

## ASSIGNMENT 4

Date	28 October 2022
Team ID	PNT2022TMID22782

**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. The sensor is connected to the Arduino's digital pins (VCC to 5V, GND to GND, Trig to D2, and Echo to D3). 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 shows the following sequence of printed values:

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

The simulation interface includes a 'Simulation' tab with play, pause, and reset buttons. The top status bar shows a timer at 00:16.038 and a battery level at 85%. The bottom status bar indicates a temperature of 30°C and a cloudy weather condition.