

Assignment-4

Assignment Date	31 October 2022
Student Name	DHANUSH MS
Team ID	PNT2022TMID01438
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES
Maximum Marks	2 Marks

Question-1:

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

Solution:

```
#define ECHO_PIN 2

#define TRIG_PIN 3

#define organisation =
"a09qmv" #define deviceType
= "device1"

#define deviceId ="1234"

#define authMethod ="use-token-auth"

#define authToken ="12345678"

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:
```

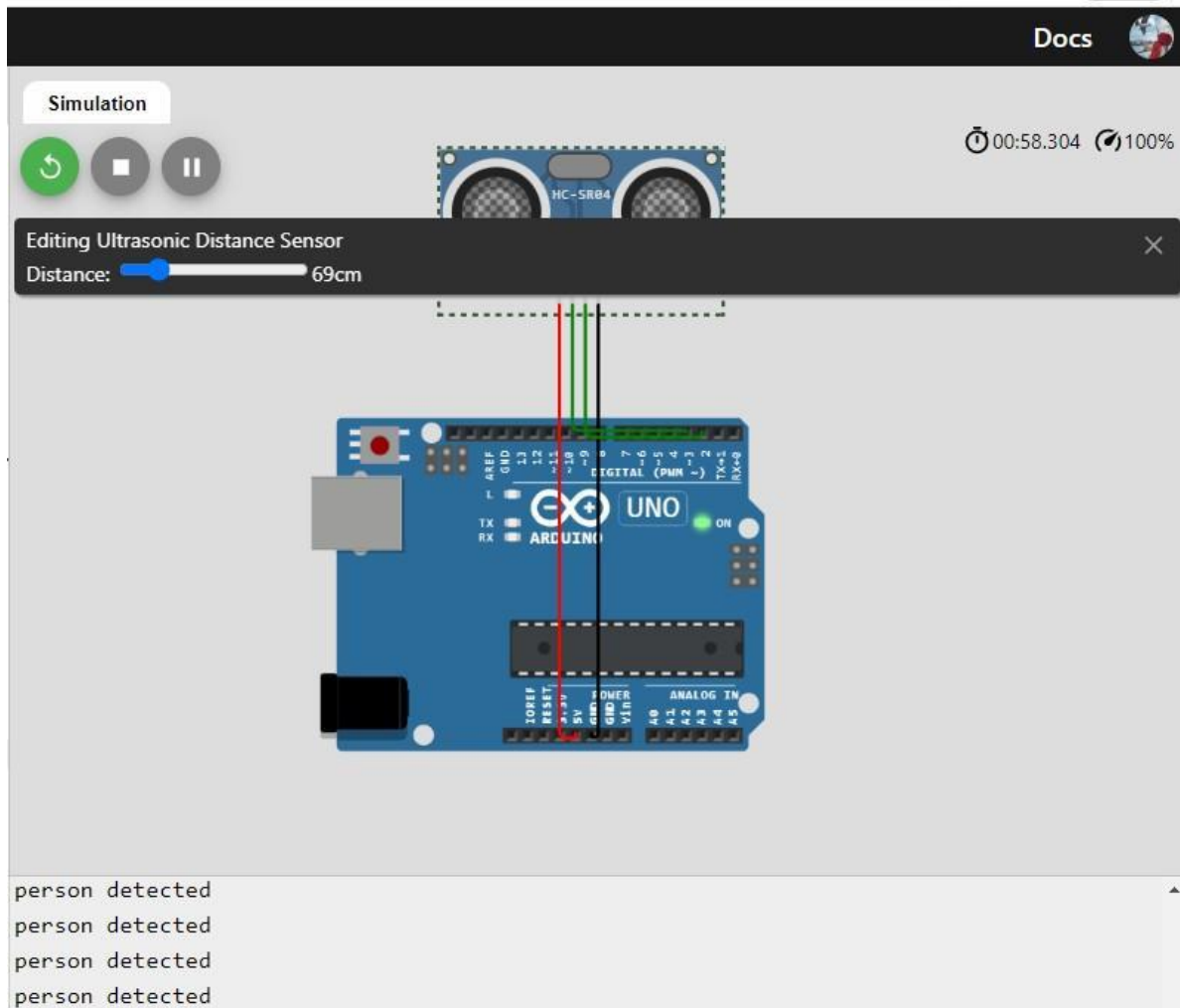
```
");
```

```
Serial.println(readDistanceCM())
```

```
;
```

```
}
```

```
delay(1000); }
```



<https://wokwi.com/projects/346567584774095442>
Wokwi Link

IBM Cloud

Device Recent Events

IBM Watson IoT Platform

820419205063@smartinternz.com
ID: a09qmw

Browse Action Device Types Interfaces

Add Device +

criteria. To get started, you can add devices by using the Add Device button, or by using API.

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location	Added By
1234	Disconnected	device1	Device	Oct 26, 2022 1:15 PM		820419205063@smartinternz.com

Identity Device Information Recent Events State Logs

Device ID	1234
Device Type	device1
Date Added	Oct 26, 2022 1:15 PM
Added By	820419205063@smartinternz.com
Connection Status	Disconnected

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