

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

```
#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);  
}
```

