

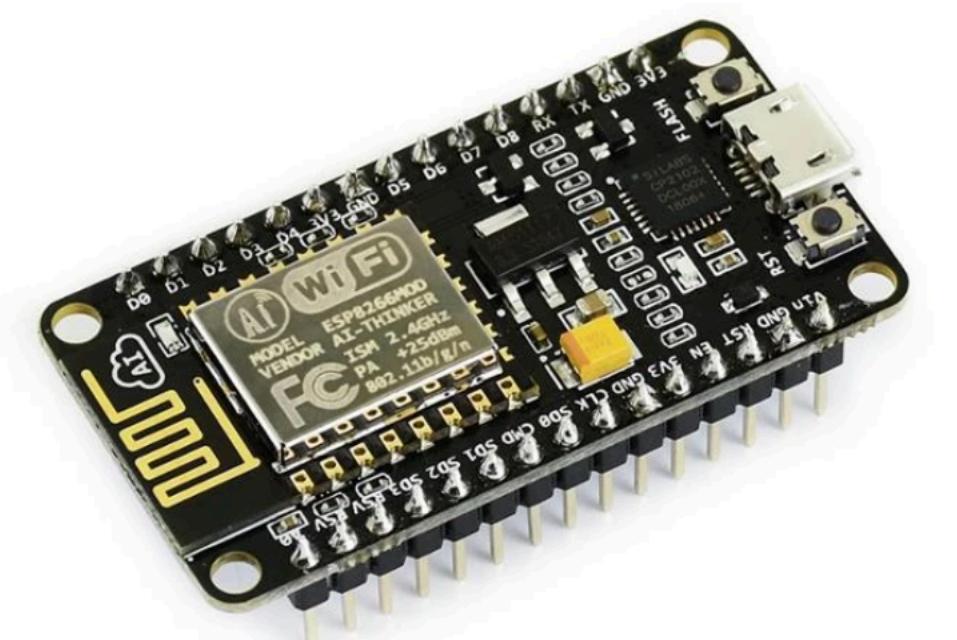
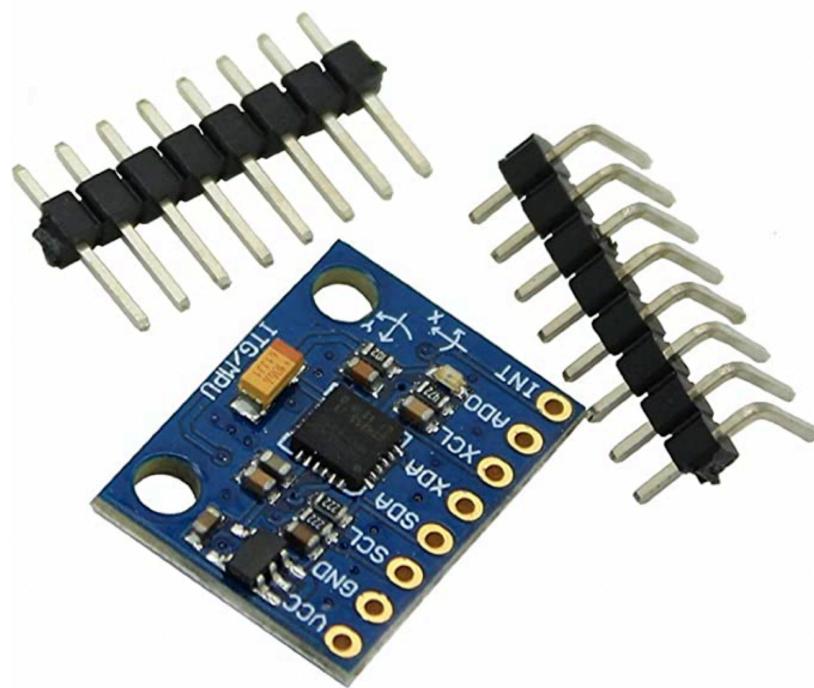
Smart band

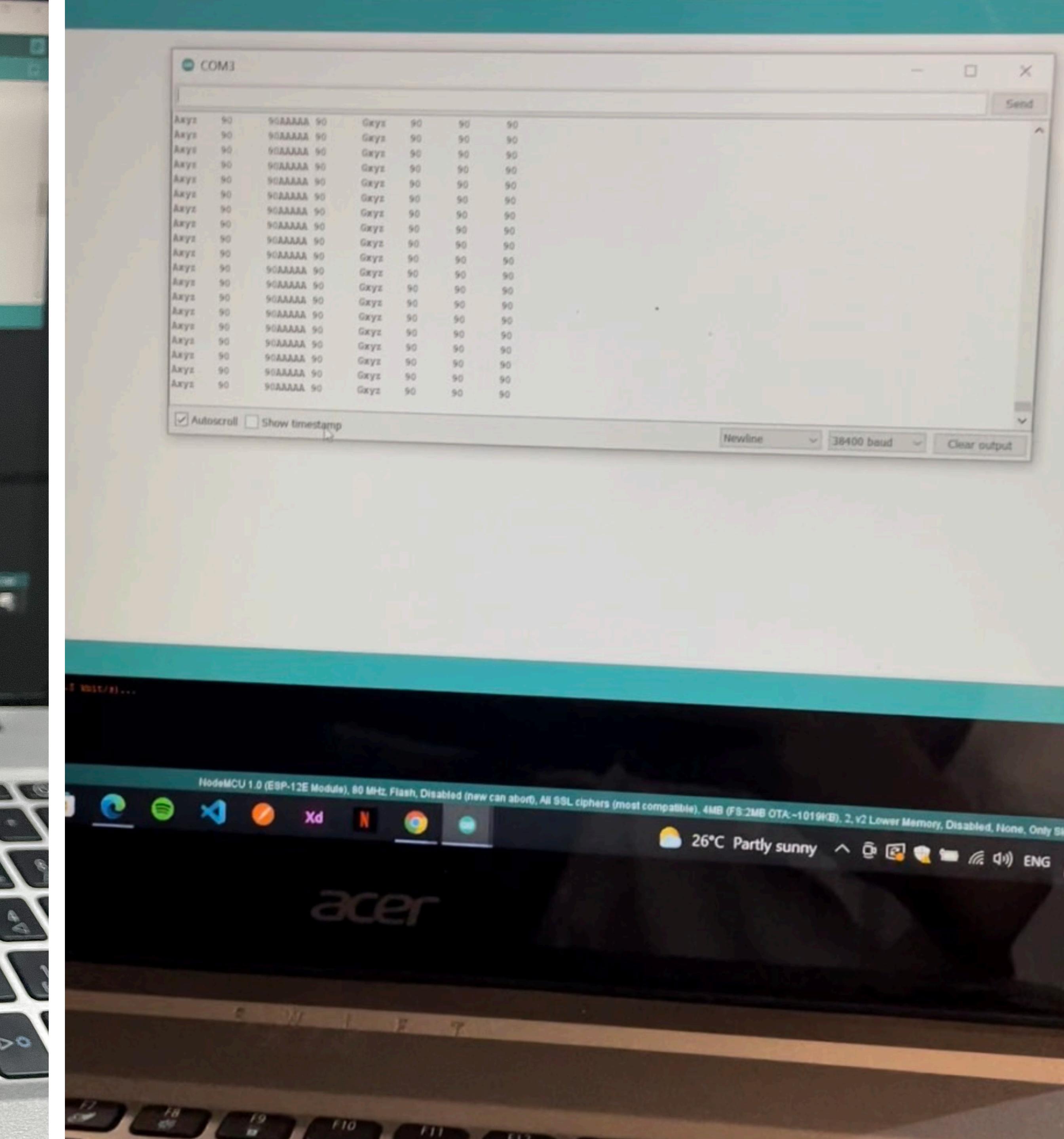
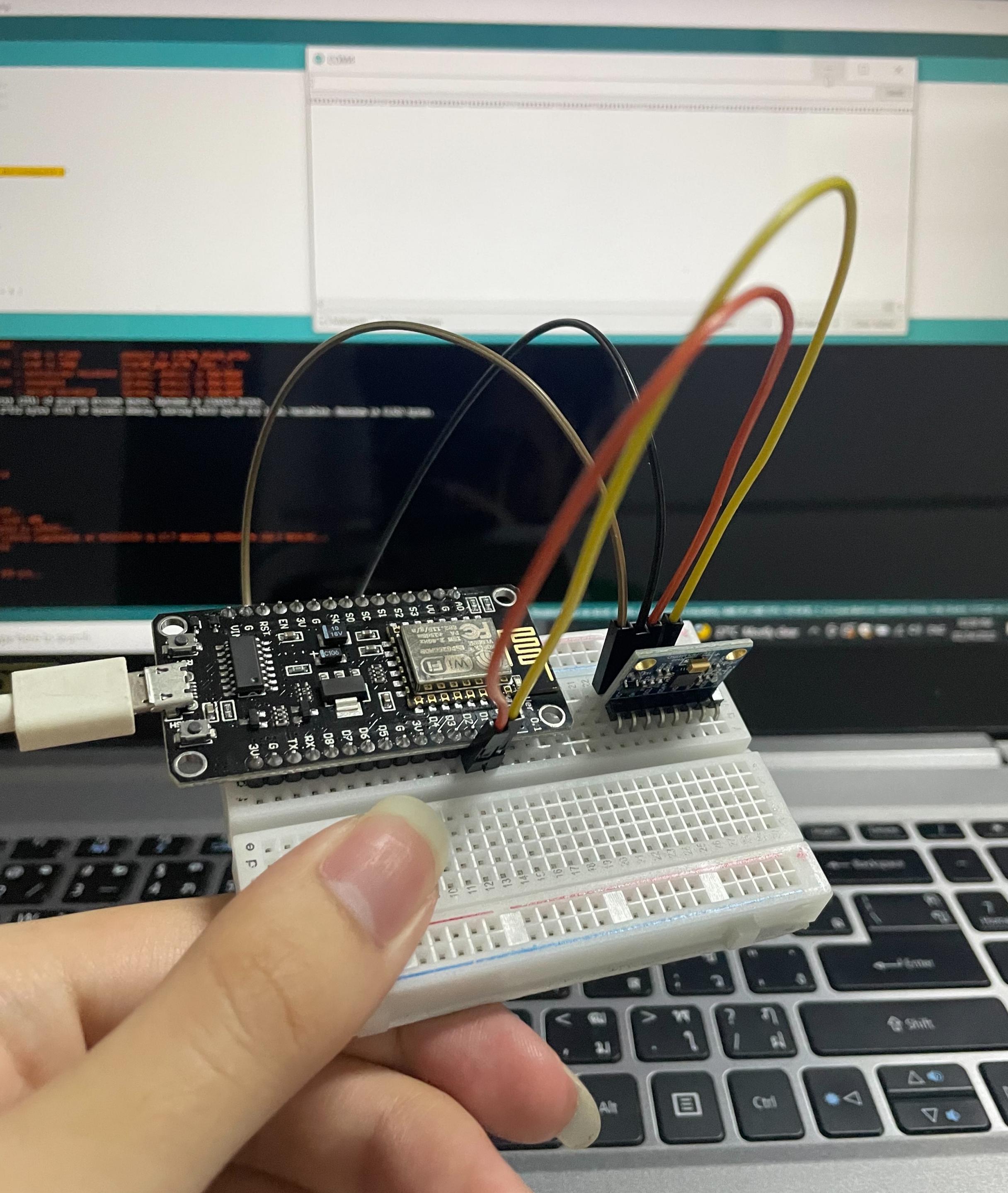
Term project

