

#### ASSIGNMENT-4

DATE	22 October 2022
TEAM ID	PNT2022TMID51935
PROJECT NAME	SMART WASTE MANAGEENT FOR METROPOLITAN CITIES-IOT
MARKS	2 Marks

#### QUESTION :

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.

#### CODE :

```
#include "Ultrasonic.h"

Ultrasonic ultrasonic(12,13);

int distance;

void setup()

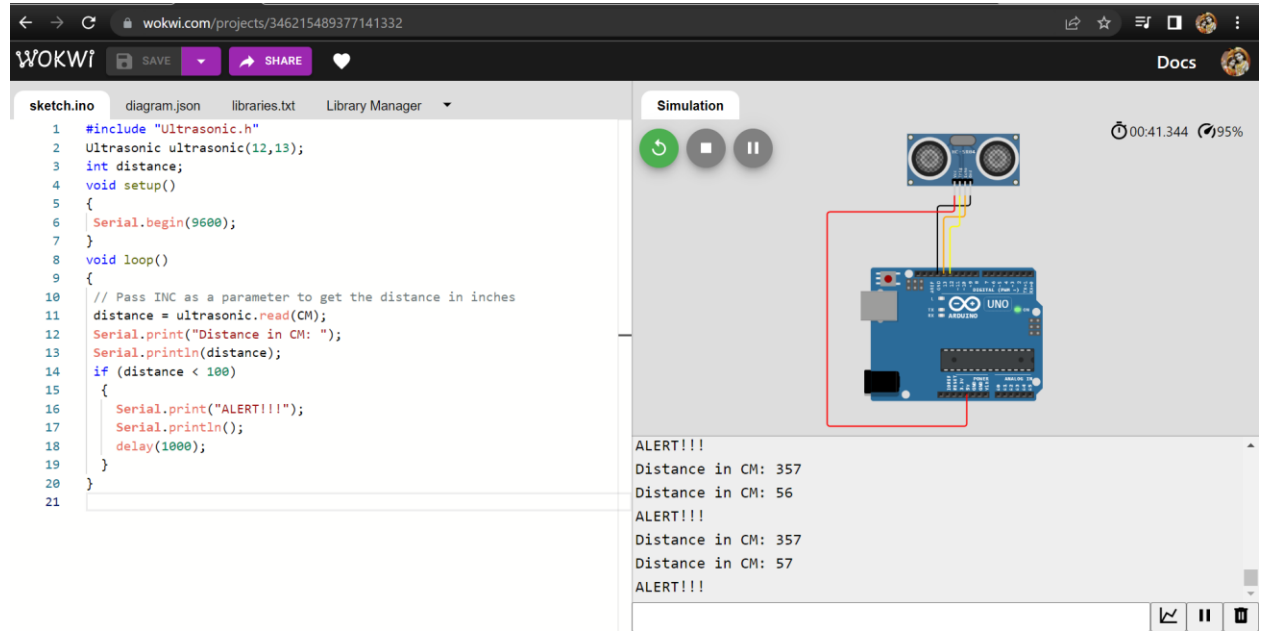
{
  Serial.begin(9600);
}

void loop()

{
  // Pass INC as a parameter to get the distance in inches
  distance = ultrasonic.read(CM);
  Serial.print("Distance in CM: ");
  Serial.println(distance);
  if (distance < 100)
  {
    Serial.print("ALERT!!!");
    Serial.println();
    delay(1000);
  }
}
```

}

## OUTPUT :



The screenshot displays the Wokwi online IDE interface. On the left, the 'sketch.ino' file is open, showing the following code:

```
1 #include "Ultrasonic.h"
2 Ultrasonic ultrasonic(12,13);
3 int distance;
4 void setup()
5 {
6   Serial.begin(9600);
7 }
8 void loop()
9 {
10  // Pass INC as a parameter to get the distance in inches
11  distance = ultrasonic.read(CM);
12  Serial.print("Distance in CM: ");
13  Serial.println(distance);
14  if (distance < 100)
15  {
16    Serial.print("ALERT!!!");
17    Serial.println();
18    delay(1000);
19  }
20 }
21
```

On the right, the 'Simulation' window shows a virtual Arduino Uno board connected to an ultrasonic sensor module. The sensor's output is connected to the Arduino's digital pins 12 and 13. The simulation is running, and the output window at the bottom shows the following log:

```
ALERT!!!
Distance in CM: 357
Distance in CM: 56
ALERT!!!
Distance in CM: 357
Distance in CM: 57
ALERT!!!
```

Link : <https://wokwi.com/projects/346215489377141332>