

## ASSIGNMENT-4

Team Id: PNT2022TMID32725

### Question:

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

### Coding:

```
#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());  
delay(100);  
}
```

**Design Link:**

<https://wokwi.com/projects/346660415949767250>