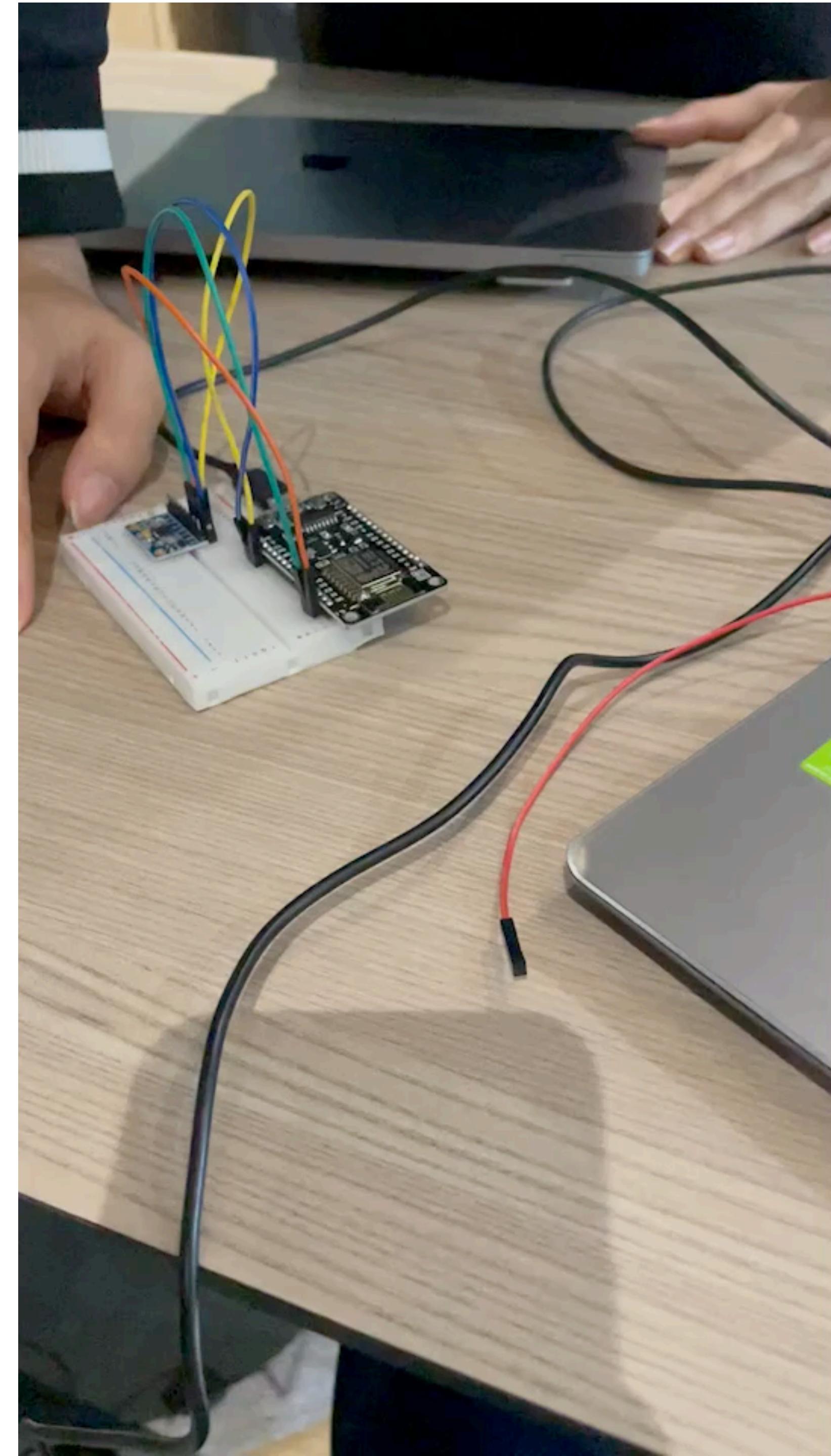
Krittamet Chuwongworaphinit 6111252
Jirapat Suwanjunee 6217410

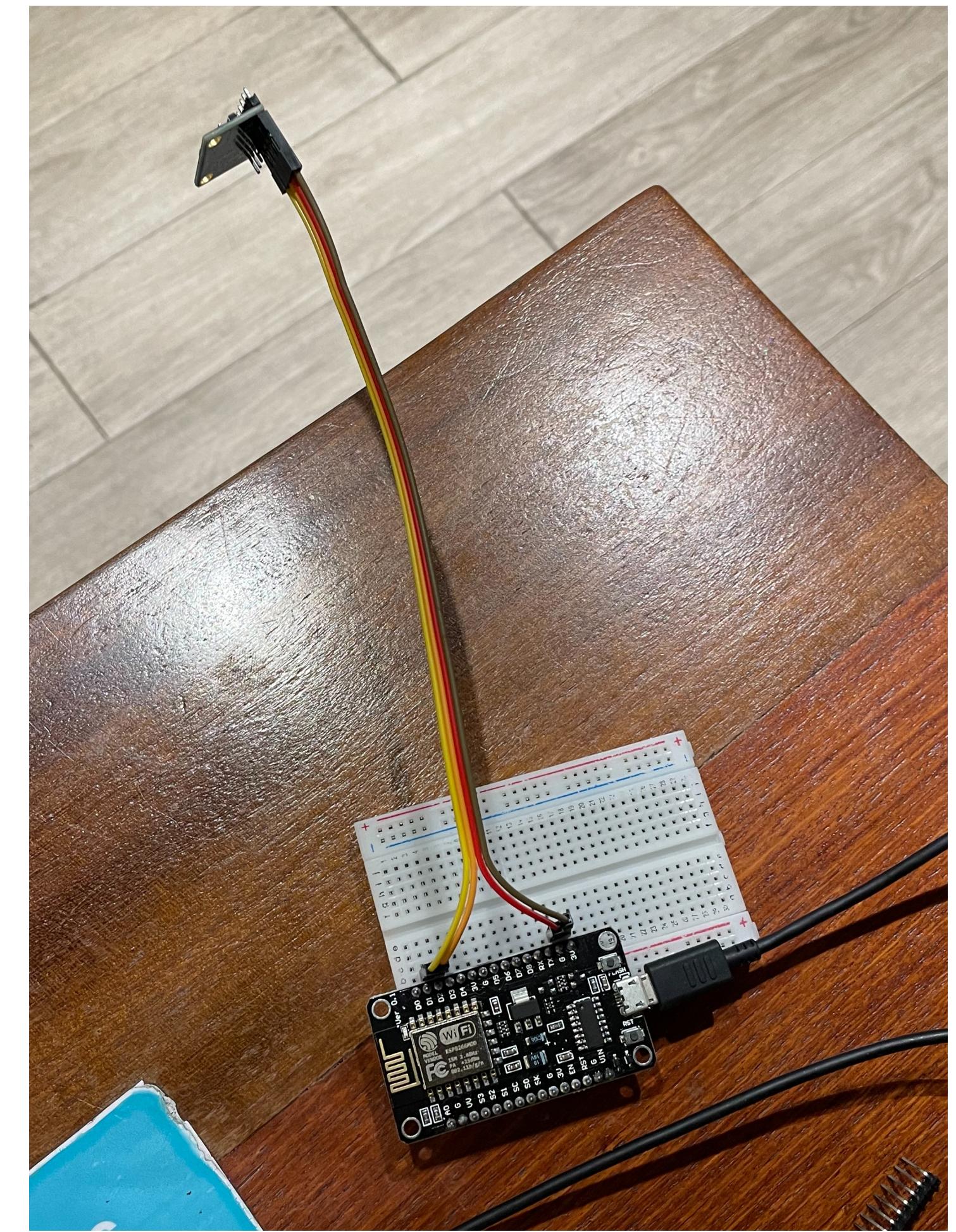
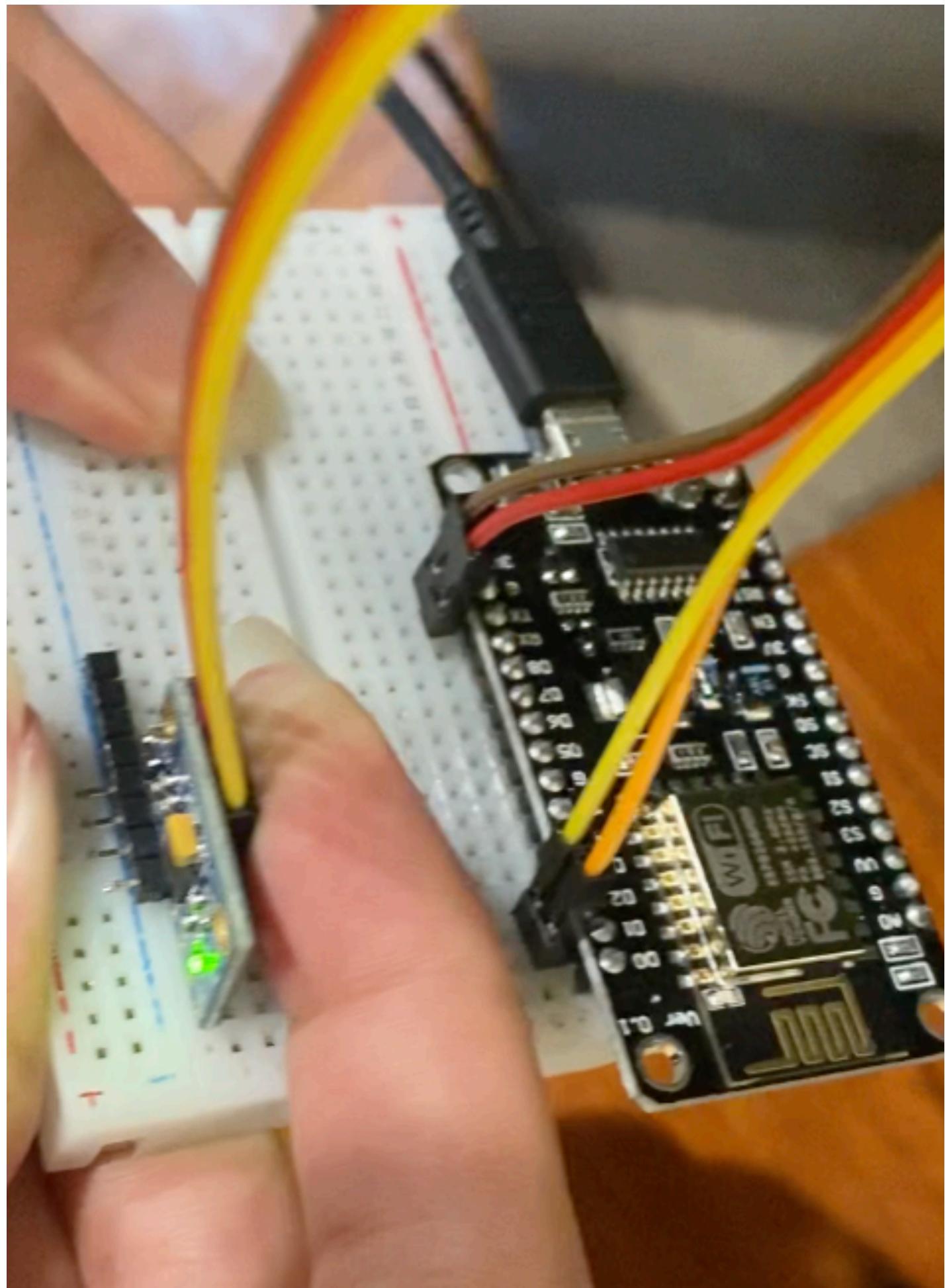
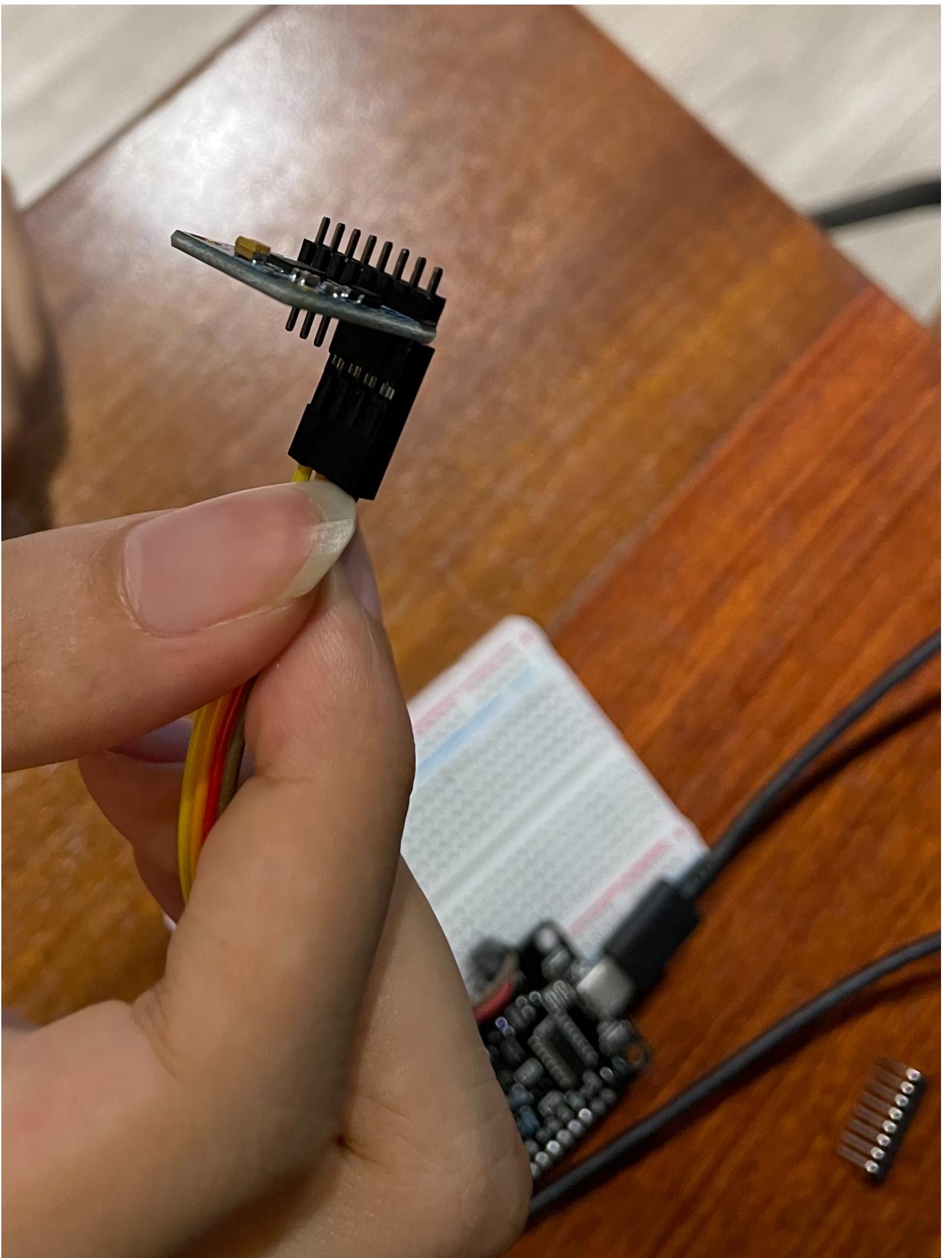
What's smart band?

