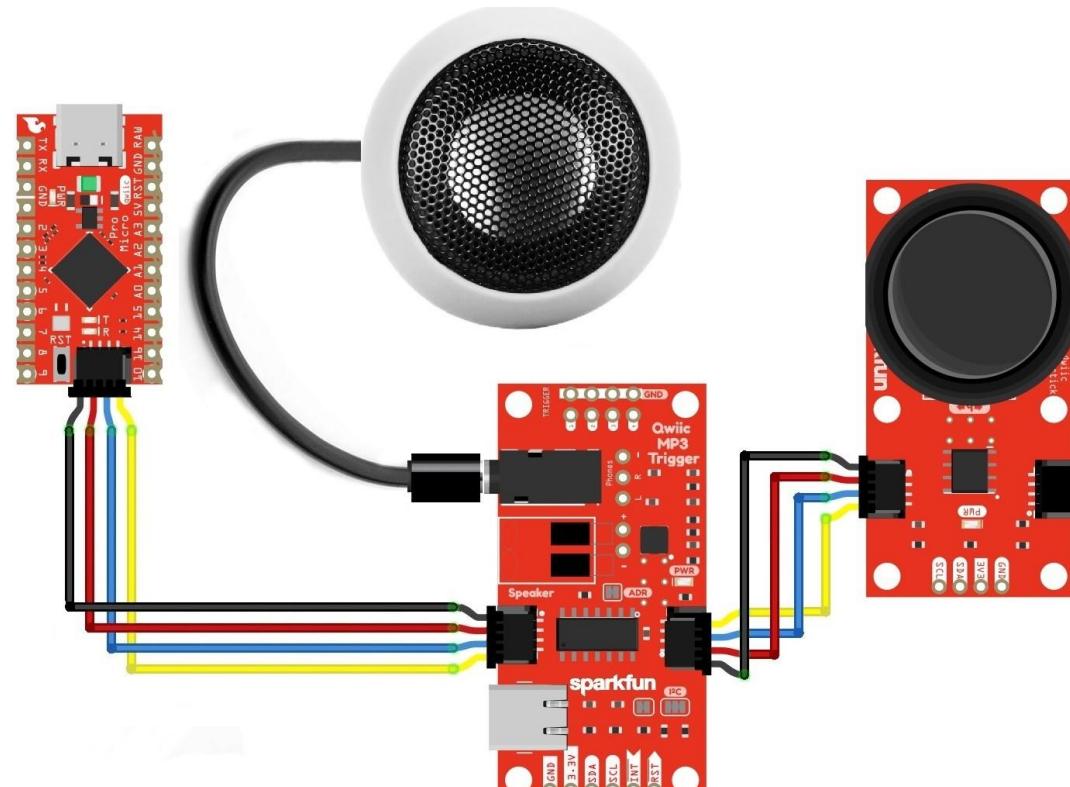
N	S
<input type="range"/>	

T	F
<input type="range"/>	

J	P
<input type="range"/>	

# The Idea (Part 3)

The hardware in the embodied A.I. system leverages Qwiic connectors which eliminates the need to worry about wiring and soldering



