

# Digital Portfolio

Group4

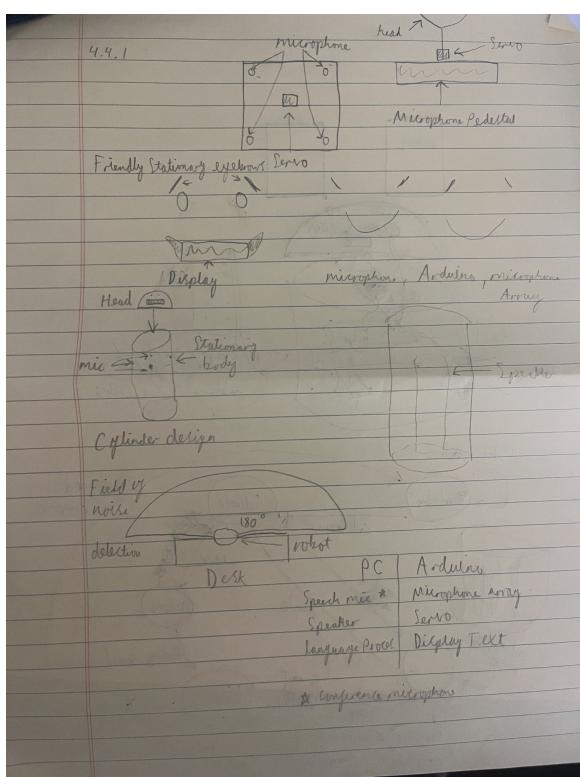
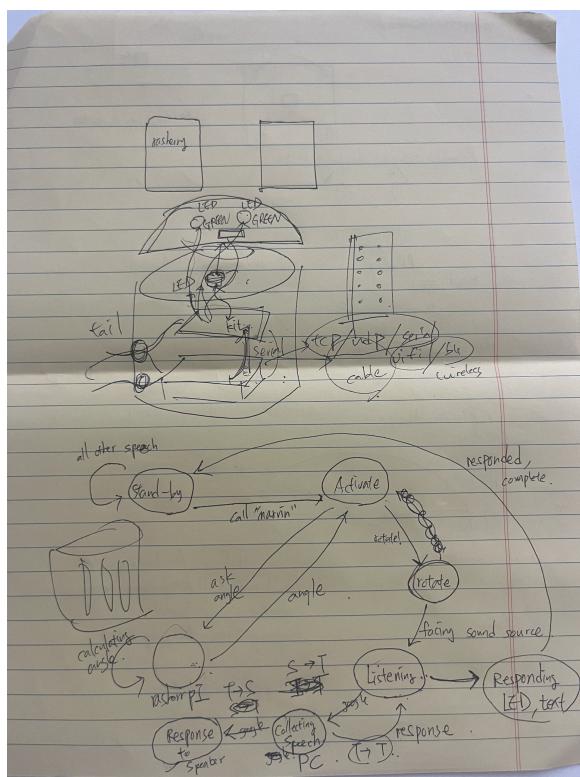
