

“No matter how big
the despair... Hope will
always win in the end”

Nagito Komaeda

I am a creative technologist who is passionate about assistive technology and interactive design. I hold a B.S in Creative Technologies and Physics from Berry College where I created mobility aids and interactive technologies.







COSPLAID

This mobility aid was made for an Ibuki Mioda Cosplayer. It is a guitar which transforms into a cane with a dovetail joint. The guitar was 3D modeled Fusion360. The body was cut with a CNC machine and the handle was 3D printed.

3D Modeling, Fusion 360, CNC

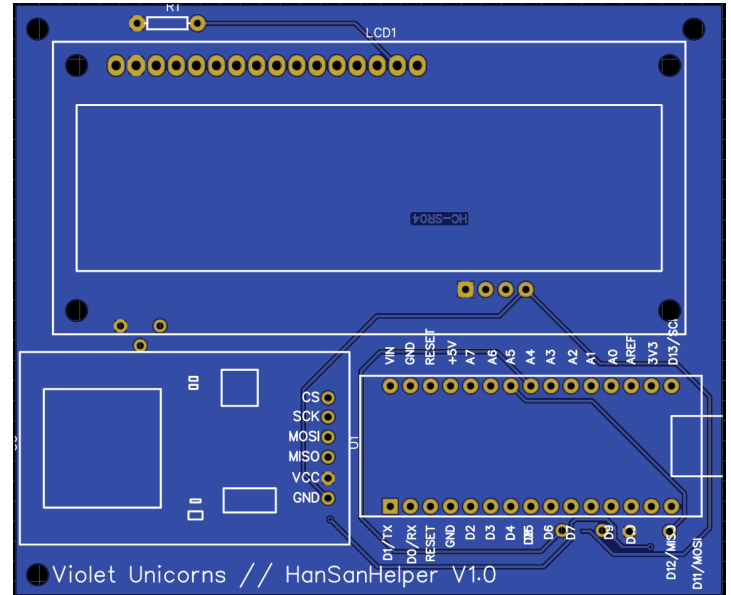




THE HAN-SAN STATION

This project uses an ultrasonic range finder to detect the amount of people coming in to a building. It also uses an IR sensor to determine how many people sanitize their hands. The information is displayed on a LCD screen. This is used to measure the sanitization rate of people entering a building.

[Fusion360](#), [Arduino](#), [PCB Design](#)