Equipment



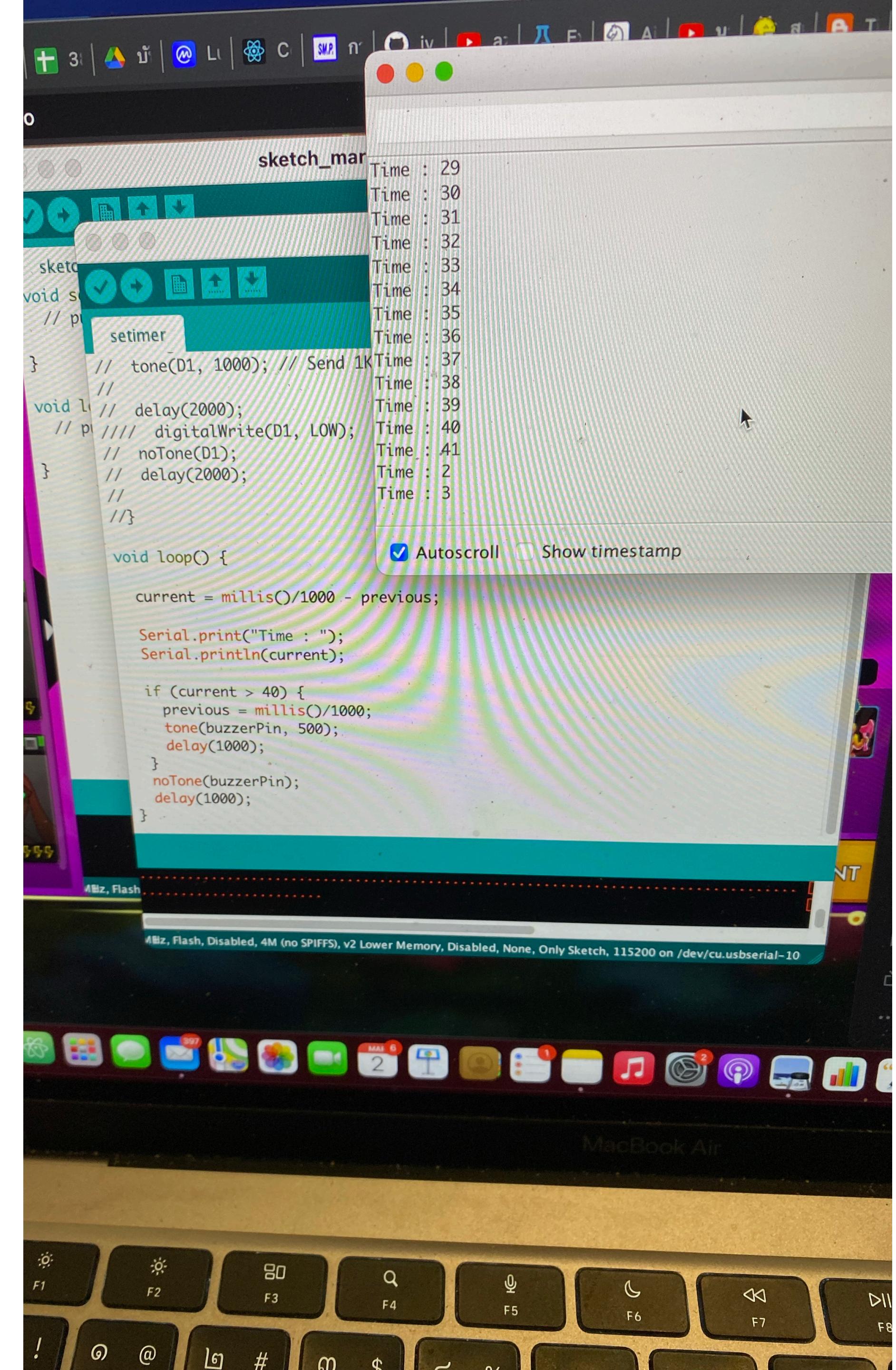
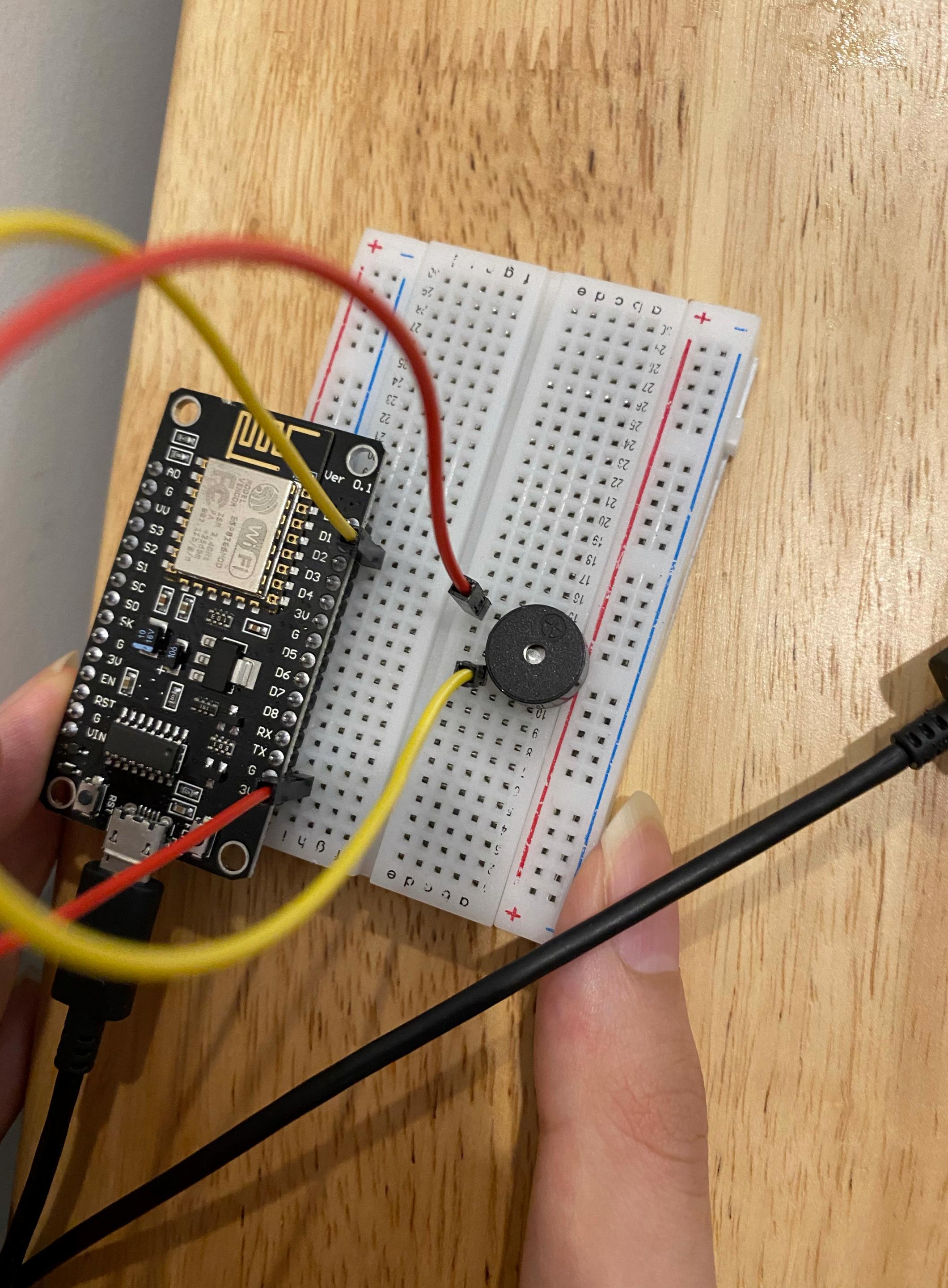


