

Code parsing

```
const int trigPin = 2;
const int echoPin = 3;
const int distanceThreshold = 10;

void setup() {
    // Initialize the serial communication at a baud rate of 9600
    Serial.begin(9600);

    // Set the trigPin as an output and echoPin as an input
    pinMode(trigPin, OUTPUT);
    pinMode(echoPin, INPUT);
}

void loop() {
    long duration;
    long distance;

    // Send a trigger signal
    digitalWrite(trigPin, LOW);
    delayMicroseconds(2);
    digitalWrite(trigPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(trigPin, LOW);

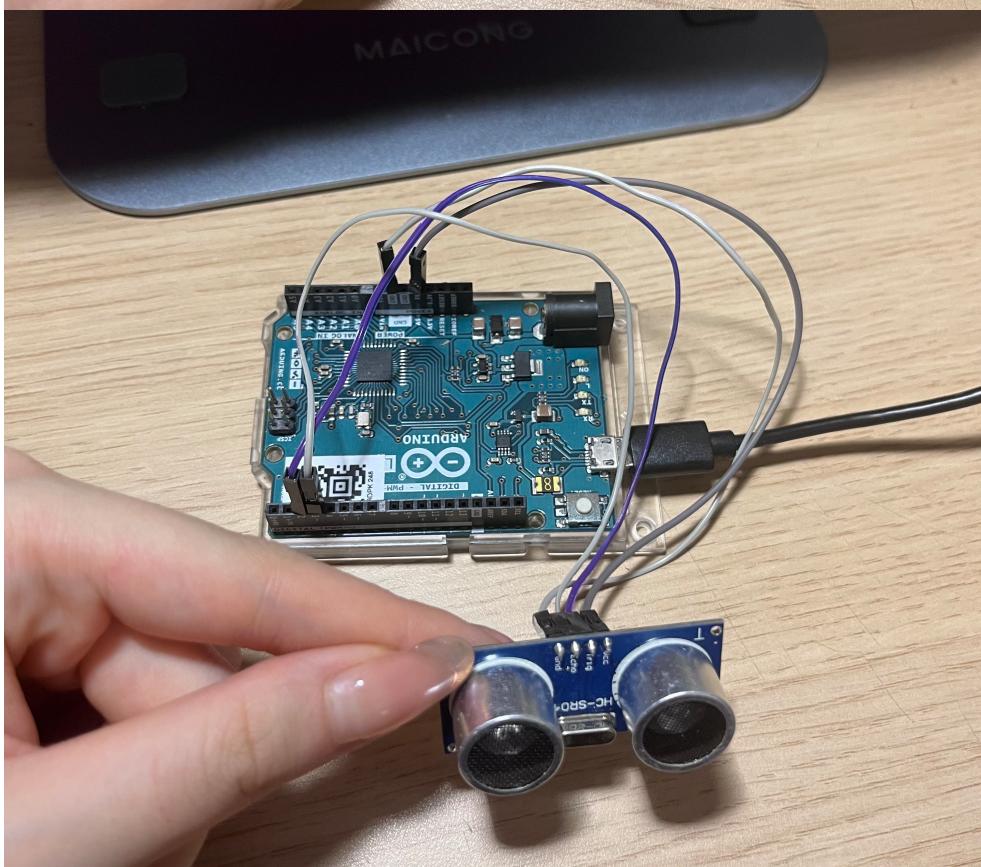
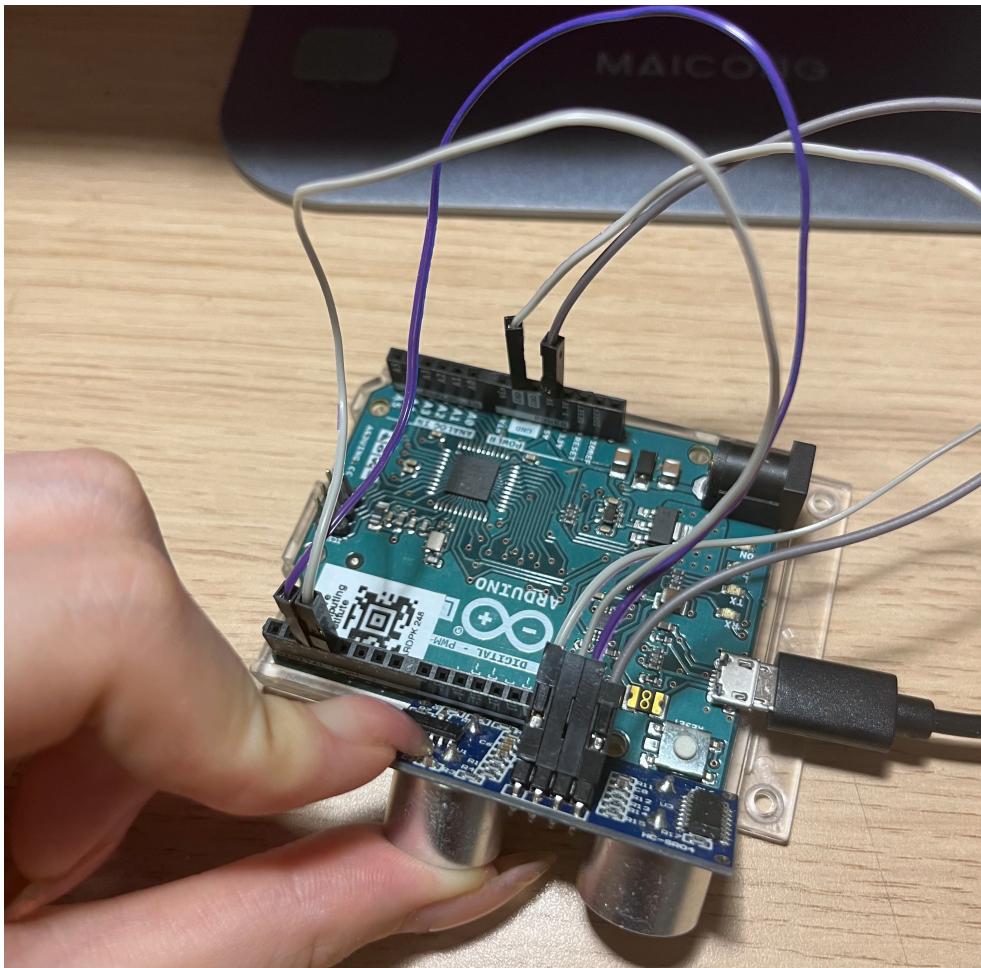
    // Measure the duration of the echo signal
    duration = pulseIn(echoPin, HIGH);

    // Calculate the distance in centimeters based on the duration
    distance = duration * 0.034 / 2;

    // Check if the distance is less than the defined threshold
    if (distance < distanceThreshold) {
        // Send a signal of 1 indicating an object is within the threshold distance
        Serial.println(1);
    } else {
        // Send a signal of 0 indicating no object is within the threshold distance
        Serial.println(0);
    }

    // Delay for 100 milliseconds before taking the next measurement
    delay(100);
}
```

Arduino board sublink diagram



Sensor rendering



