

Assignment-4

TEAM ID	PNT2022TMID52163
NAME	Smilin Blessy.W
REG NO	962919104014

Write code and Connection in wokwi for ultrasonic sensor whenever distance is less than 100 cms send alert to ibm cloud and display in device recent events.

CODE:

```
#define trigPin 12

#define echoPin 13

int Buzzer = 8; // Connect buzzer pin to 8

int ledPin= 6; //Connect LEd pin to 6

int duration, distance; //to measure the distance and time taken

void setup() {

    Serial.begin (9600);

    //Define the output and input objects(devices)

    pinMode(trigPin, OUTPUT);

    pinMode(echoPin, INPUT);

    pinMode(Buzzer, OUTPUT);

    pinMode(ledPin, OUTPUT);

}

void loop() {

    digitalWrite(trigPin, HIGH);

    delayMicroseconds(10);

    digitalWrite(trigPin, LOW);
```

```

duration = pulseIn(echoPin, HIGH);
distance = (duration/2) / 29.1;
if (distance >= 200 || distance <= 0)
{
    Serial.println("no object detected");
    digitalWrite(Buzzer,LOW);
    digitalWrite(ledPin,LOW);
}
else {
    Serial.println("object detected \n");
    Serial.print("distance= ");
    Serial.print(distance);    //prints the distance if it is between the range 0 to 200
    tone(Buzzer,400);          // play tone of 400Hz for 500 ms
    digitalWrite(ledPin,HIGH);
}
}

```

Output:

