

ASSIGNMENT4

Date	28October 2022
TeamID	PNT2022TMID41867
RollNo	19CS39

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 a Wokwi simulation of an Arduino Uno microcontroller board connected to an HC-SR04 ultrasonic sensor. The sensor is connected to the Arduino's digital pins (VCC to 5V, GND to GND, Trig to digital pin 2, and Echo to digital pin 3). The code in the editor on the left 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  {  
13    Serial.print("alert");  
14    Serial.println();  
15    delay(3000);  
16  }
```

The simulation output window on the right shows the following sequence of printed data:

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

The simulation interface includes a 'Simulation' tab with play, pause, and stop buttons, a timer showing 00:16.038, and a battery level indicator at 85%. The bottom status bar shows the system clock as 7:38 PM on 10/28/2022.