

## ASSIGNMENT 4

Date	05.11.2022
Team ID	PNT2022TMID17036
Project Name	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
```

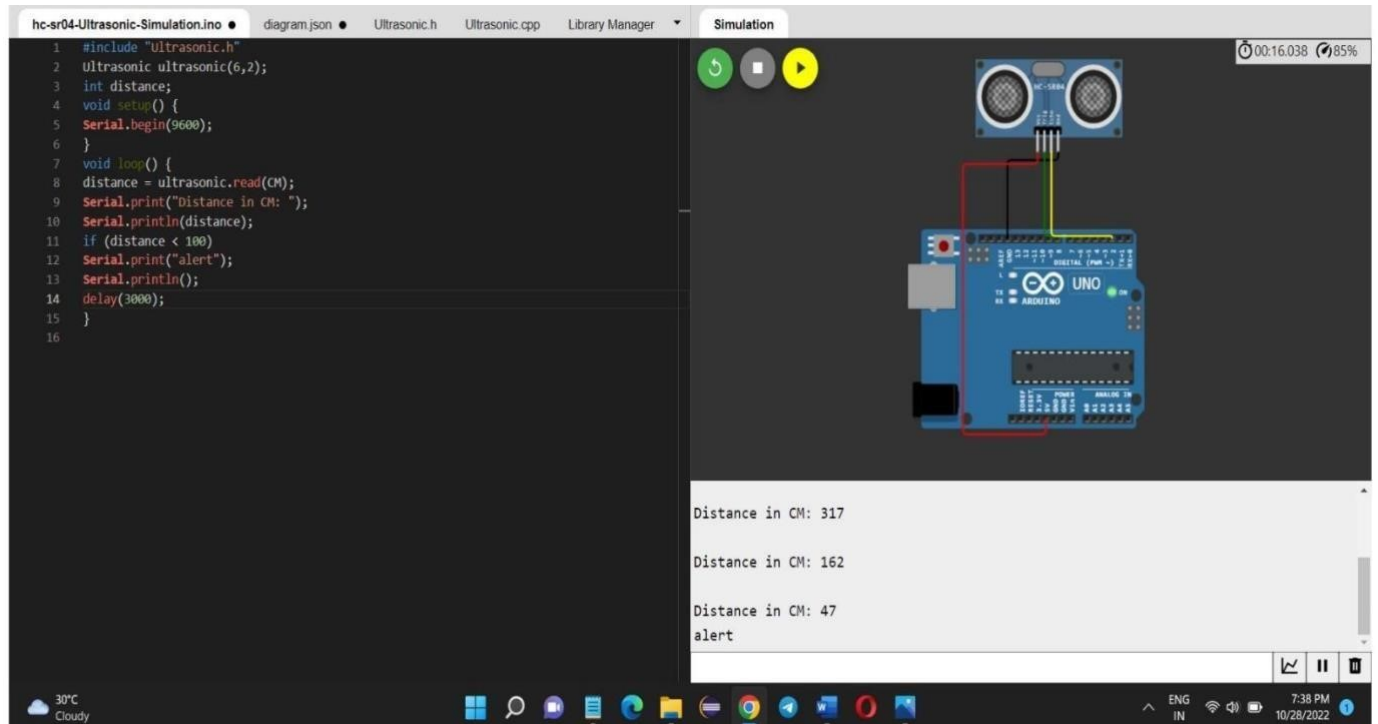
(distance < 100)

Serial.print("alert");

Serial.println(); delay(3000);

}

## OUTPUT:



The screenshot displays the Arduino IDE interface during a simulation. The left pane shows the source code for 'hc-sr04-Ultrasonic-Simulation.ino'. The code includes the 'Ultrasonic' library, initializes a sensor at pin 6, and implements a loop that reads distance, prints it, and triggers an 'alert' if the distance is less than 100 cm. The right pane shows a virtual circuit diagram of an Arduino Uno connected to an HC-SR04 ultrasonic sensor. Below the diagram, a serial monitor window shows the output of the program: 'Distance in CM: 317', 'Distance in CM: 162', 'Distance in CM: 47', and 'alert'. The bottom status bar indicates the system temperature is 30°C and the date is 10/28/2022.

```
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  }
```

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