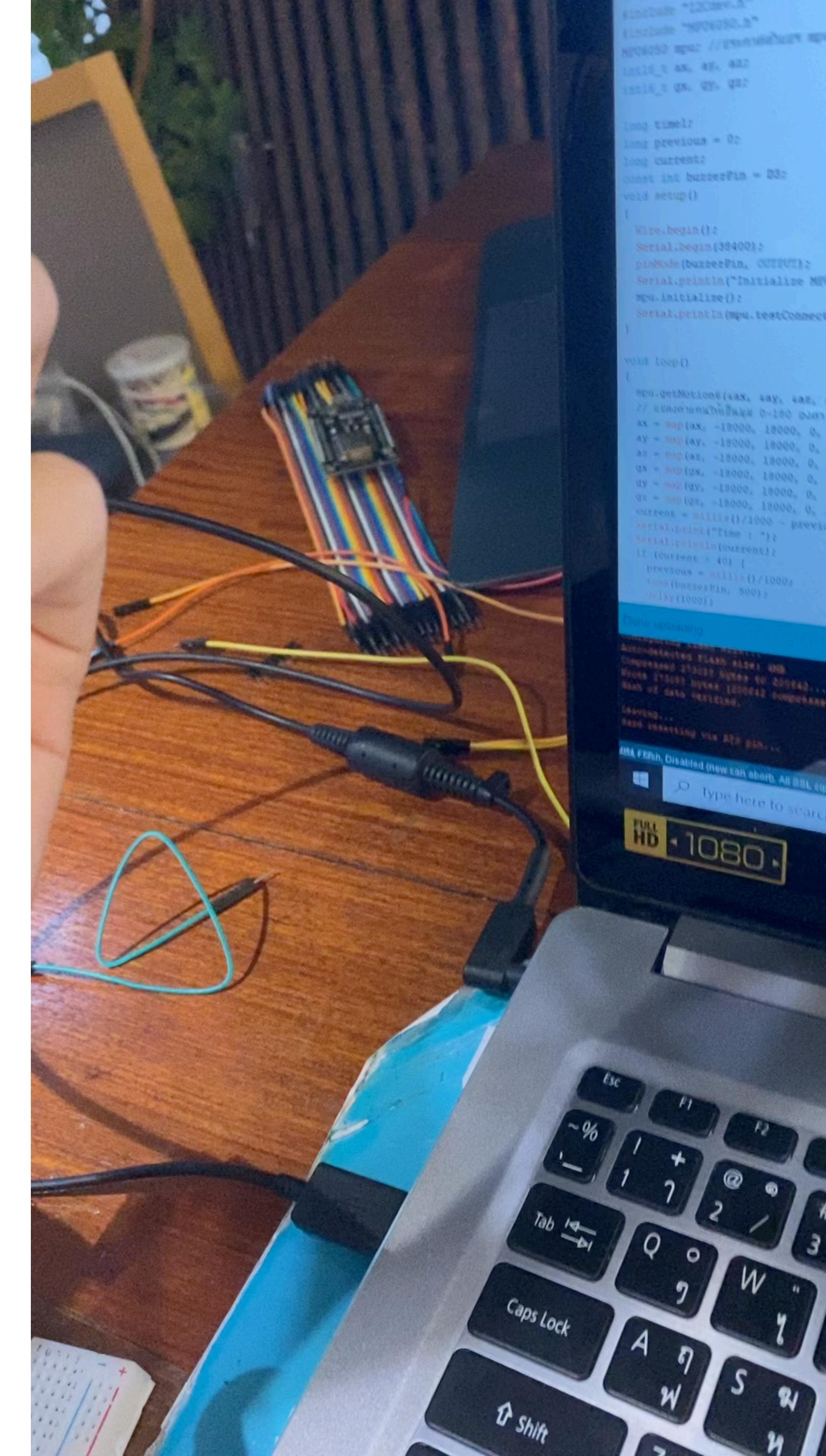
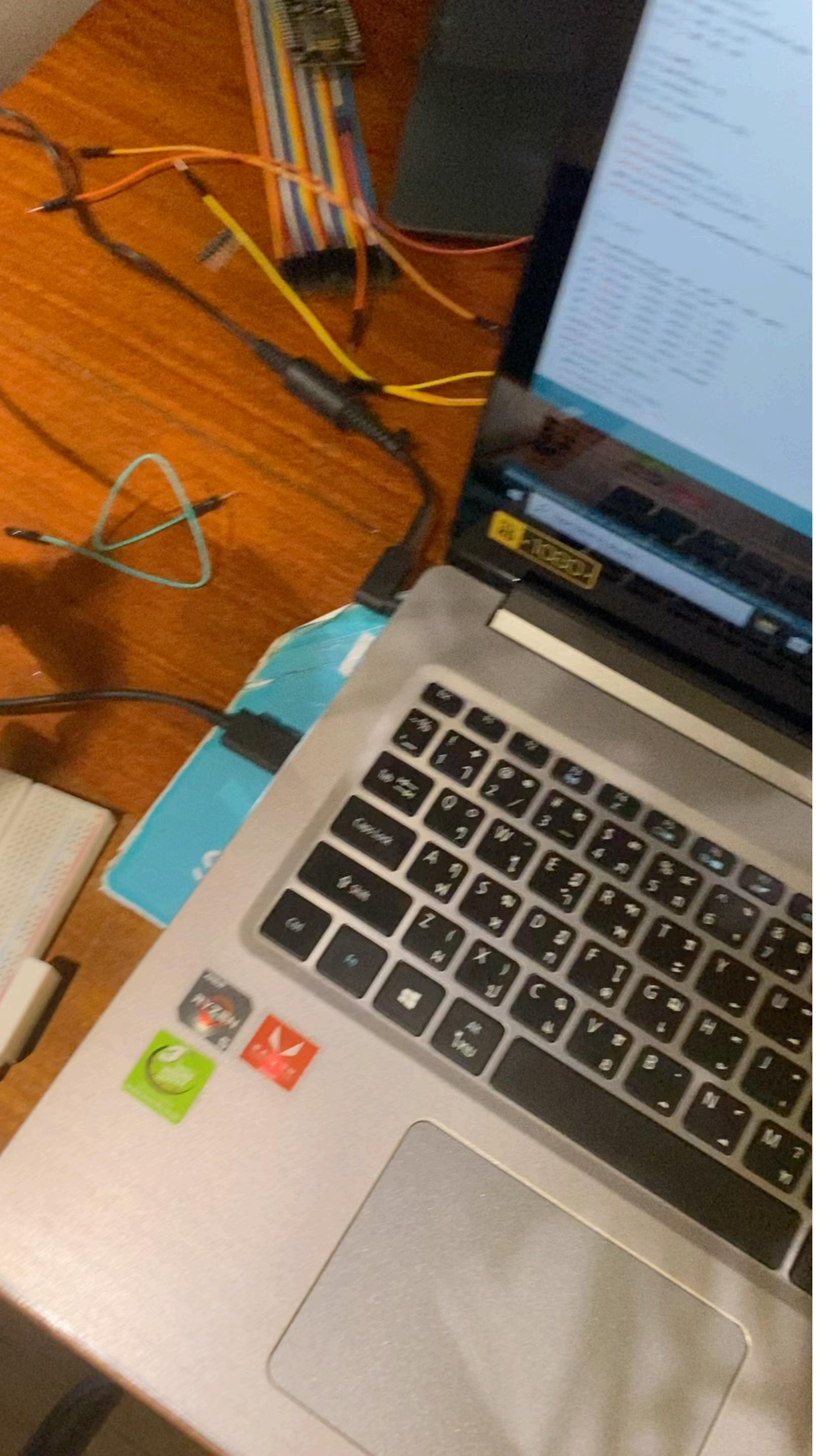