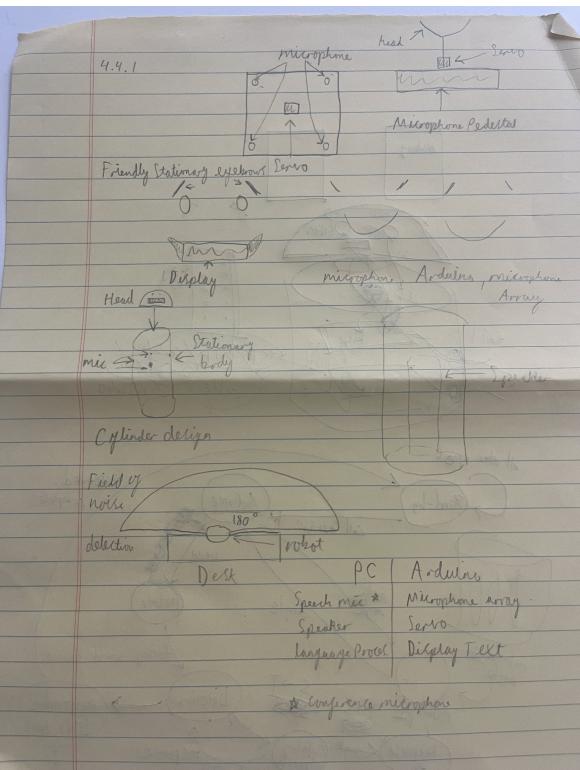
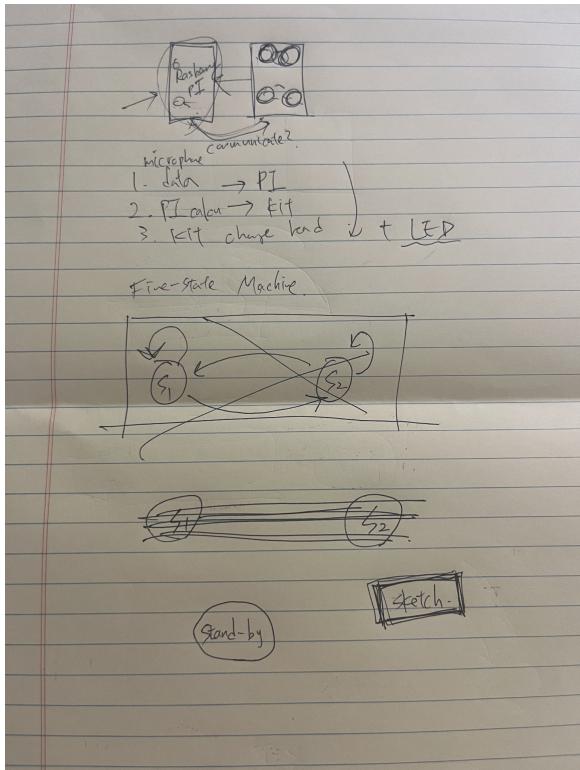
9212420231 Will Webster