Pills: 30

Important Information

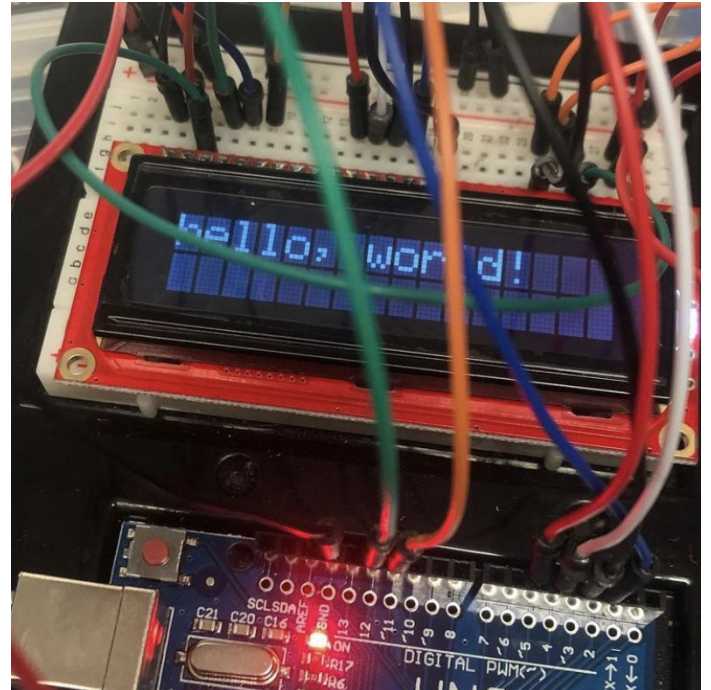
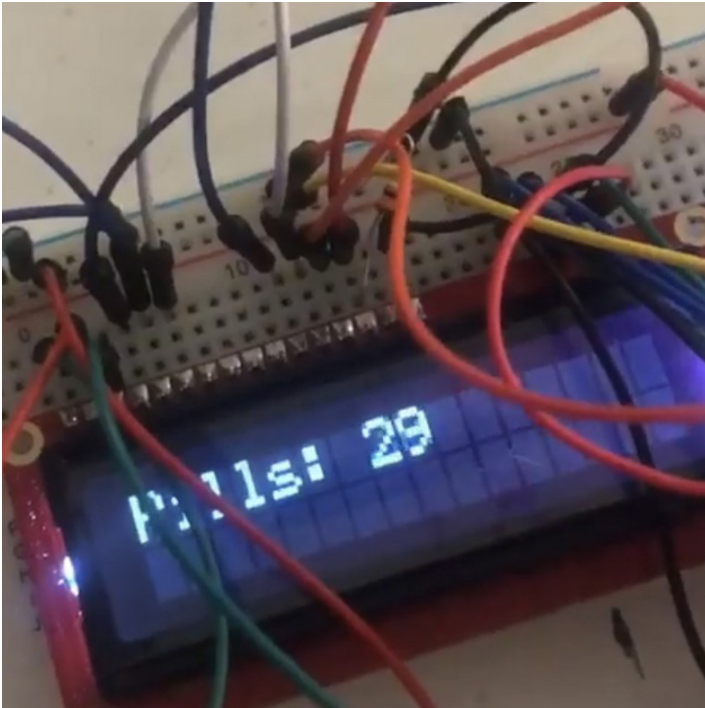
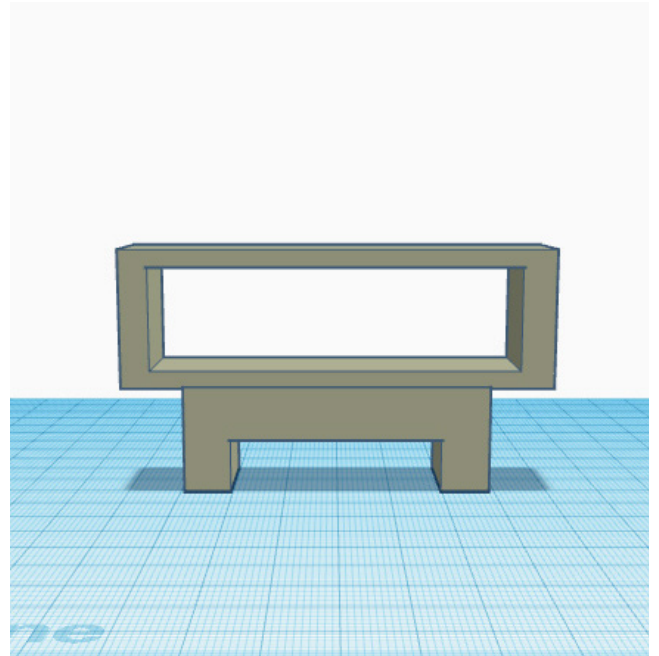
May cause drowsiness and dizziness. Careful using vehicle, vessel, machines.
- 3rd trimester use may cause health problems. Discuss with dr or rph.
- Call doctor if you experience mood changes, sadness, depression or fear

Caution: Federal law prohibits the sale of this drug to anyone who has not obtained a prescription.

OVER THE COUNTER

Over the Counter is a pill counter for people with memory problems. It has two buttons on the top. One button decreases the amount of pills shown on the LCD screen. The other one refills the number on the screen. Users press the decrease button whenever they take a pill. Once the counter reaches 7 the screen prompts the user to call their doctor.

Arduino, 3D Printing







MOBILITY AID DESIGNS

Cosplayers who have mobility based disabilities should have the ability to incorporate their disability into their costume. I designed several mobility aids for people who cosplay characters from works such as Danganronpa, My Hero Academia, and Doki Doki Literature Club

3D Modeling, Fusion360



ANIME IS AN IMPORTANT PART OF OUR CULTURE

These lamps are laser engraved with a custom laser setting I designed. They show different anime characters and anime related designs. The bottoms are 3D printed and contain a PCB I designed. The lights are controlled by an ATTiny85.