fritzing

# Designing the Embodied A.I. Shell

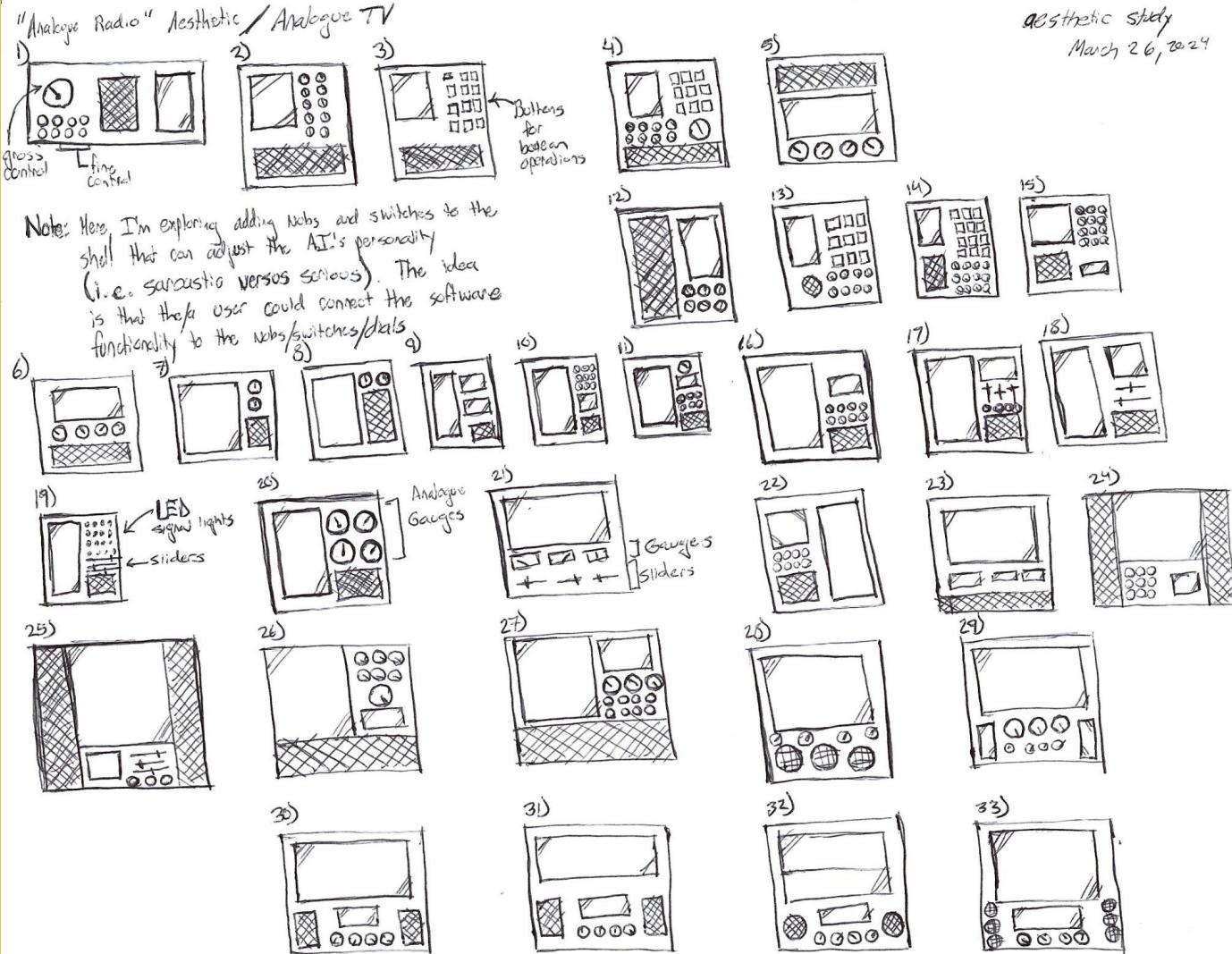
Embodied A.I. should be cool, not creepy or scary. Nostalgia and analog affordances might provide users with a sense of control over the technology. Think:

