ASSIGNMENT-4

DISTANCE DETECTION USING ULTRASONIC SENSOR

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| Date | 28 October 2022 |
| Team ID | PNT2022TMID39931 |
| Student Roll Number | 511319106021 |
| Maximum Marks | 2 Marks |

# **Question1 :**

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.

WOKWI LINK :

https://wokwi.com/projects/347132714149741140

CODE:

#define ECHO\_PIN 2

#define TRIG\_PIN 3

void setup() {

**Serial**.begin(9600);

  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();

  if (distance <= 100)

  {

**Serial**.println("Movement detected ");

  }

  else {

**Serial**.print("Distance: ");

**Serial**.println(readDistanceCM());

  }

  delay(100);

}

OUTPUT:



