

## ASSIGNMENT 4

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|---------|--|
| Date    | 30 October 2022                                      |
| Team ID | PNT2022TMID35153                                     |
| Project | Signs with smart connectivity for better road safety |

**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.**

### **Program Code:**

```
#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 a Wokwi simulation of an Arduino Uno microcontroller board connected to an HC-SR04 ultrasonic sensor module. 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 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
```

The simulation output window shows the following sequence of events:

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

The simulation is running at 85% speed, and the system clock shows 7:38 PM on 10/28/2022.