

Assignment -4

Assignment Date	12 November 2022
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Maximum Marks	2 Marks

Question-1:

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.

Solution :

```
#include "Ultrasonic.h"
Ultrasonic ultrasonic(6,2);
int distance;
void setup() {
    Serial.begin(9600);
}
void loop() {
    distance = ultrasonic.read(CM);
    Serial.print("Distance in CM: ");
    Serial.println(distance);
    if (distance < 100)
        Serial.print("alert");
    Serial.println();
    delay(3000);
}
```

Output :

The screenshot displays the Arduino IDE interface. The left pane shows the code for `hc-sr04-Ultrasonic-Simulation.ino`. The right pane shows a simulation of an Arduino Uno connected to an HC-SR04 ultrasonic sensor. The simulation output window at the bottom shows the following sequence of printed messages:

```
Distance in CM: 317
Distance in CM: 162
Distance in CM: 47
alert
```

The code in the left pane is as follows:

```
1 #include "Ultrasonic.h"
2 Ultrasonic ultrasonic(6,2);
3 int distance;
4 void setup() {
5   Serial.begin(9600);
6 }
7 void loop() {
8   distance = ultrasonic.read(CM);
9   Serial.print("Distance in CM: ");
10  Serial.println(distance);
11  if (distance < 100)
12    Serial.print("alert");
13  Serial.println();
14  delay(3000);
15 }
16
```