

Question:

Write code and connection in wokwi for ultrasonic sensor
when ever distance less than 100 cms send alert to ibm cloud and display
in device recent events upload document with wokwi share link and image
of ibm cloud

Program:

```
#define ECHO_PIN 2
#define TRIG_PIN 3

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();

  bool isNearby = distance < 100;
  digitalWrite(LED_BUILTIN, isNearby);

  Serial.print("Measured distance: ");
  Serial.println(readDistanceCM());
```


```

13 void setup() {
14   Serial.begin(9600);
15   pinMode(TRIG_PIN, OUTPUT);
16   pinMode(ECHO_PIN, INPUT);
17 }
18
19 float readDistance() {
20   digitalWrite(TRIG_PIN, LOW);
21   delayMicroseconds(2);
22   digitalWrite(TRIG_PIN, HIGH);
23   delayMicroseconds(10);
24   digitalWrite(TRIG_PIN, LOW);
25   long duration = pulseIn(ECHO_PIN, HIGH);
26   return duration * 0.034 / 2;
27 }
28
29 void loop() {
30   float distance = readDistance();
31
32   Serial.println(distance < 100);
33   digitalWrite(LED_BUILTIN, !distance);
34
35   Serial.print("Measured distance: ");
36   Serial.println(readDistance());
37
38   delay(100);
39 }
40

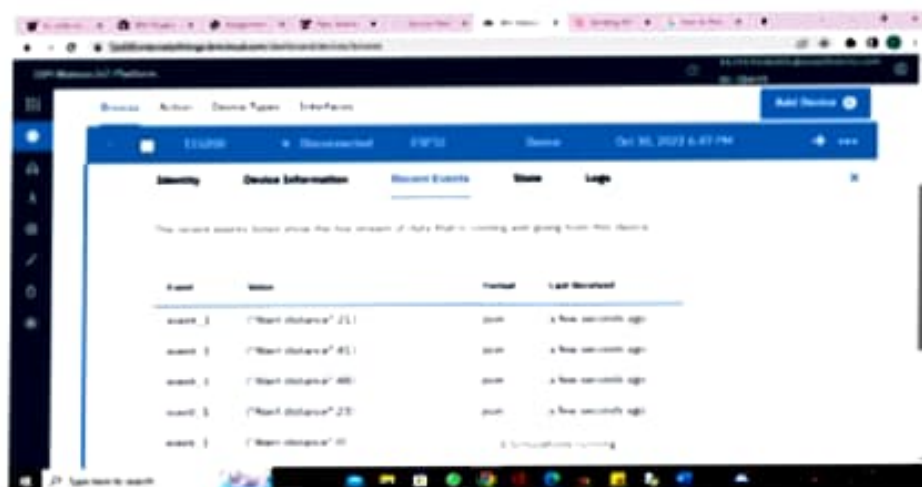
```

Simulation

Editing Ultrasonic Sensor
Distance: 0mm



Measured distance: 91.66
 Measured distance: 91.77
 Measured distance: 91.77
 Measured distance: 91.66
 Measured distance: 91.77
 Measured distance: 91.66
 Measured distance: 91.77



Link:

<https://wokwi.com/projects/290056311044833800>