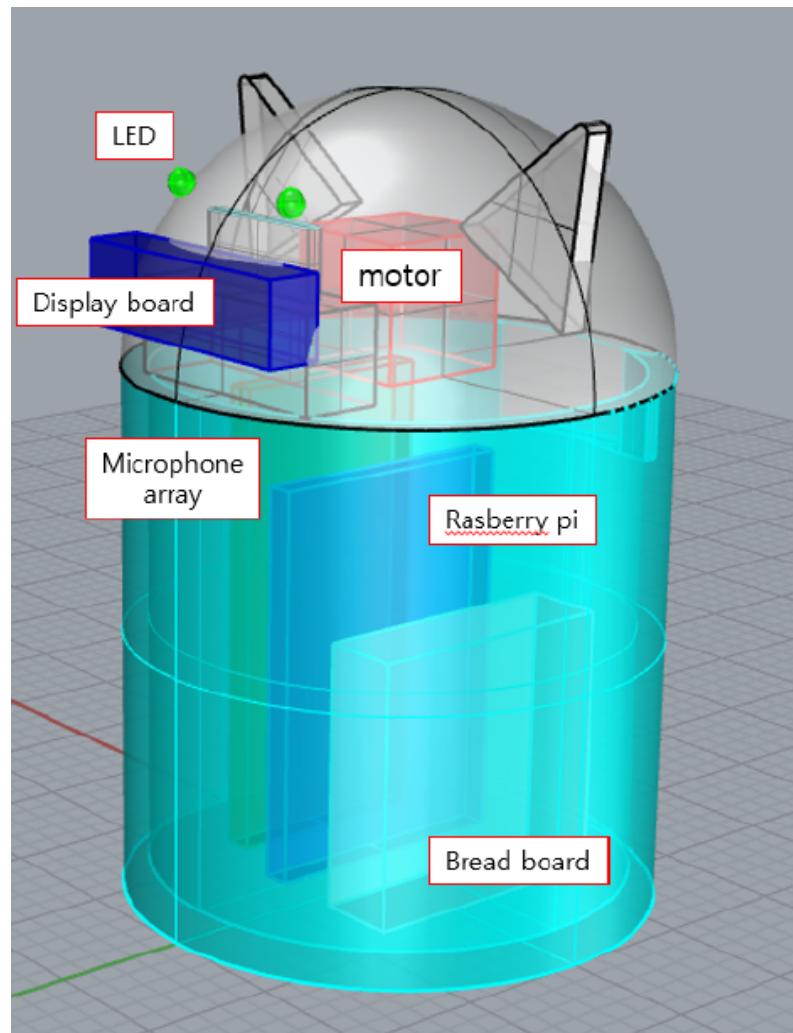
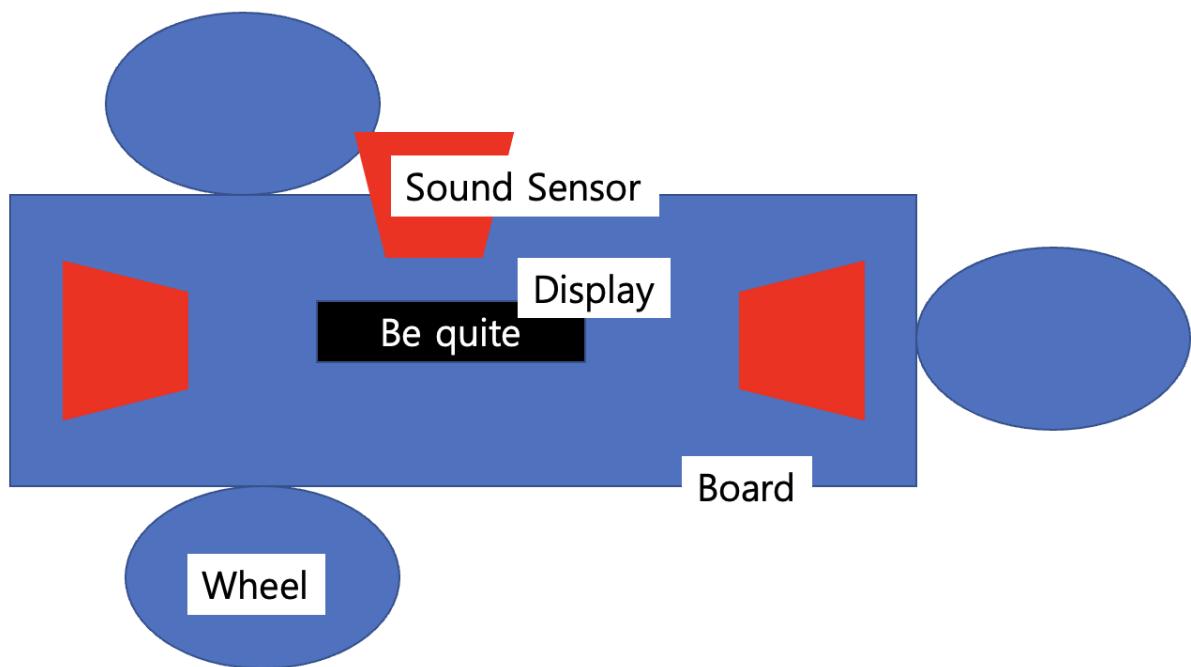
2018007938 MinKwan Kim(김민관)

