

ASSIGNMENT-4
SUBMITTED BY
AARTISHA. S

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|------------------------|---|
| Assignment Date | 26 October 2022 |
| Team ID | PNT2022TMID15087 |
| Project Name | GAS LEAKAGE MONITORING SYSTEM AND ALERTING SYSTEM FOR INDUSTRIES |
| Maximum Marks | 2 Marks |

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);

}
```

```
    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{

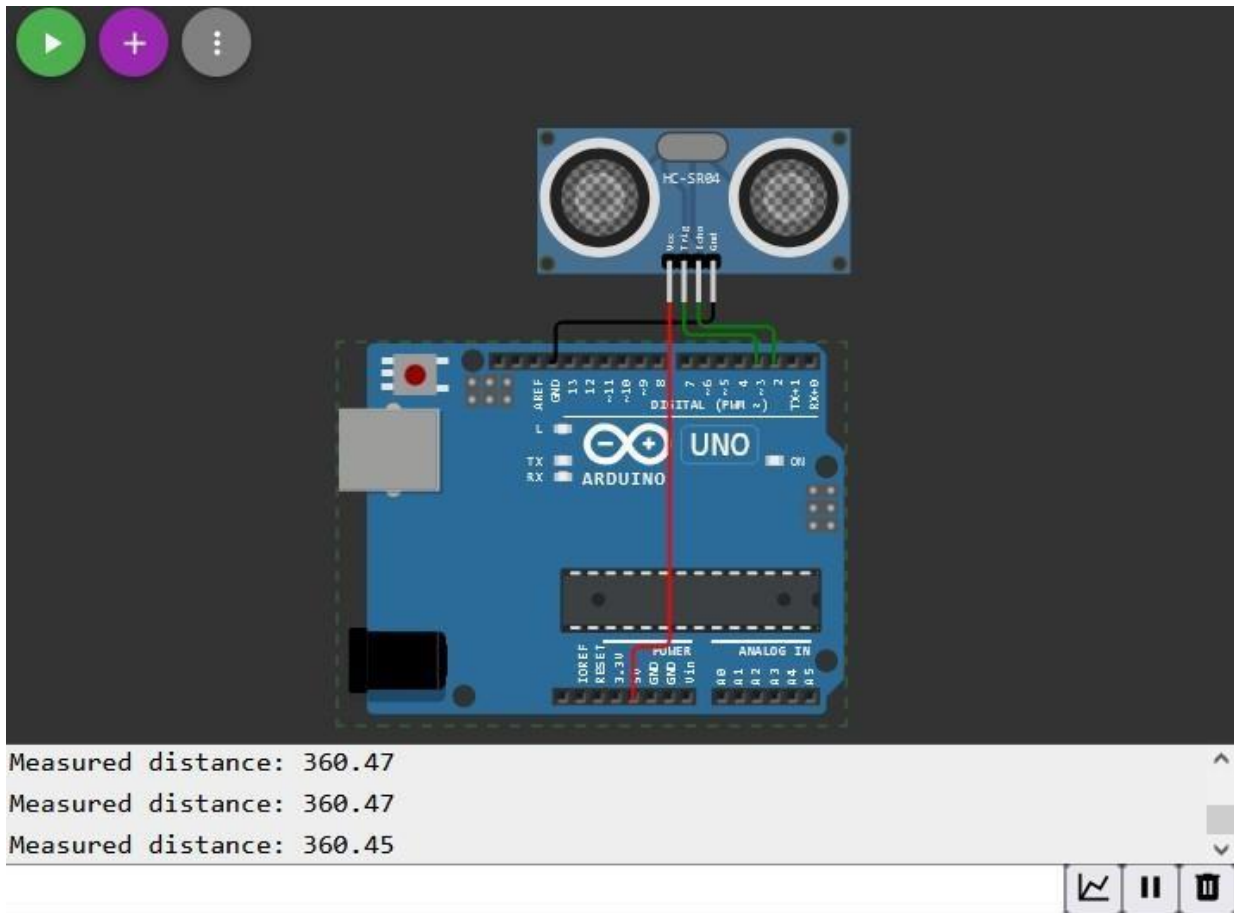
        Serial.print("Measured distance: ");

        Serial.println(readDistanceCM());

    }

    delay(100);

}
```



IBM Cloud

Device Recent Events

| Identity | Device Information | Recent Events | State | Logs | X |
|--|------------------------------|---------------|-------------------|------|---|
| The recent events listed show the live stream of data that is coming and going from this device. | | | | | |
| Event | Value | Format | Last Received | | |
| event_1 | {"status":"Person Detected"} | json | a few seconds ago | | |
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