

ASSIGNMENT 4

ANITHA K

| | |
|----------------|---|
| AssignmentDate | 26October 2022 |
| Team ID | PNT2022TMID15087 |
| Project Name | Gas Leakage monitoring & Alerting system for Industries |
| MaximumMarks | 2Marks |

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,INP

IT).

float readDistanceCM(){

digitalWrite(TRIG_PIN,LOW);
```



```

    delayMicroseconds(2);digitalWrite(TRIG_PIN,
    HIGH);delayMicroseconds(10);digitalWrite(TRIG_PIN,LOW);
    intduration=pulseIn(ECHO_PIN,HIGH);
    returnduration*0.034/2;
}

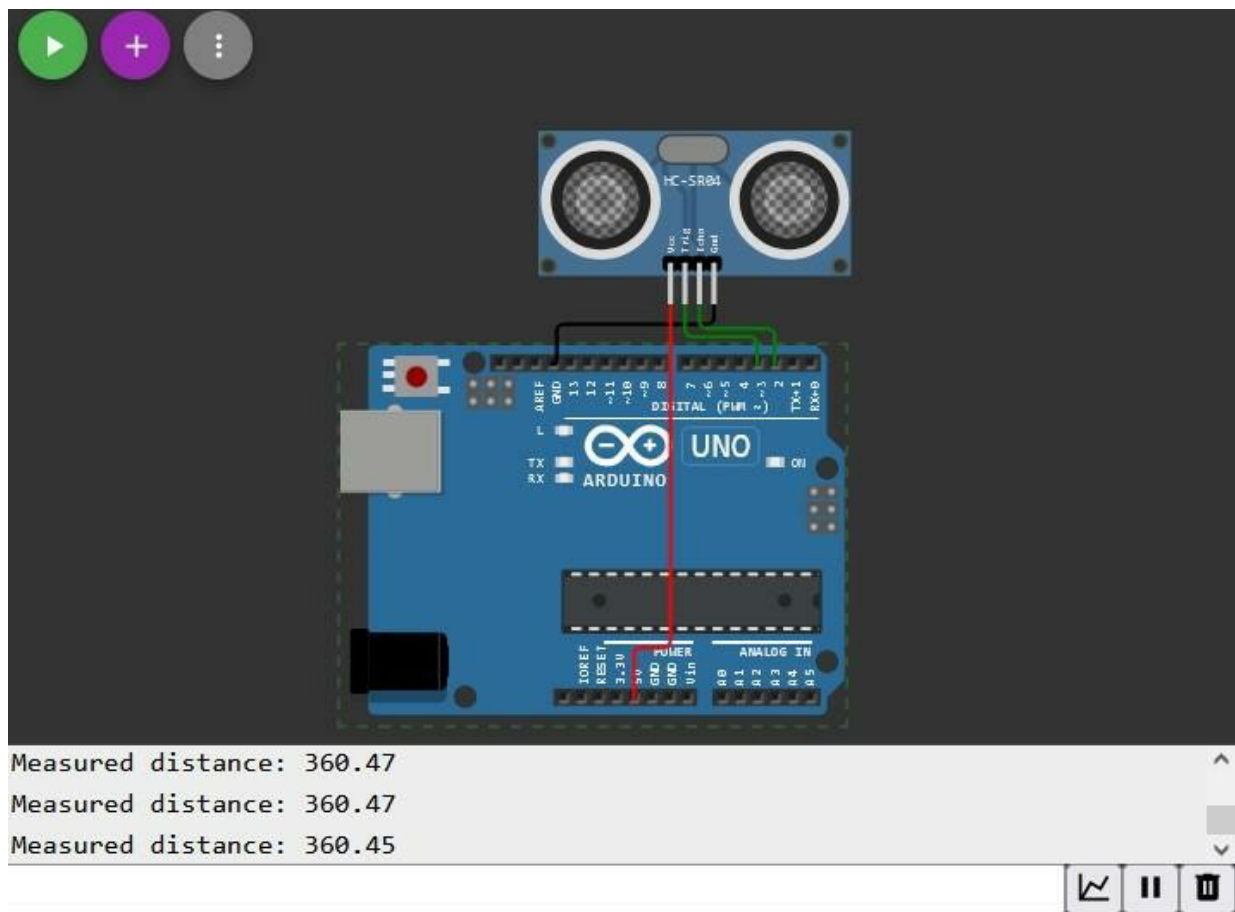
```

```

voidloop(){
    float distance =
    readDistanceCM();if(distance<=100)
    {
        Serial.println("persondetected");
    }
    else{
        Serial.print("Measureddistance:");
        Serial.println(readDistanceCM());
    }
    delay(100);
}

```





IBMCloud DeviceRecentEvents

10K12001

Browse Action Device Types Interfaces Add Device +

▼ Ultrasonic_1 Connected Ultrasonic Device Oct 26, 2022 7:54 PM → ...

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 |
| 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

