

## ASSIGNMENT4

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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.**

### **ProgramCode:**

```
#include
"Ultrasonic.h"Ultrasonic
ultrasonic(6,2);intdistanc
e;voidsetup()
{
Serial.begin(9600);
}
voidloop(){
distance =
ultrasonic.read(CM);Serial.prin
t("Distance in CM:
");Serial.println(distance);if(dist
ance<100)
```

```
Serial.print("alert");  
  
Serial.println();  
delay(3000);  
  
}
```

## OUTPUT:

The screenshot displays the Wokwi online IDE interface. On the left, the code for 'hc-sr04-Ultrasonic-Simulation.ino' is shown. It includes the 'Ultrasonic.h' library, initializes an ultrasonic sensor at pin 6 with a trigger pin of 2, and sets the serial port to 9600. The loop function reads the distance in centimeters, prints it, and triggers an 'alert' (another print statement) if the distance is less than 100cm, followed by a 3-second delay.

On the right, the simulation shows an Arduino Uno board connected to an HC-SR04 ultrasonic sensor. The sensor's VCC is connected to the 5V pin, GND to the GND pin, and the trigger and echo pins to digital pins 6 and 2 respectively. The serial monitor at the bottom right shows the output of the program:

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

The status bar at the bottom indicates a temperature of 30°C, a cloudy weather condition, and the system time is 7:38 PM on 10/28/2022.