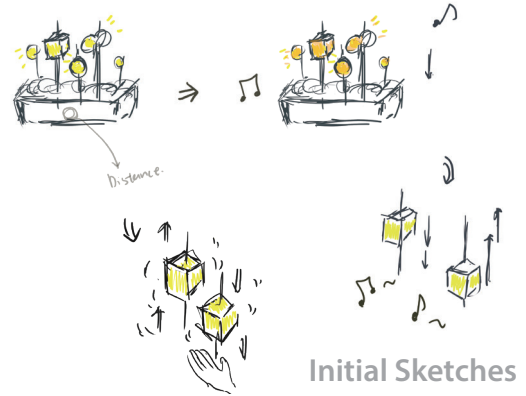


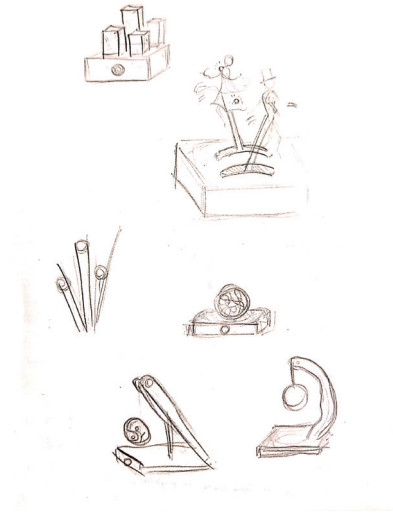
Midterm Project

Initial Idea:

My initial idea is to make an interaction light. The color of the light will be affected by the sound and the movement will be affected by the PIR sensor. When the motion is detected, the servo will start moving. On the right is my initial sketch of the interaction light. Two input and output include: LED, a servo, a PIR sensor and a microphone breakout amplifier.



Initial Sketches



Movement Sketches

Experimentation:

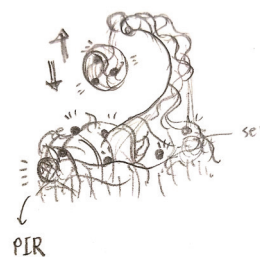
I tried a few different ways to sketch the form and the movement of the servo. Because of the weight and the specific angle of the movement, I end up using a string to connect the servo and the object that I want it to move.



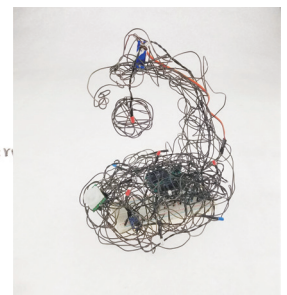
Prototype

Final Form:

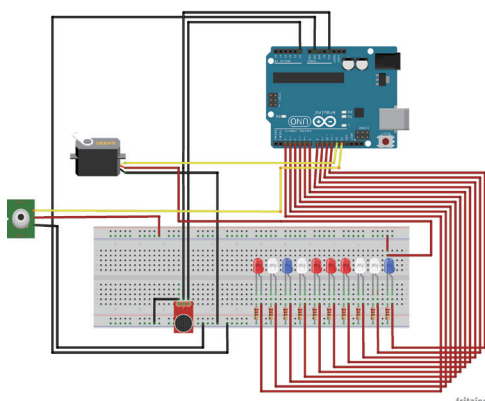
I got inspired by the lecture from Scott Kildall that his works show all the wire and Arduino board in front of the audience. Although his project has different purpose and function than mine, I still trying to play with this idea of exposing the technology. I always try to hide everything underneath or in the box, so why not use different form to display this time. In the result I decided to use all the wires to create the form of the sculpture and it also created an interesting match with the real wires.



Final Sketch



Final Form



Arduino

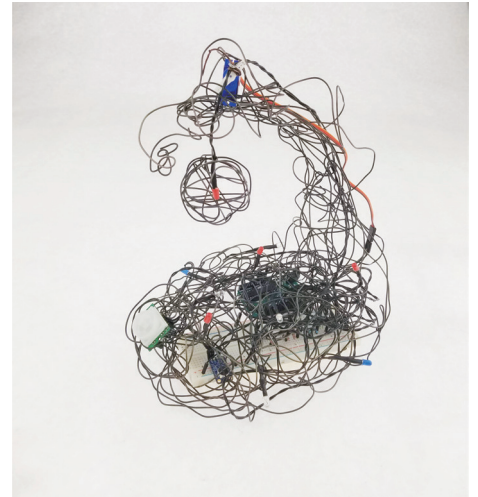
Connect the Arduino:

It is the schematic showing the connection of all the input and output. I decided to use more LED lights for the sculpture. I make the red LED lights turn on while the motion is detected by the PIR sensor. I used red to contrast with the blue, and white LED.

Midterm Project

Concept:

I want to expose everything inside to show all the wires and sensors. It represents chaos, but there are still light coming through. There is still hope and something good in this terrible world. All the wires are winding and struggling makes everything chaotic and complicate. The PIR sensor placed in the front of the base. The servo is at the top of the sculpture. It connected to the curve that hangs a ball with a red light in it. It will move up and down when the motion is detected. The red light and sound of the servo are unpleasant that represent the sense of the danger. It warns people to be careful. Something is coming.



No motion -
The light will change with the music.



Motion detected -
The Red LED will turn on.



Motion detected -
Only the Red LED will be turn on
and the servo will start moving.