

ASSIGNMENT 4

Date	25 October 2022
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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(12, 13);
int distance;
void setup() {
  Serial.begin(6900);
}
void loop() {
  distance = ultrasonic.read(CM);
  Serial.print("Distance in CM: ");
  Serial.println(distance);
  if (distance < 100)
  Serial.print("alert");
  Serial.println();
  delay(1000);
}
```

OUTPUT:

The screenshot displays the Wokwi web-based IDE interface. On the left, the 'sketch.ino' file contains the following C++ code:

```
1 #include "Ultrasonic.h"
2 Ultrasonic ultrasonic(12, 13);
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(1000);
15  }
16
17
18
```

On the right, the 'Simulation' window shows a virtual Arduino Uno board with an ultrasonic sensor connected to pins 12 and 13. Below the board, the serial monitor displays the output of the program:

```
Distance in CM: 357
Distance in CM: 87
alert
Distance in CM: 176
```

The bottom of the image shows a Windows taskbar with the system clock at 12:44 AM on 10/27/2022.