

ASSIGNMENT - 4

CODE :-

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = " rxswes"
#define device type ="ultrasonic"
#define deviceId="2710"
#define authmethod="token"
#define authToken="123456789"
void setup() {
  Serial.begin(115200);
  pinMode(LED_BUILTIN, OUTPUT);
  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(1000);
}
```

WOKWI LINK :-

<https://wokwi.com/projects/346853377517290068>

IBM CLOUD:

The screenshot displays the IBM Watson IoT Platform interface. On the left, a sidebar contains navigation icons. The main panel shows a table of devices with columns for Device ID, Status, and Device Type. The device with ID 2710 is highlighted, showing details: Device ID 2710, Device Type ultrasonic, Date Added Oct 28, 2022 10:41 PM, Added By 613519106050@smartinternz.com, and Connection Status Disconnected. On the right, a modal window titled 'Device Type: ultrasonic' is open, showing the 'Events' configuration. It includes a 'New event type' button, a 'Send' button, and a 'Schedule' dropdown set to 'Every Minute'. The 'Payload' section shows a JSON object:

```
{ 0: { 1: { "distance": random(27, 100) 2: } 3: }
```

. An 'Upload a CSV file' button is at the bottom.

| Device ID | Status | Device Type |
|-----------|--------------|-------------|
| 2710 | Disconnected | ultrasonic |

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The screenshot shows the IBM Watson IoT Platform interface with a line chart for the 'distance' metric. The chart has a y-axis from 0 to 80 and an x-axis with timestamps 22:59, 23:00, 23:01, 23:02, and 23:03. A purple line represents the 'distance' data, showing a downward trend from approximately 80 at 23:01 to 40 at 23:03. A '5 minutes' dropdown is at the bottom left, and a 'now' button is at the bottom right. On the right, the same 'Device Type: ultrasonic' modal window is open, showing the 'Events' configuration with the 'Payload' section displaying the JSON object:

```
{ 0: { 1: { "distance": random(27, 100) 2: } 3: }
```

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WOKWI SIMULATION :-

[illegible]