2021029443 Yeeun Jeon(전예은)

## 1. Photos

### 1) Sketches





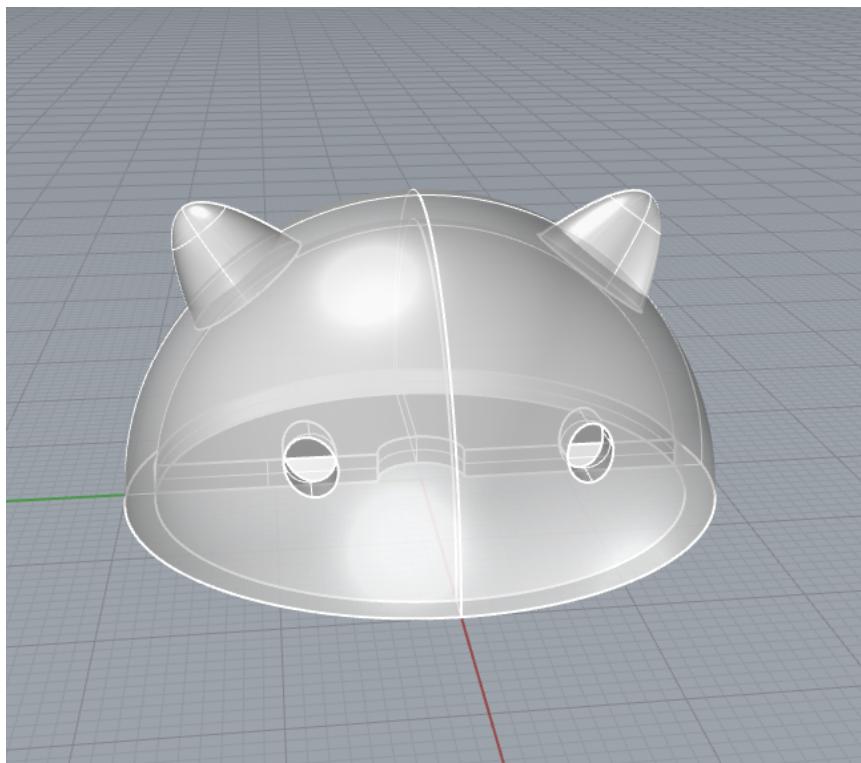
## 2) Initial Design of the robot head

We 3D printed the initial design in the Engineering 2 building.



## 3) 3D Modeling of the Robot

We used Rhino for the software to do 3D modeling.



