Assignment - 4

Write code and connections in wokwi for ultrasonic. Whenever distance is less than 100 cm's send "alert"to IBM cloud and display in device recent.

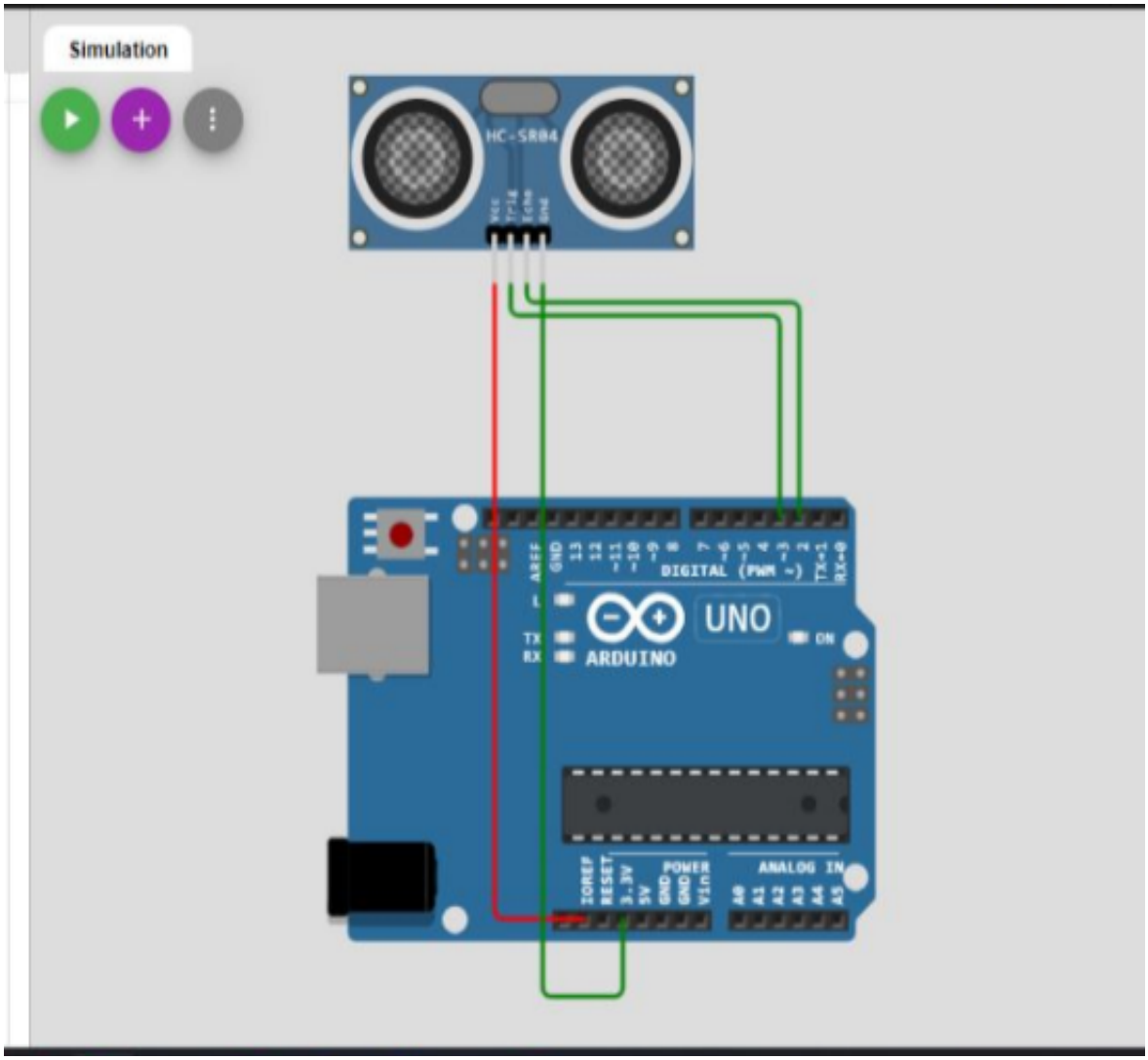
PROGRAM:

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization =”m040km”
#define deviceType=” Arduino”
#define deviceId =”12345”
#define authMethod ="use-token-auth"
#define authToken =”2YvKHr)ujgdHS7y?dM”
void setup() {
// put your setup code here, to run once:
Serial.begin(9600);
pinMode(TRIG_PIN,OUTPUT);
pinMode(ECHO_PIN, INPUT);
}
float readDistanceCM() {
digitalWrite(TRIG_PIN, LOW);
delayMicroseconds(2);
digitalWrite(TRIG_PIN, HIGH);
delayMicroseconds(10);
digitalWrite(TRIG_PIN, LOW);
int duration = pulseIn(ECHO_PIN, HIGH);
return duration * 0.034 / 2;
}
void loop() {
// put your main code here, to run repeatedly:
float distance = readDistanceCM();
if(distance <= 100)
{
Serial.println("person detected ");
}
else{
Serial.print("Measured distance: ");
Serial.println(readDistanceCM());
}
```

