

Date	13 NOVEMBER 2022
Team ID	PNT2022TMID14603
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

Code:

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "md8rdq"
#define deviceType = "123"
#define deviceId = "123456"
#define authMethod = "token"
#define authToken = "Titik@2002"

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);
}

```

The screenshot shows the IBM Watson IoT Platform interface. On the left, a sidebar contains navigation icons. The main panel is titled 'Device Type: 123' and has tabs for 'Browse', 'Action', 'Device Types', and 'Interfaces'. The 'Browse' tab is active, displaying a table of devices. The table has columns for 'Device ID', 'Status', and 'Device Type'. One device is listed with ID '123456', status 'Disconnected', and type '123'. Below the table, there are tabs for 'Identity', 'Device Information', and 'Recent Events'. The 'Recent Events' tab is selected, showing a list of events with columns 'Event' and 'Value'. Two events are listed: 'event_1' with value '{"randomNumber":92,"distance":11}' and 'event_1' with value '{"randomNumber":45,"distance":56}'. On the right, a configuration panel for 'Device Type: 123' is open. It has a 'Send' button and a 'Device Type' dropdown set to '123'. Below, there is a 'Schedule' section with a dropdown set to 'Every Minute'. The 'Payload' section contains a JSON editor with the following content:

```

{
  "randomNumber": random(0, 100),
  "distance": random(0, 150)
}

```

There is an 'Upload a CSV file' button and a link 'What functions can I apply?' at the bottom right of the panel.

This screenshot shows the same IBM Watson IoT Platform interface, but with a different view of the device information. The 'Device Type: 123' configuration panel is still open on the right, showing the same 'Schedule' and 'Payload' settings. On the left, the 'Device Information' tab is selected, displaying a table with the following data:

Device ID	123456
Device Type	123
Date Added	Nov 1, 2022 3:43 PM
Added By	titiksha.ec19@bitsathy.ac.in
Connection Status	Disconnected

The 'Recent Events' tab is also visible, showing the same list of events as in the first screenshot.