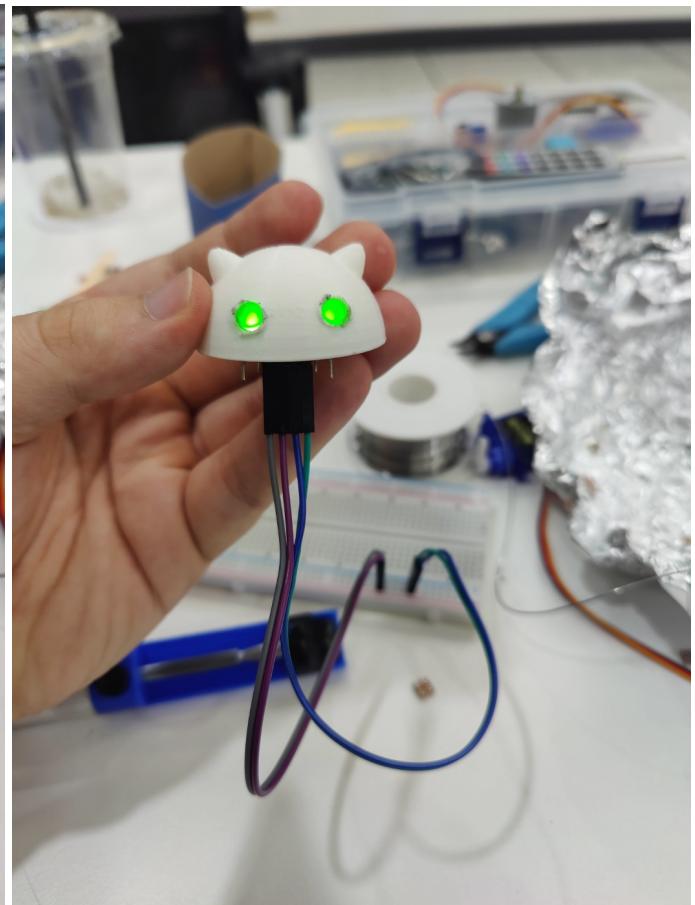
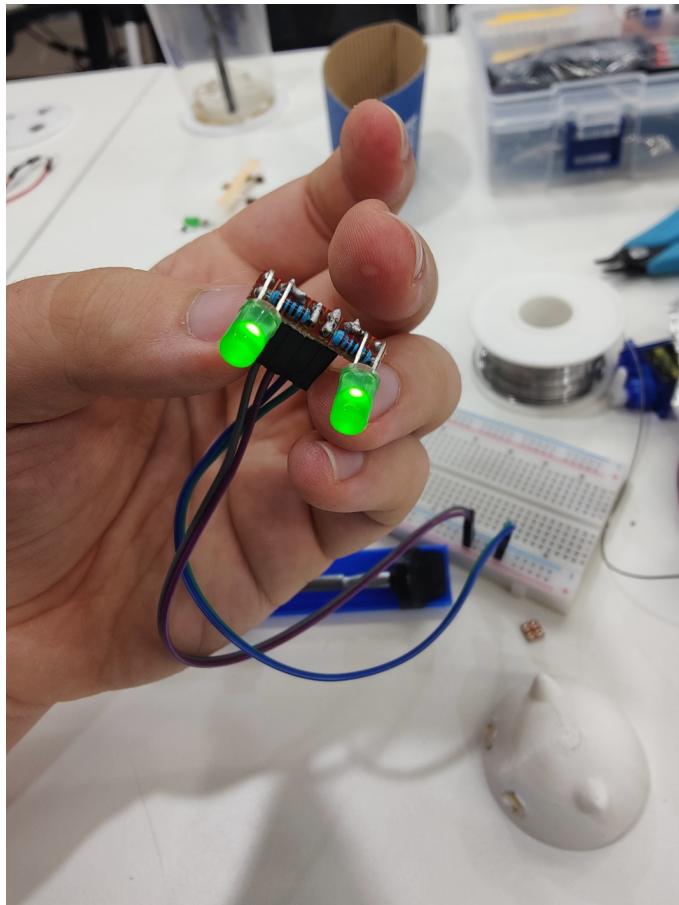
#### 4) 3D Print of the Robot

We did 3D printing of the robot head. The radius is two centimeters.