Laser Cutting, 3D Printing, PCB Design, Arduino

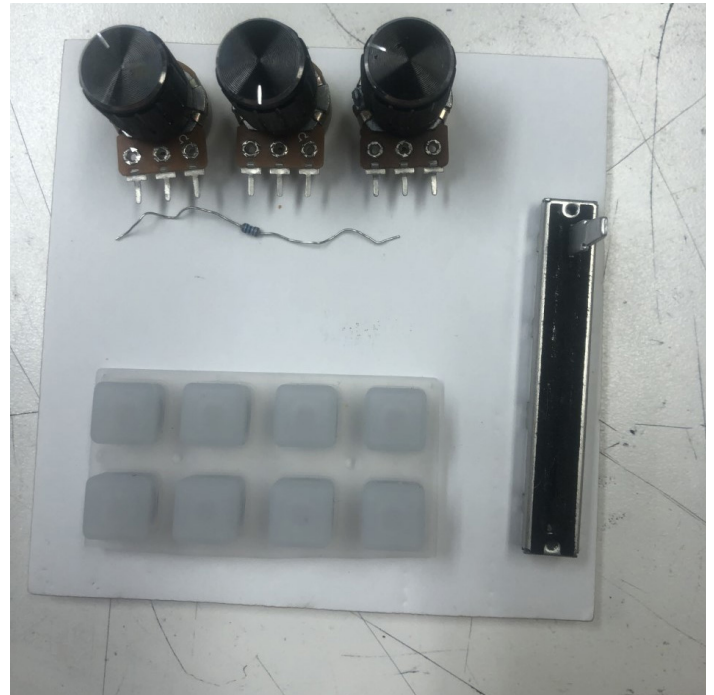
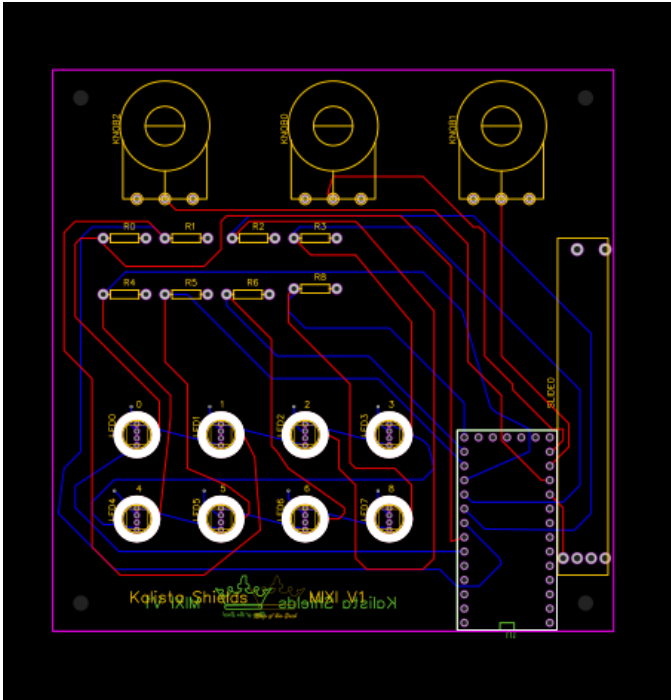


