ASSIGNMENT-4

# 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);

}