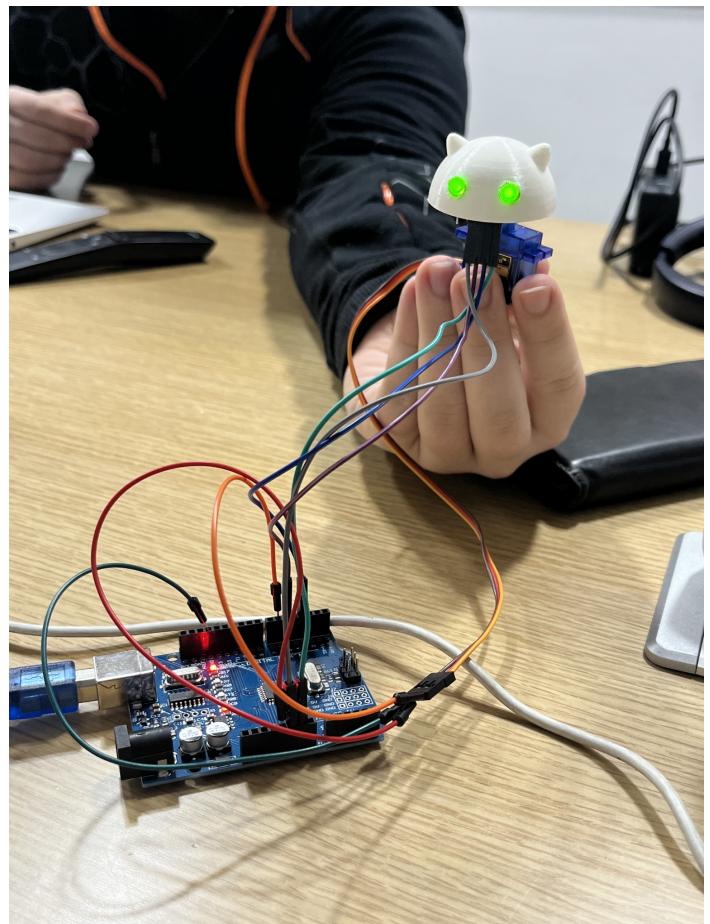
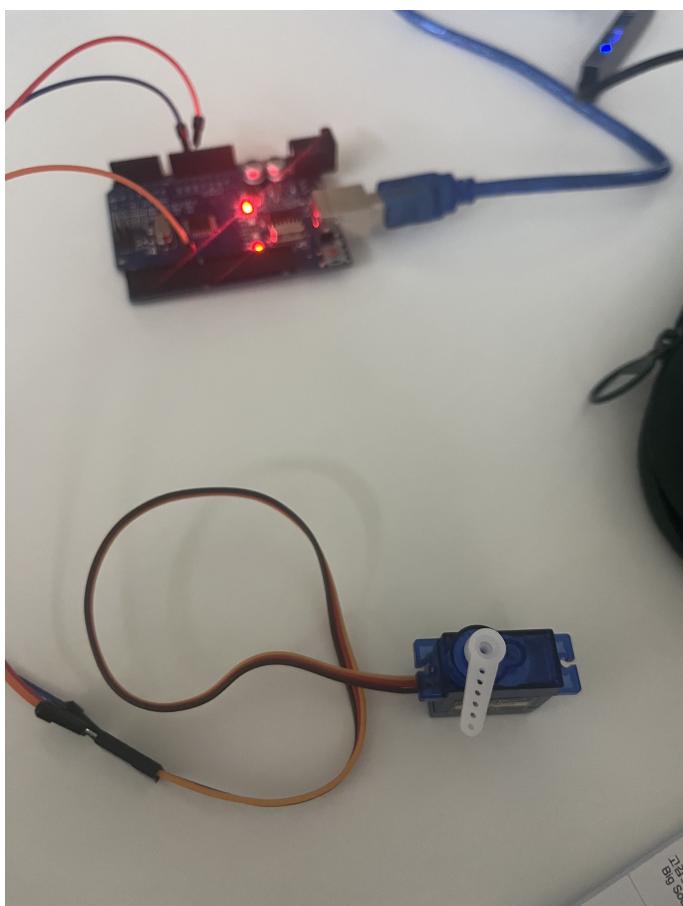
#### 5) LED

Used LEDs to make them look like the eyes of our robot.