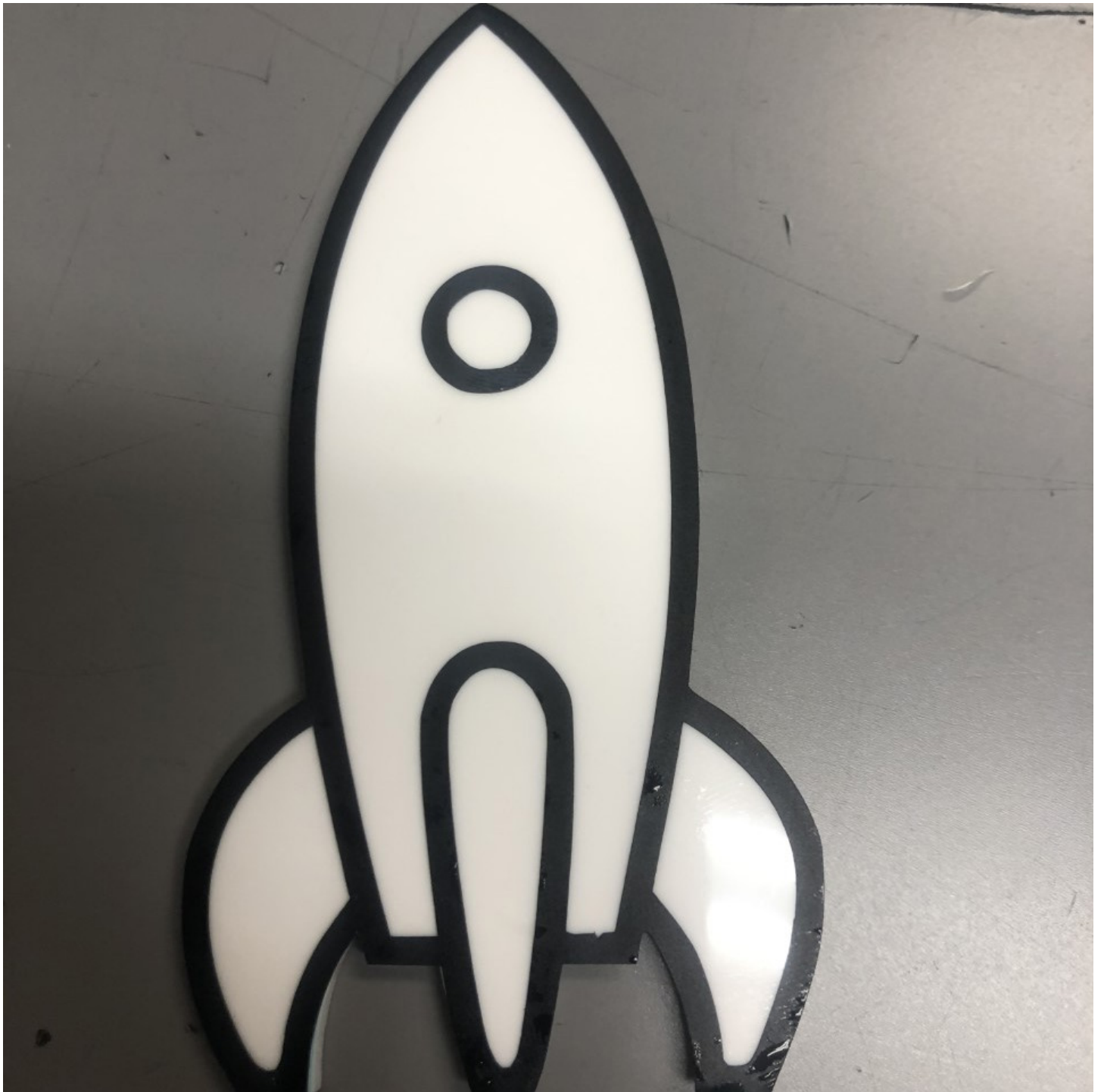


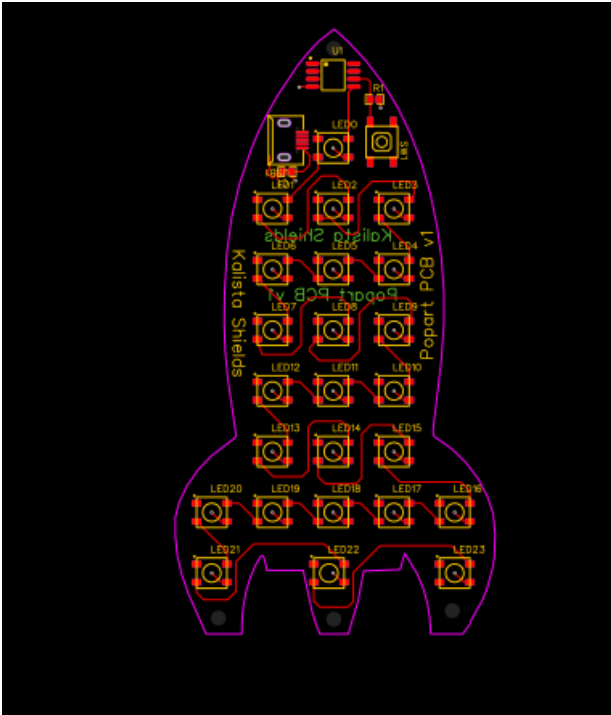
MIDI MIXER

This project allows the user to take MIDI inputs and mix them using the four potentiometers. The Midi Mixer can switch between three different modes to allow for 18 unique sounds. The enclosure for the mixer was meant to mimic old worn guitar cases to have more of a rock aesthetic.

