

MARTHANDAM COLLEGE OF ENGINEERING AND TECHNOLOGY

Department of Information Technology

Assignment – 3

Domain: IOT

Topic :

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. Upload document with wokwi share link and images of IBM cloud

Name: Ajisha.K

Code:-

```
int trigPin = 9;    // Trigger
int echoPin = 10;   // Echo
long duration, cm;

void setup() {
    //Serial Port begin
    Serial.begin (9600);
    //Define inputs and outputs
    pinMode(trigPin, OUTPUT);
    pinMode(echoPin, INPUT);
}

void loop() {
    digitalWrite(trigPin, LOW);
    delayMicroseconds(5);
    digitalWrite(trigPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(trigPin, LOW);

    pinMode(echoPin, INPUT);
    duration = pulseIn(echoPin, HIGH);

    // Convert the time into a distance
    cm = (duration/2) / 29.2;
    if(cm<100)
    {
        Serial.print("CM :alert ");
    }
}
```

```

Serial.println(cm);
}

// Divide by 29.1 or multiply by 0.0343

delay(1000);
}

```

WOKWI

SAVE SHARE sketch.ino copy Docs

sketch.ino diagram.json Library Manager

```

1 int trigPin = 9; // Trigger
2 int echoPin = 10; // Echo
3 long duration, cm;
4
5 void setup() {
6   //Serial Port begin
7   Serial.begin(9600);
8   //Define inputs and outputs
9   pinMode(trigPin, OUTPUT);
10  pinMode(echoPin, INPUT);
11 }
12
13 void loop() {
14   digitalWrite(trigPin, LOW);
15   delayMicroseconds(5);
16   digitalWrite(trigPin, HIGH);
17   delayMicroseconds(10);
18   digitalWrite(trigPin, LOW);
19
20   pinMode(echoPin, INPUT);
21   duration = pulseIn(echoPin, HIGH);
22
23   // Convert the time into a distance
24   cm = (duration/2) / 29.2;
25   if(cm<100)
26   {
27     Serial.print("CM : alert ");
28     Serial.println(cm);
29   }
30   // Divide by 29.1 or multiply by 0.0343
31
32   delay(1000);
33 }

```

Simulation

Windows Taskbar: Type here to search, Rain..., ENG, 20:26, 03-11-2022