

ASSIGNMENT- 4

Assignment Date	22 October 2022
Student Name	Alameen A A
Student Roll Number	311019205005
Maximum Mark	2 Marks

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);
}

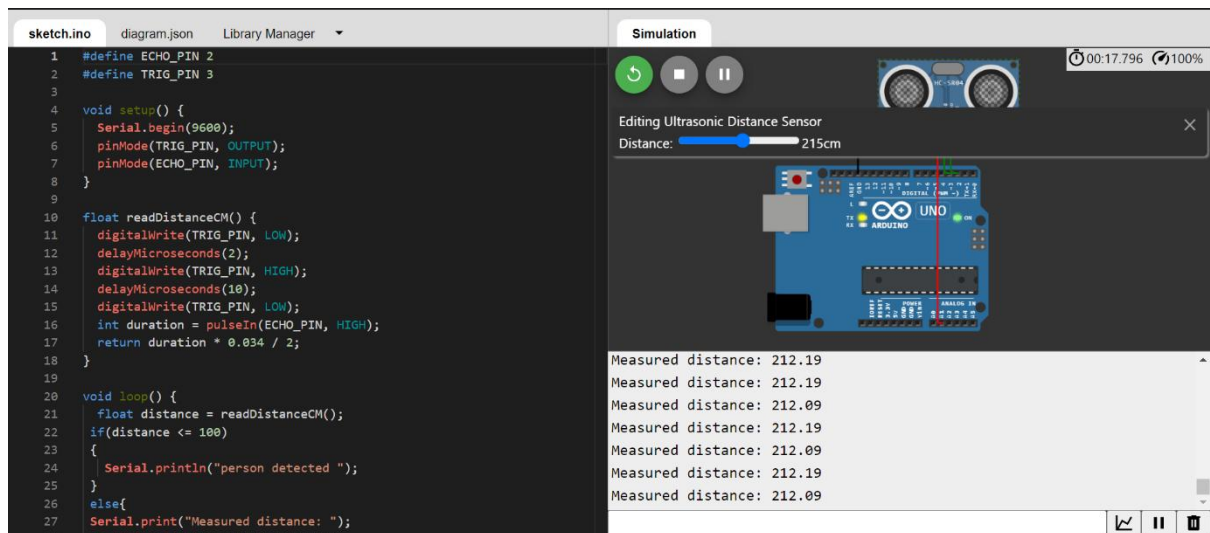
float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);
  int duration = pulseIn(ECHO_PIN, HIGH);
  return duration * 0.034 / 2;
}

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/346933024522240596>

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Search by Device ID

Device Simulator ☐ [Icon] [Filter]

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID
> <input type="checkbox"/>	1234	Disconnected	SmartFarmer	Device
▼ <input checked="" type="checkbox"/>	Ultrasonic_1	Disconnected	Ultrasonic	Device → ...

Identity Device Information Recent Events State Logs X

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

> <input type="checkbox"/>	pga460_sensor	Disconnected	Ultrasonic	Device
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