

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(9600);
}
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 online Arduino IDE interface. On the left, the sketch editor shows the following 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
```

On the right, the simulation window shows an Arduino Uno connected to an ultrasonic sensor. The simulation output at the bottom displays the following sequence of events:

```
Distance in CM: 109
Distance in CM: 24
alert
Distance in CM: 61
alert
```

The simulation window also includes a 'Simulation' tab with play, stop, and refresh buttons, and a timer showing 01:28.177 with 91% completion.