PCB Design, Arduino, Laser Cutting



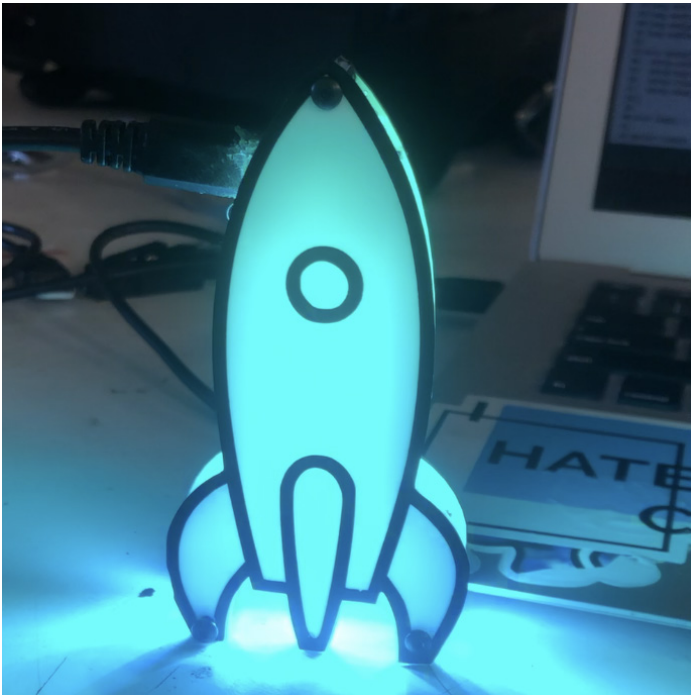




POP-ART PCB

Pop-Art PCB uses multi-dimensional arrays in order to display various animations on the LCDs that are Surface Mounted on the PCB. An ATTINY85 controls the lights and animation. The acrylic panel that diffuses the light is laser cut and has a vinyl finish on top.

[Arduino, PCB Design, Laser Cutting](#)

