

## ASSIGNMENT4

Date	28October 2022
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RollNo	19CS40

**Write code and connections in wowki for ultrasonic sensor. Whenever distance is less than 100cms send “alert” to IBM cloud and display in device recent events.**

### **ProgramCode:**

```
#include
"Ultrasonic.h"Ultrasonic
ultrasonic(6,2);intdistanc
e;voidsetup()
{
Serial.begin(9600);
}
voidloop(){
distance =
ultrasonic.read(CM);Serial.prin
t("Distance in CM:
");Serial.println(distance);if(dist
ance<100)
```

```
Serial.print("alert");  
  
Serial.println();  
delay(3000);  
  
}
```

## OUTPUT:

The screenshot displays the Wokwi online IDE interface. On the left, the code for 'hc-sr04-Ultrasonic-Simulation.ino' is shown. The code initializes an ultrasonic sensor, reads distance values in centimeters, and prints them. When the distance is less than 100cm, it prints 'alert' and delays for 3000ms.

```
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  {  
13    Serial.print("alert");  
14    Serial.println();  
15    delay(3000);  
16  }
```

On the right, the simulation shows an Arduino Uno board connected to an HC-SR04 ultrasonic sensor. The output console displays the following sequence of results:

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

The bottom of the screen shows a Windows taskbar with the date 10/28/2022 and time 7:38 PM.