Buzzer and Timing







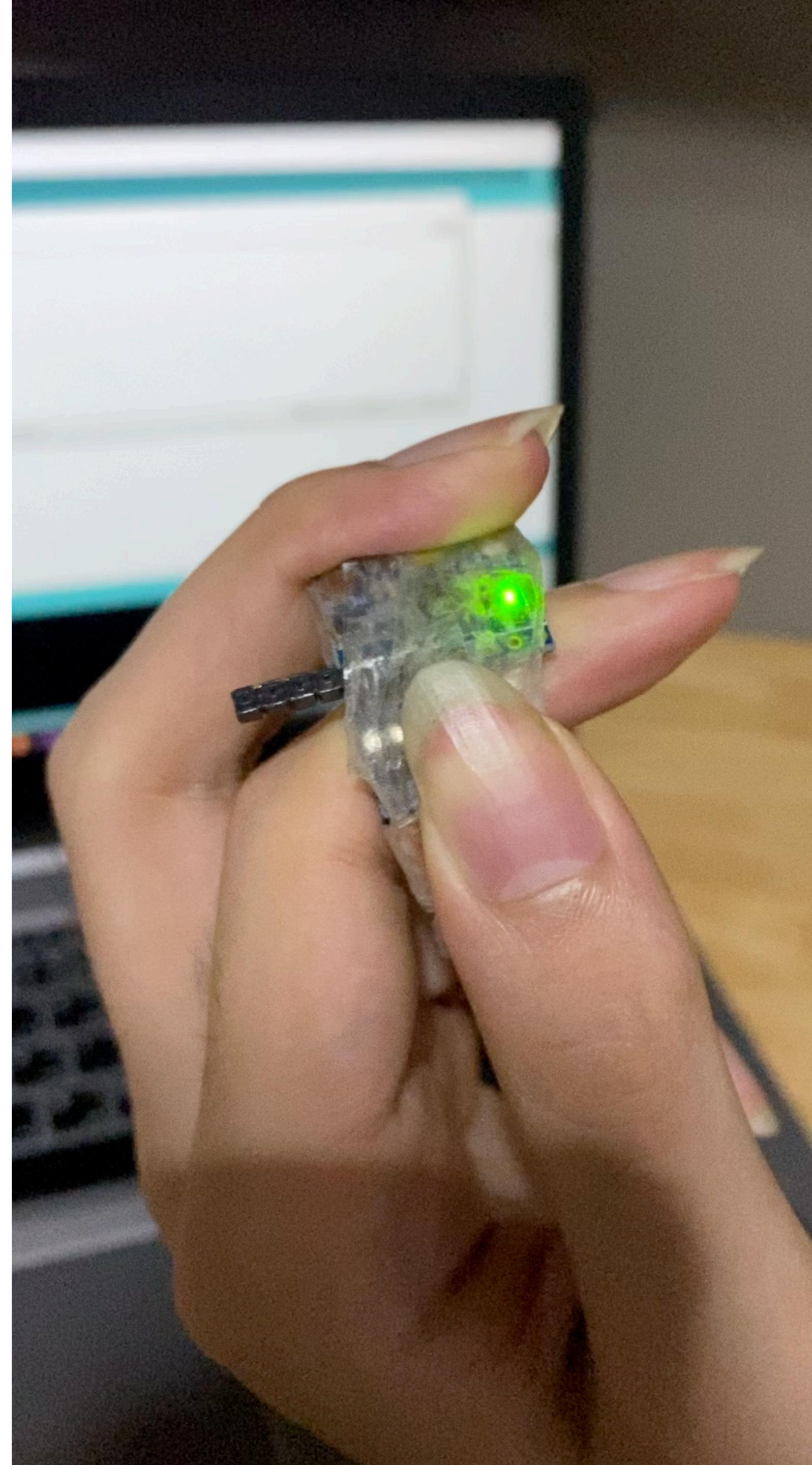
```
#include "MPU6050.h"
#include "MPU6050_Accel.h"
MPU6050 mpu; //our mpu6050 object
I2Cdev::I2Cdev(); //I2Cdev constructor
long time;
long previous = 0;
long current;
const int buzzerPin = 83;
void setup()
{
    Wire.begin();
    Serial.begin(38400);
    pinMode(buzzerPin, OUTPUT);
    Serial.println("Initialize MPU");
    mpu.initialize();
    Serial.println(mpu.testConnection);
}

void loop()
{
    mpu.getMotion(&ax, &ay, &az, &qx,
    // unaccelerated angle 0-180 deg
    ax = map(ax, -18000, 18000, 0, 180
    ay = map(ay, -18000, 18000, 0, 180
    az = map(az, -18000, 18000, 0, 180
    qx = map(qx, -18000, 18000, 0, 180
    qy = map(qy, -18000, 18000, 0, 180
    qz = map(qz, -18000, 18000, 0, 180
    current = millis() / 1000 - previous;
    Serial.print("Time : ");
    Serial.println(current);
    if (current > 40) {
        previous = millis() / 1000;
        tone(buzzerPin, 500);
        delay(1000);
    }
}
```

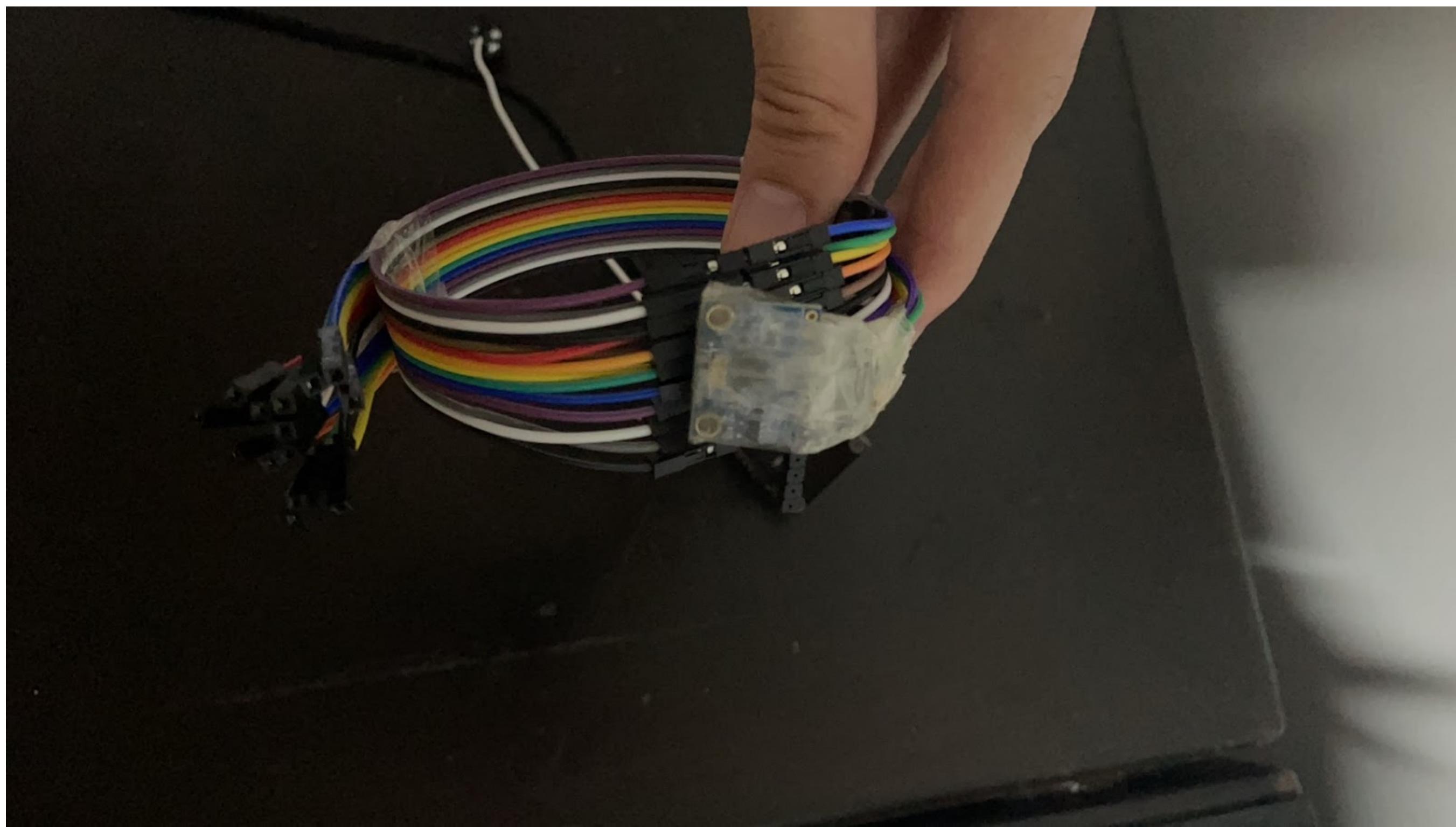
```
Code uploaded
Automatic flash saved and
compiling 27002 bytes to 250542...
Wrote 27002 bytes (250542) successfully
Size of data verified.
Cleaning...
Flash unmounting via /bin/rm...
ATA Flash: Disabled new ram shield. All RAM cipher

```

```
FULL HD 1080
```



Result and Implementation



Meeting in "General"

37:01



- □ ×

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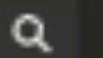
KRITTAMET CHUWONGWORAPHL...