- Vintage Technology
- Retrofuturism
- Streamlining
- Geometric
- Fluidity



# Ideation

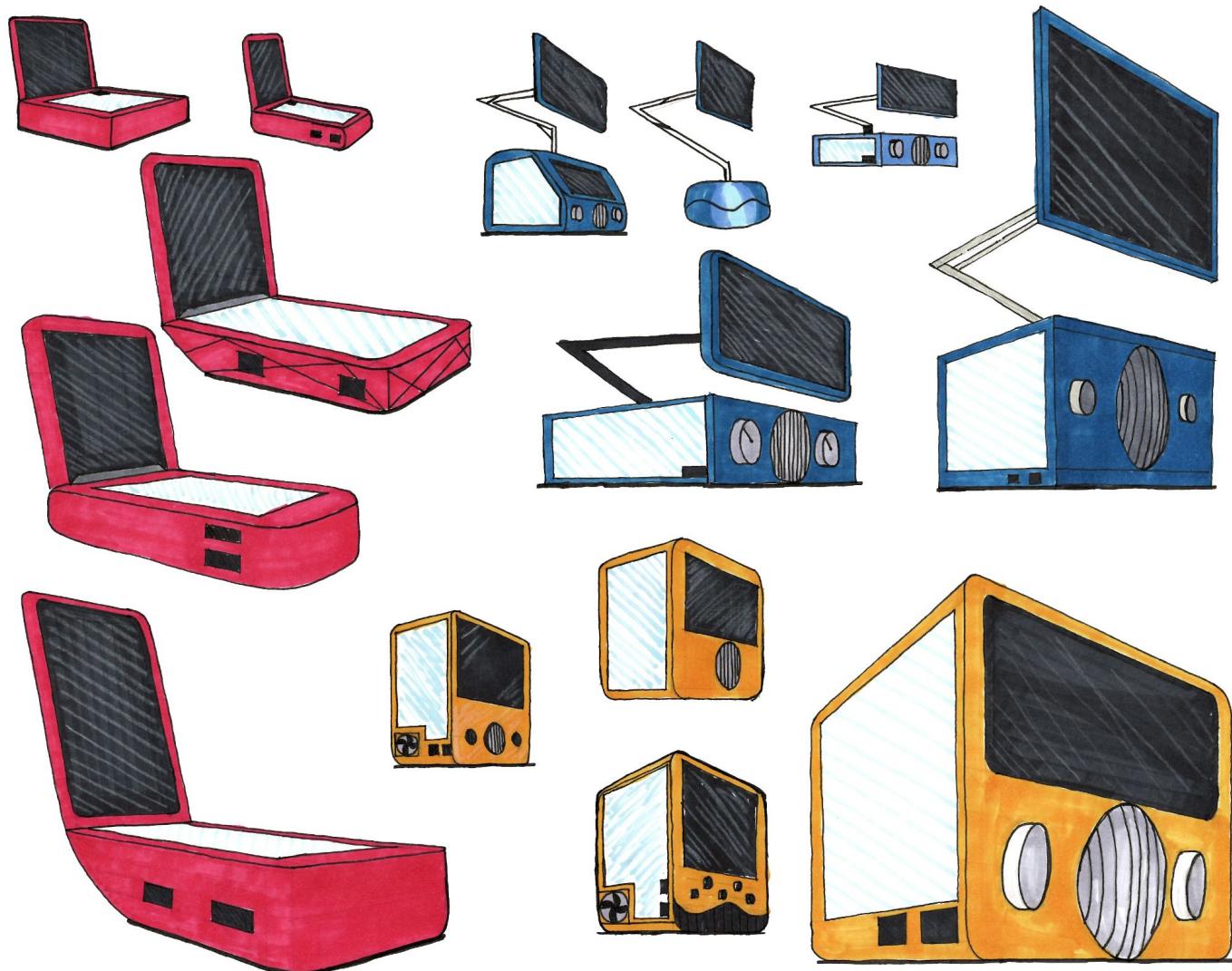
Two dimensional sketches to figure out the personality of the product



