

## ASSIGNMENT- 4

<b>Assignment Date</b>	<b>22 October 2022</b>
<b>Student Name</b>	<b>Surendharan E B</b>
<b>Student Roll Number</b>	<b>311019205042</b>
<b>Maximum Mark</b>	<b>2 Marks</b>

### Question:

Write code and connections in wokwi for ultrasonic. Whenever distance is less than 100 cm s send “alert” to ibm cloud and display in device recent events.

### Program:

```
#define ECHO_PIN 2
#define TRIG_PIN 3

void setup() {
  Serial.begin(9600);
  pinMode(TRIG_PIN, OUTPUT);
  pinMode(ECHO_PIN, INPUT);
}

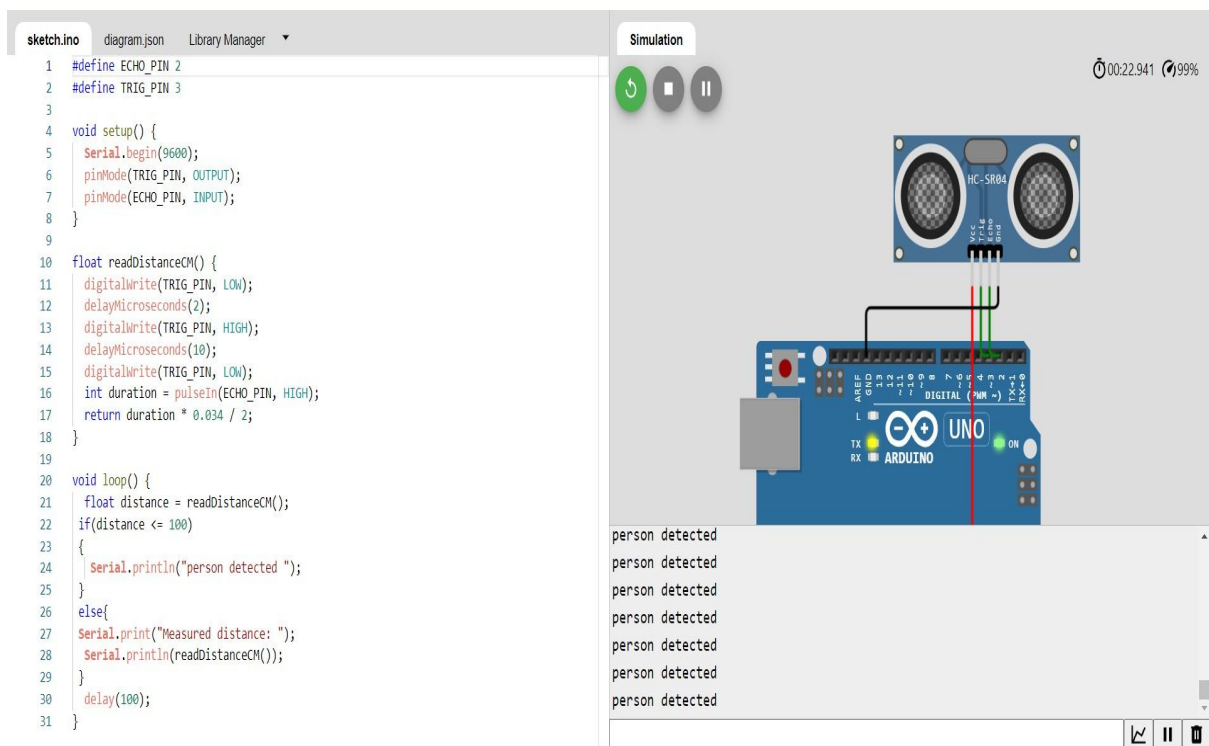
float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);
  int duration = pulseIn(ECHO_PIN, HIGH);
  return duration * 0.034 / 2;
}

void loop() {
  float distance = readDistanceCM();
  if(distance <= 100)
  {
    Serial.println("person detected ");
  }
}
```

```

else{
Serial.print("Measured distance: ");
Serial.println(readDistanceCM());
}
delay(100);
}

```



**Wokwi Link:** <https://wokwi.com/projects/346965903633547858>



## IBM Cloud






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Search by Device ID

Device Simulator ☐  

Device ID	Status	Device Type	Class ID
>  1234	 Disconnected	SmartFarmer	Device
▼  Ultrasonic_1	 Disconnected	Ultrasonic	Device 

**Identity**   **Device Information**   **Recent Events**   **State**   **Logs**   ✕

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**Device ID**   Ultrasonic\_1

**Device Type**   Ultrasonic

**Date Added**   Oct 25, 2022 4:25 PM

**Added By**   820419205501@smartintenz.com

**Connection Status**   **Disconnected**  
 Last Connected: Oct 25, 2022 4:28 PM  
 Client Address: 42.109.148.176 SecureToken  
 Duration: 2 minutes  
 Data Transferred: 2.7 KB

>  pga460_sensor	 Disconnected	Ultrasonic	Device
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