Participants

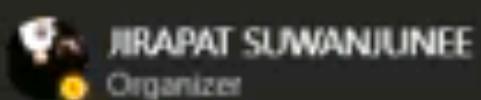


Type a name



+ In this meeting (2)

Mute all



JIRAPAT SUNNANIJUNEE

Organizer



KRITTAMET CHUWONGWORAP...

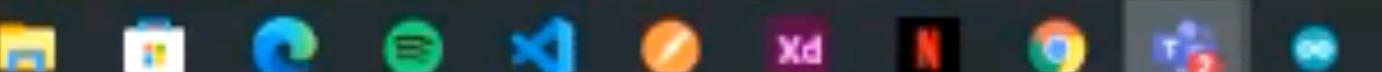
+ Suggestions (1)



CLEO POWELL



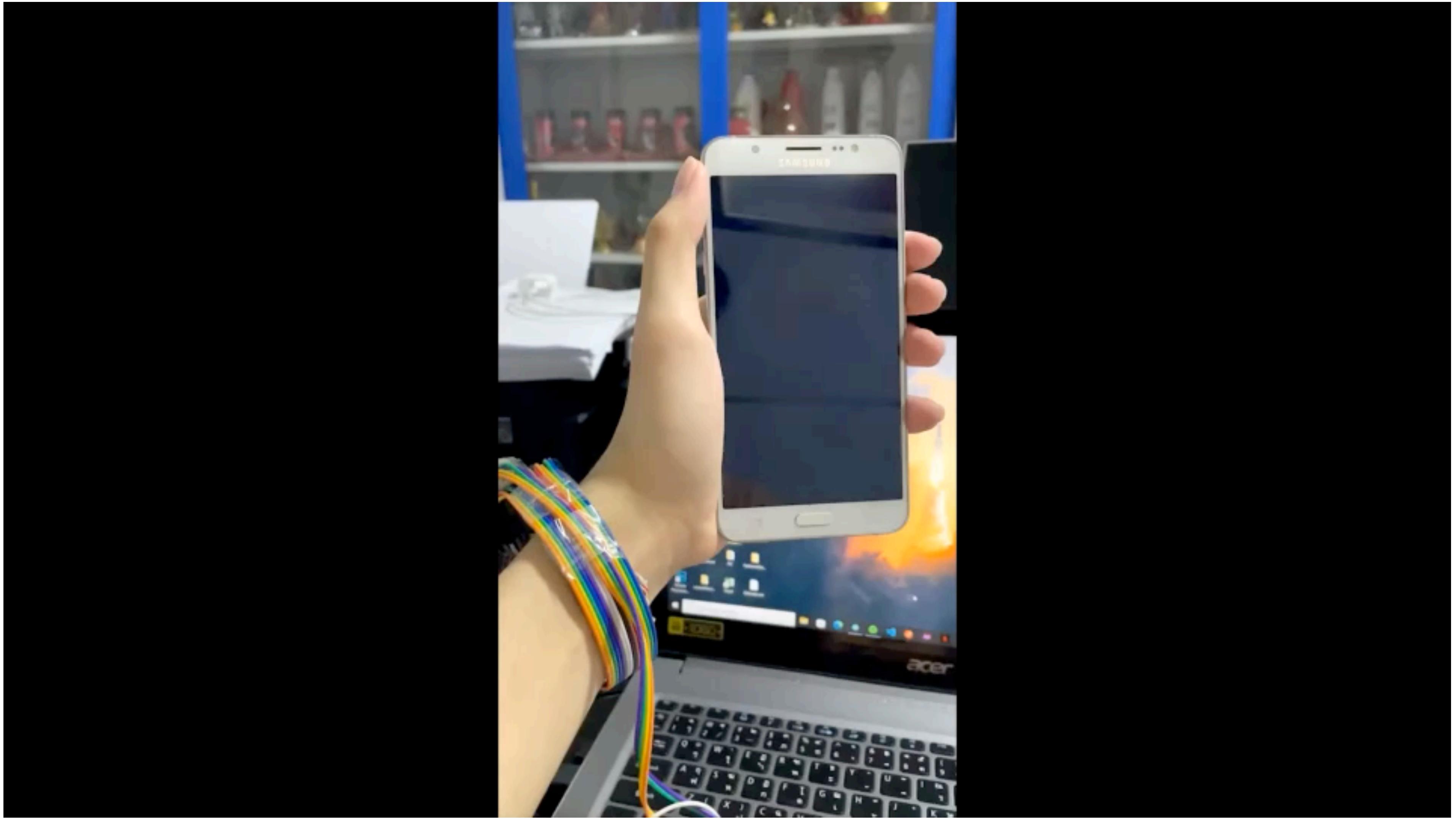
Type here to search



34°C Haze 4:35 PM 03/10/2022



KRITTAMET CHUWONGWORAPHLIN



```

24 void loop(){
25     mpu.getMotion6(&ax, &ay, &az, &gx, &gy, &gz);
26     ax = map(ax, -18000, 18000, 0, 180);
27     ay = map(ay, -18000, 18000, 0, 180);
28     az = map(az, -18000, 18000, 0, 180);
29     gx = map(gx, -18000, 18000, 0, 180);
30     gy = map(gy, -18000, 18000, 0, 180);
31     gz = map(gz, -18000, 18000, 0, 180);
32
33     axis = (ax + ay + az)/3;
34     Serial.print("axis");
35     Serial.println(axis);
36     if (axis > 110) {
37         current = millis()/1000 - previous;
38         Serial.print("current");
39         Serial.println(current);
40         if (current > 20) {
41             while (axis > 110) {
42                 mpu.getMotion6(&ax, &ay, &az, &gx, &gy, &gz);
43                 // แปลงค่าแกนให้เป็นมุม 0-180 องศา
44                 ax = map(ax, -18000, 18000, 0, 180);
45                 ay = map(ay, -18000, 18000, 0, 180);
46                 az = map(az, -18000, 18000, 0, 180);
47                 gx = map(gx, -18000, 18000, 0, 180);
48                 gy = map(gy, -18000, 18000, 0, 180);
49                 gz = map(gz, -18000, 18000, 0, 180);
50                 previous = millis()/1000;
51                 Serial.print("peep peep");
52                 tone(buzzerPin, 500);
53                 axis = (ax + ay + az)/3;
54                 Serial.print(axis);
55                 delay(1000);
56             }
57         }
58     } else {
59         previous = millis()/1000;
60         Serial.println("my");
61     }
62     noTone(buzzerPin);
63     delay(50);
64 }

```

What are we missing in this project?

Get the input data from
mobile to set the time.



Make Arduino stand alone with Battery





Thank you

ANY QUESTIONS??

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