

**ASSIGNMENT-4**  
**SUBMITTED BY**  
**VIMALAN S S**

<b>Assignment Date</b>	<b>26 October 2022</b>
<b>Team ID</b>	<b>PNT2022TMID04760</b>
<b>Project Name</b>	<b>Industry-specific intelligent fire management system</b>
<b>Maximum Marks</b>	<b>2 Marks</b>

**Write code and connections in wokwi for ultrasonic. Whenever distance is less than 100 cms send “alert” to ibm cloud and display in device recent events.**

**Solution:**

```
#define ECHO_PIN 2

#define TRIG_PIN 3

#define organization = "mmbh4c"

#define deviceType = "Ultrasonic"

#define deviceId = "1112"

#define authMethod = "use-token-auth"

#define authToken = "123456789"


void setup() {

    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() {

    float distance = readDistanceCM();

    if(distance <= 100)

    {

        Serial.println("person detected ");

    }

    else{

        Serial.print("Measured distance: ");

        Serial.println(readDistanceCM());

    }

    delay(100);

}
```