# Ideation

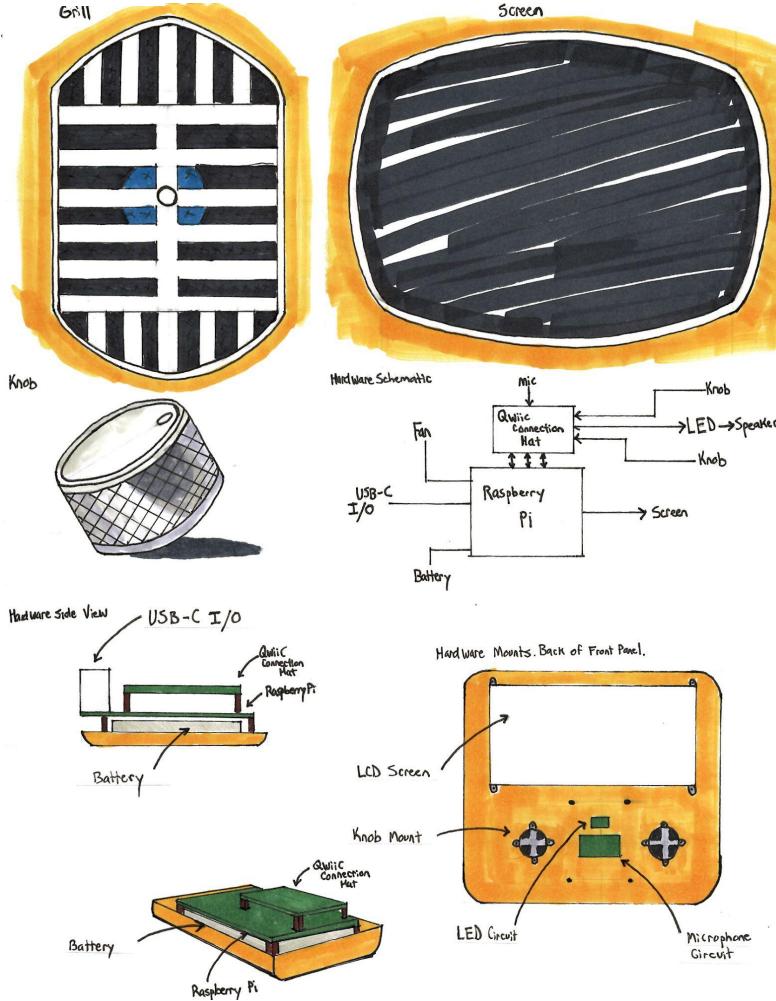
## Aesthetic Experiments

- 90s flip phone
- Luxo L1 (lamp)
- 50s radio

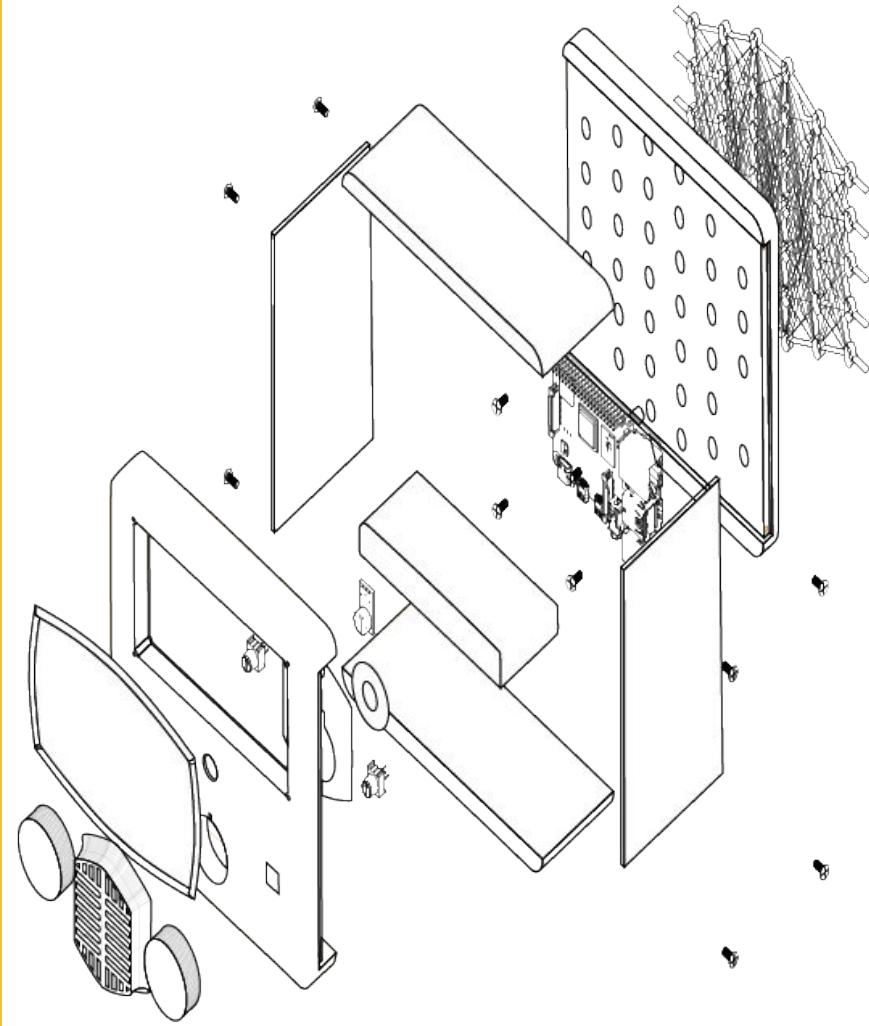


# Ideation

Size and assembly exploration



# Concept









**Thank you!**



**Roboto Bold (24)**

Roboto Normal 18



**Roboto Bold (24)**

Roboto Normal 18



**Roboto Bold (24)**

Roboto Normal 18



Use 'group' to  
merge the  
shapes