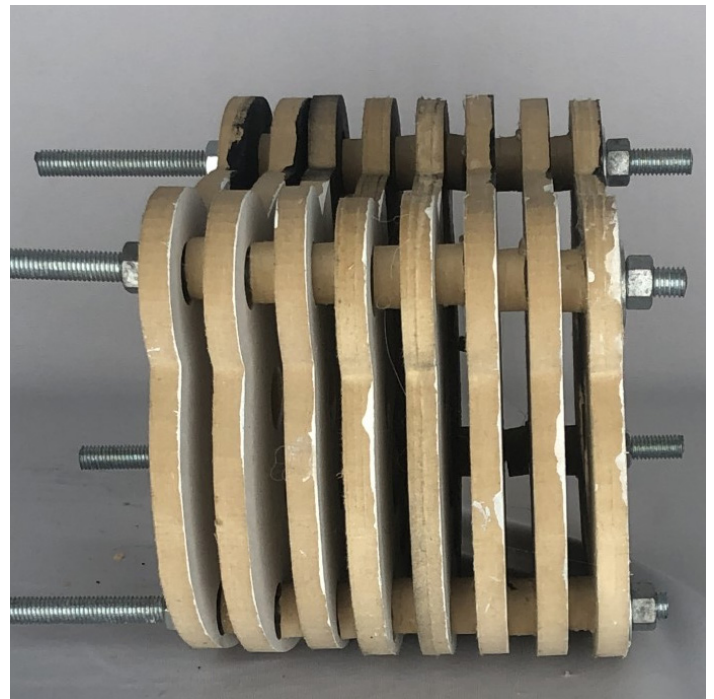


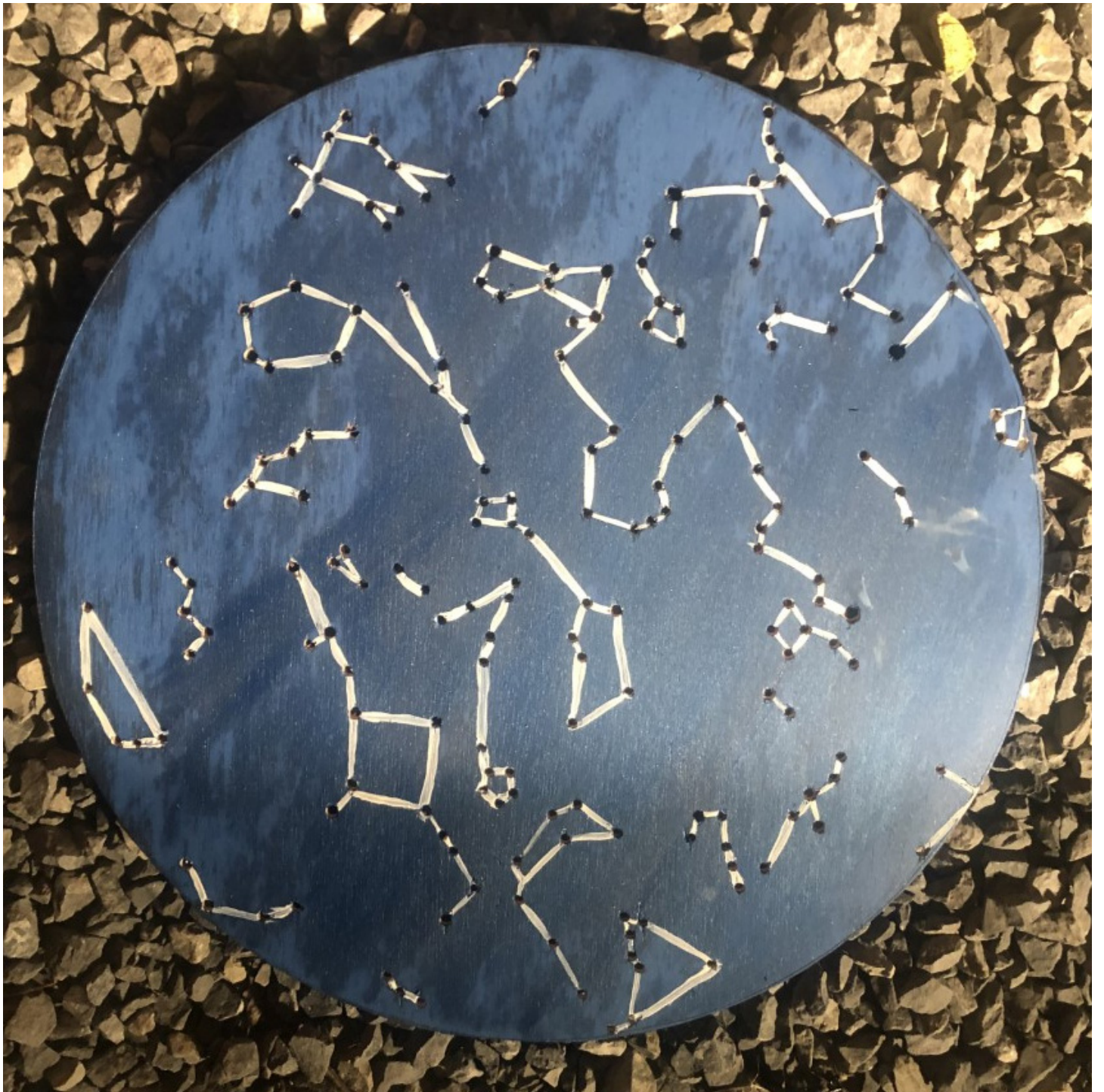


CAMPFIRE STOOL

This project is a stool which takes the form of the mascot of the Danganronpa franchise, Monokuma. The stool was made on a CNC machine and designed in Fusion360. It is not meant to be comfortable, as the placement of the metal rods mimic the Spears of Gungnir execution from the first game.

[CNC Machining](#), [Fusion360](#), [Post Processing](#)





STARRY NIGHT

This project is a decorative piece meant to look like the night sky. The neo-pixel matrix on the back has three different settings that show different light patterns. The design was laser cut and drilled into using a template in order to show off the lights.

[Arduino](#), [Carpentry](#), [Laser Cutting](#)



BOOMY THE CAT



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BOOMY THE CAT

This project is a combination of a game I created and the arcade cabinet that it is enclosed in. The cabinet is made of particle board and uses a joystick and buttons in order to get the main character, Boomy, to run across the screen. In the game, Boomy must run from the police who are infected with Lynks Disease to save the town of Wham City.

Processing, Arduino, Carpentry

