EECS 690/700 EmbeddedML Lab #2-3

Microphone and Camera Sensors

In this lab, you will check microphone and camera sensors.

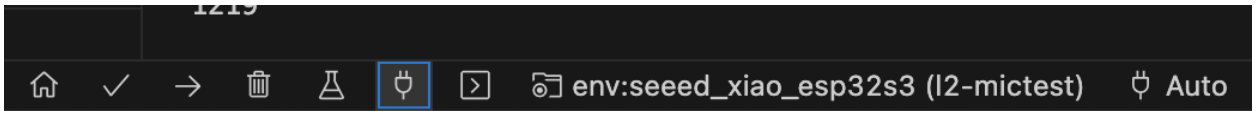
Part 1: Microphone Test

Add the l2-folder into the VSCode.

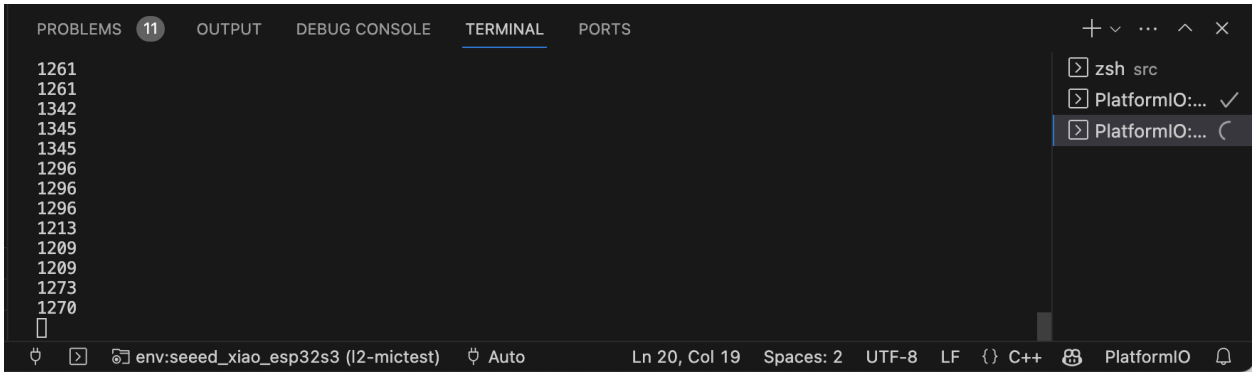
Connect the ESP32-S3 board.

Build and deploy the code to the ESP32-S3 board.

Click serial console (blue box in the figure below)



If it was successful, you should see numbers scrolling in the screen below. Speak something in front of the ESP32-S3 board. You should be able to see numbers change as you speak, indicating the MIC is working properly.



Part 2: Camera (and WiFi) Test

Add the l3-camtest folder in VSCode.

Locate the following code in main.cpp

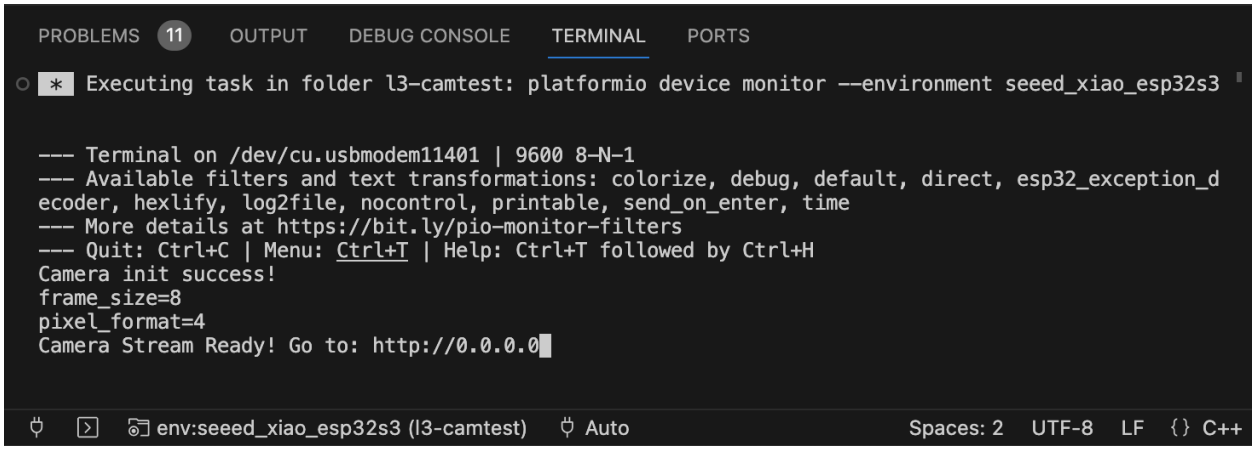
```
const char* ssid = "ESP32_YOUR_KUID";
```

Replace ‘YOUR_KUID’ string in the code with your KU ID.

Connect the ESP32-S3 board.

Build and deploy the code to the ESP32-S3 board.

You should be able to see something like the following in the serial terminal.



Now that the ESP32-S3 board is hosting a WiFi network.

Find the ESP32_<YOUR KUID> network from your laptop or smartphone and connect to the network as follows.

You need to enter the wifi password: ‘123456789’. (you can change the default password from the main.cpp)

Once the network is connected, use a browser and connect to: http://192.168.4.1
You should be able to see a live video stream from the camera as below.