

ASSIGNMENT-4
SUBMITTED BY
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Assignment Date	26 October 2022
Team ID	PNT2022TMID15035
Project Name	Industry-specific intelligent fire management system
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);

}

float readDistanceCM() {
```

```
    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{

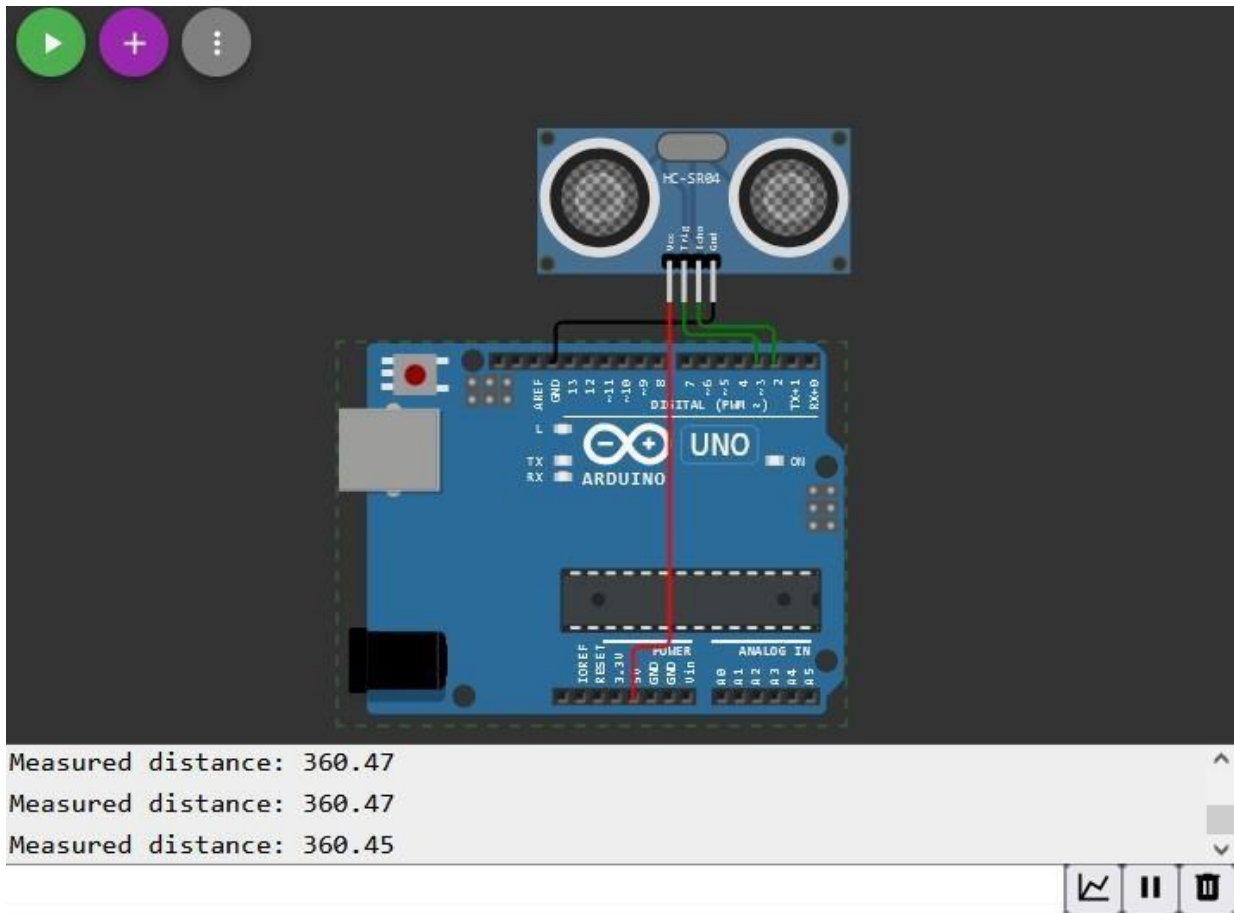
        Serial.print("Measured distance: ");

        Serial.println(readDistanceCM());

    }

    delay(100);

}
```



```
Measured distance: 360.47
Measured distance: 360.47
Measured distance: 360.45
```

IBM Cloud

Device Recent Events

IdentityDevice InformationRecent EventsStateLogs

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
event_1	{"status":"Person Detected"}	json	a few seconds ago
event_1	{"status":"Person Detected"}	json	a few seconds ago
event_1	{"status":"Person Detected"}	json	a few seconds ago

1 Simulation running