```
delay(1000);
}
```

Wokwi Project Link: https://wokwi.com/projects/347409837693338195

Aurdino Uno:



sketch.ino | diagram.json | Library Manager

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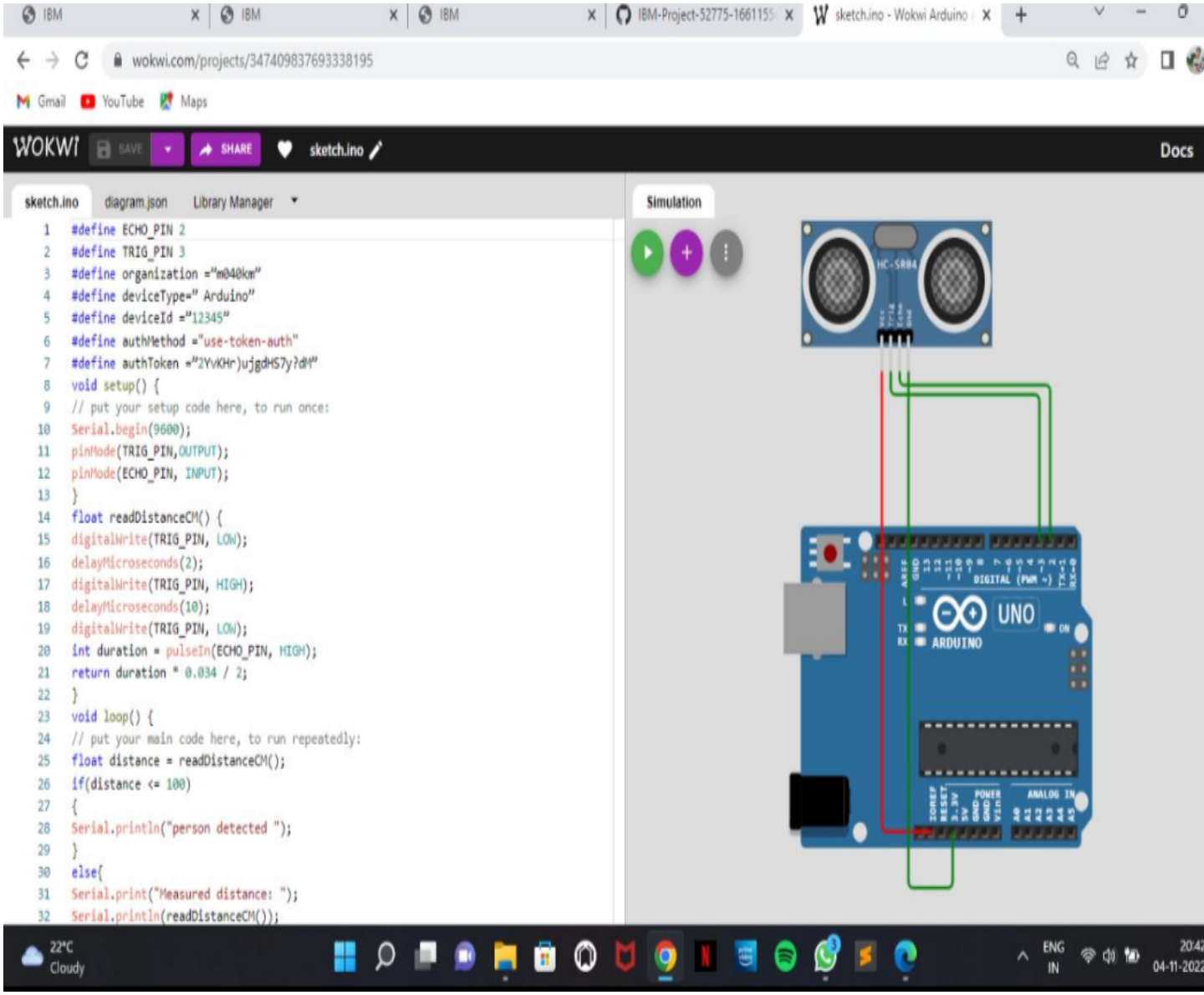
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diagram.json
Library Manager
Simulation
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