

ASSIGNMENT- 4

Assignment Date	22 October 2022
Student Name	A. Dinesh Kumar
Student Roll Number	311019205011
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);
}
```

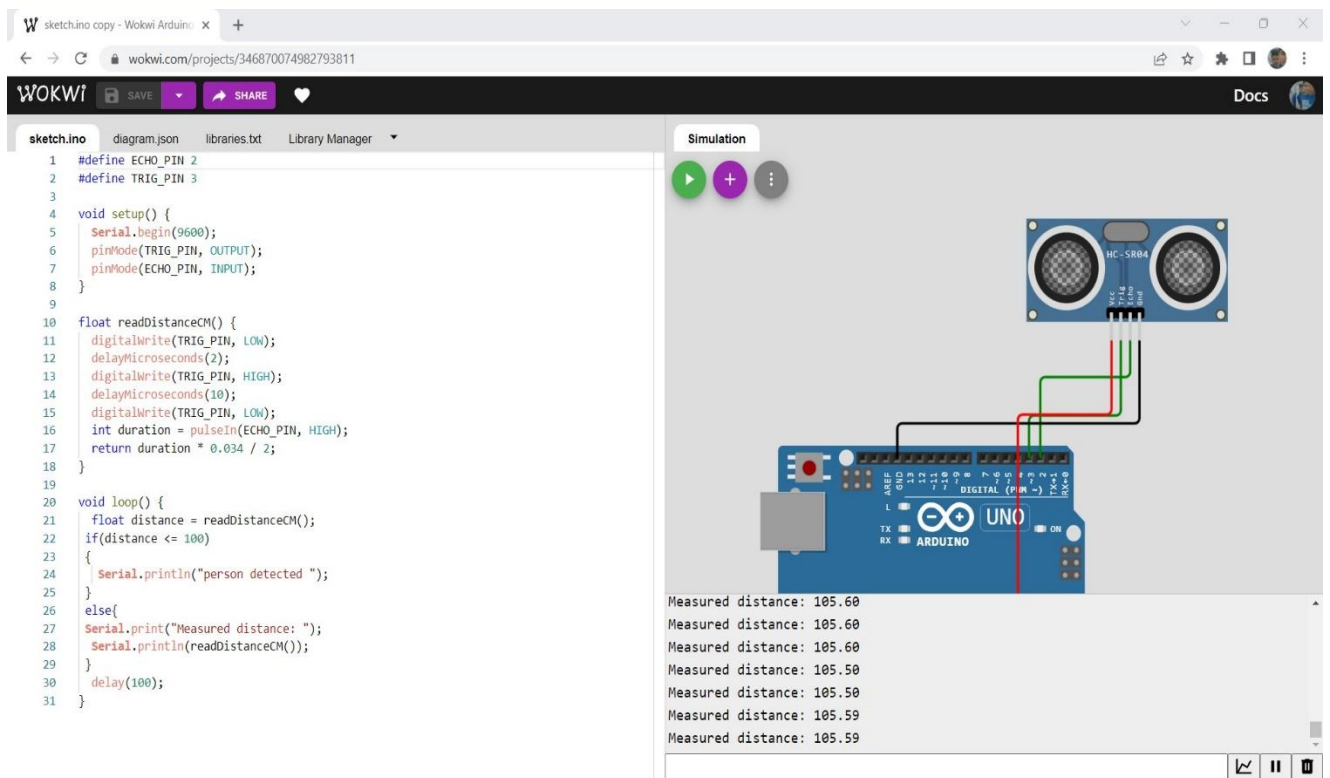
```
float readDistanceCM() {
  digitalWrite(TRIG_PIN, LOW);
  delayMicroseconds(2);
  digitalWrite(TRIG_PIN, HIGH);
  delayMicroseconds(10);
  digitalWrite(TRIG_PIN, LOW);
  int duration = pulseIn(ECHO_PIN, HIGH);
  return duration * 0.034 / 2;
}
```

```
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/346870074982793811>

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Device Simulator ☒

	Device ID	Status	Device Type	Class ID
>	<input type="checkbox"/> 1234	Disconnected	SmartFarmer	Device
▼	<input checked="" type="checkbox"/> Ultrasonic_1	Disconnected	Ultrasonic	Device → ...
<div style="display: flex; justify-content: space-between; padding: 5px;"> Identity Device Information Recent Events State Logs × </div>				
	<div style="padding: 10px;"> <p>Device ID Ultrasonic_1</p> <p>Device Type Ultrasonic</p> <p>Date Added Oct 25, 2022 4:25 PM</p> <p>Added By 820419205501@smartinternz.com</p> <p>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</p> </div>			
>	<input type="checkbox"/> pga460_sensor	Disconnected	Ultrasonic	Device