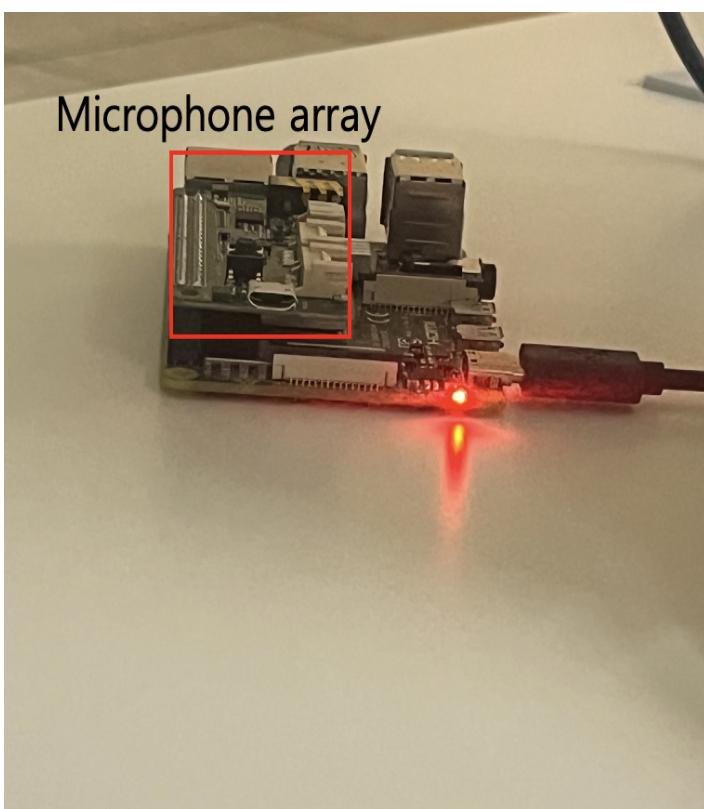
## 6) Motor

Used servo motor to turn the robot's head.



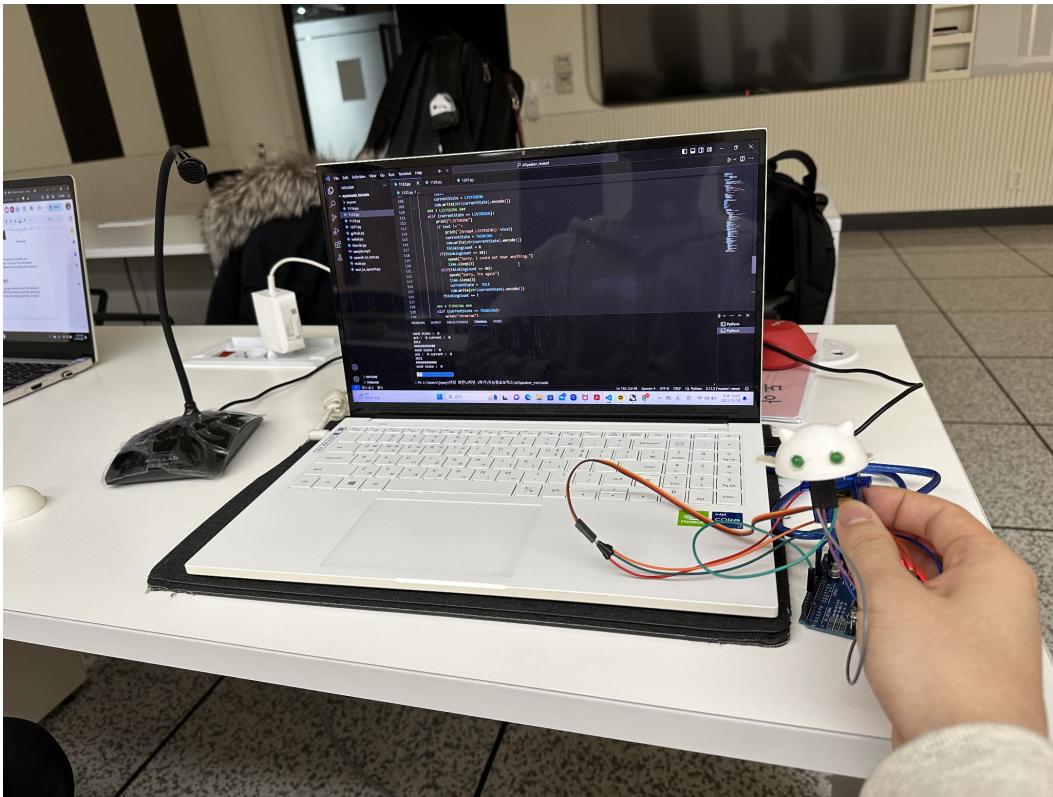
## 7) Speech Recognition

In our initial design, we were going to use the Raspberry Pi for speech recognition and Sound Source Detection (SSD), but due to technical difficulties, we used a microphone and our robot cannot perform SSD.



## 8) Final

This is the scene where we are testing our robot. We connect both the microphone and the arduino board and then test the robot.



## **2. Code**

- Github link: <https://github.com/kmk9846/HRI-CSE4055-.git>

## **3. Video**

- Video link: <https://photos.app.goo.gl/7ZaiD7GmmbHJENhj8>