

# ASSIGNMENT 4

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

```
const int TRIG_PIN = 7 ;const int
ECHO_PIN = 8;

void setup() {
Pin Mode(TRIG_PIN, OUTPUT);
  digital Write(TRIG_PIN, LOW);
  pinMode(ECHO_PIN, INPUT ) ;
  Serial.begin(9600);
}

void loop() { unsigned
long t1 unsigned long t2;

  unsigned long pulse_width;

  float cm; float
  inches;

  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);

  while (digitalRead( ECHO_PIN )==0
);

  t1= micros ();
  while (digitalRead(ECHO_PIN) == 1);t2=
  micros ();
  pulse_width = t2-t1;
  cm=pulse_Width / 58 ;
  inches = pulse_width/148.0;
```

```

if (pulse_width > MAX _ DIST ){
Serial.println("Out of range");
} else
{
Serial.println("*****");

Serial.print("The Measured Distance in cm: "); Serial.println(cm);

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

}

Delay(1000);
}

```

## **OUTPUT**

