

ASSIGNMENT4

Date	28October 2022
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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 at pin 6, reads the distance in centimeters, and prints it. If 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 with an HC-SR04 sensor connected. The serial monitor output shows the following sequence:

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

The system status bar at the bottom indicates a temperature of 30°C, cloudiness, and a time of 7:38 PM on 10/28/2022.