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| Team ID      | PNT2022TMID44448  |
| Submitted by | K.Nithya  |
| Topic        | Signs With smart connectivity for better road safety  |
| Assignment   | Write code and connections in wokwi 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(8,13);

int distance;

void setup() {
  Serial.begin(9600);
}

void loop() {
  distance = ultrasonic.read();
  Serial.print("Distance in CM: ");
  Serial.println(distance);
  If (distance <100)
  Serial.print("alert ");
  Serial.println();
  delay(3000);
}

```

# Output:

The screenshot displays the Wokwi IDE interface for a project named "hc-sr04-Ultrasonic-Simulation.ino". The code editor on the left contains the following C++ code:

```
37
38 #include "Ultrasonic.h"
39 /*
40  * Pass as a parameter the trigger and echo pin, respectively,
41  * or onnal pin (for sensors 3 pins), like:
42  * Ultrasonic ultrasonic(13);
43  */
44 Ultrasonic ultrasonic(8,13);
45 int distance;
46 void setup(){
47   Serial.begin(9600);
48 }
49 void loop() {
50   distance = ultrasonic.read(CM);
51   Serial.print("Distance in CM: ");
52   Serial.println(distance);
53   if (distance < 100)
54     Serial.print("alert");
55     Serial.println();
56     delay(3000);
57 }
```

The simulation window on the right shows a digital representation of an Arduino Uno board connected to an HC-SR04 ultrasonic sensor. The sensor's trigger pin is connected to digital pin 8, and its echo pin is connected to digital pin 13. The simulation is running, as indicated by the play button and the timer showing 00:19.993. The output log at the bottom of the simulation window displays the following text:

```
Distance in CM: 0
alert
Distance in CM: 0
alert
```

The Windows taskbar at the bottom shows the system time as 12:11 AM on 11/11/2022, with a temperature of 31°C and a cloudy weather condition.