

Assignment -4

Assignment Date	19 Novamber 2022
Team ID	PNT2022TMID38150
Project Name	Project-Smart Farmer-IoT Enabled Smart Farming Application
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 ");
```

```
}
```

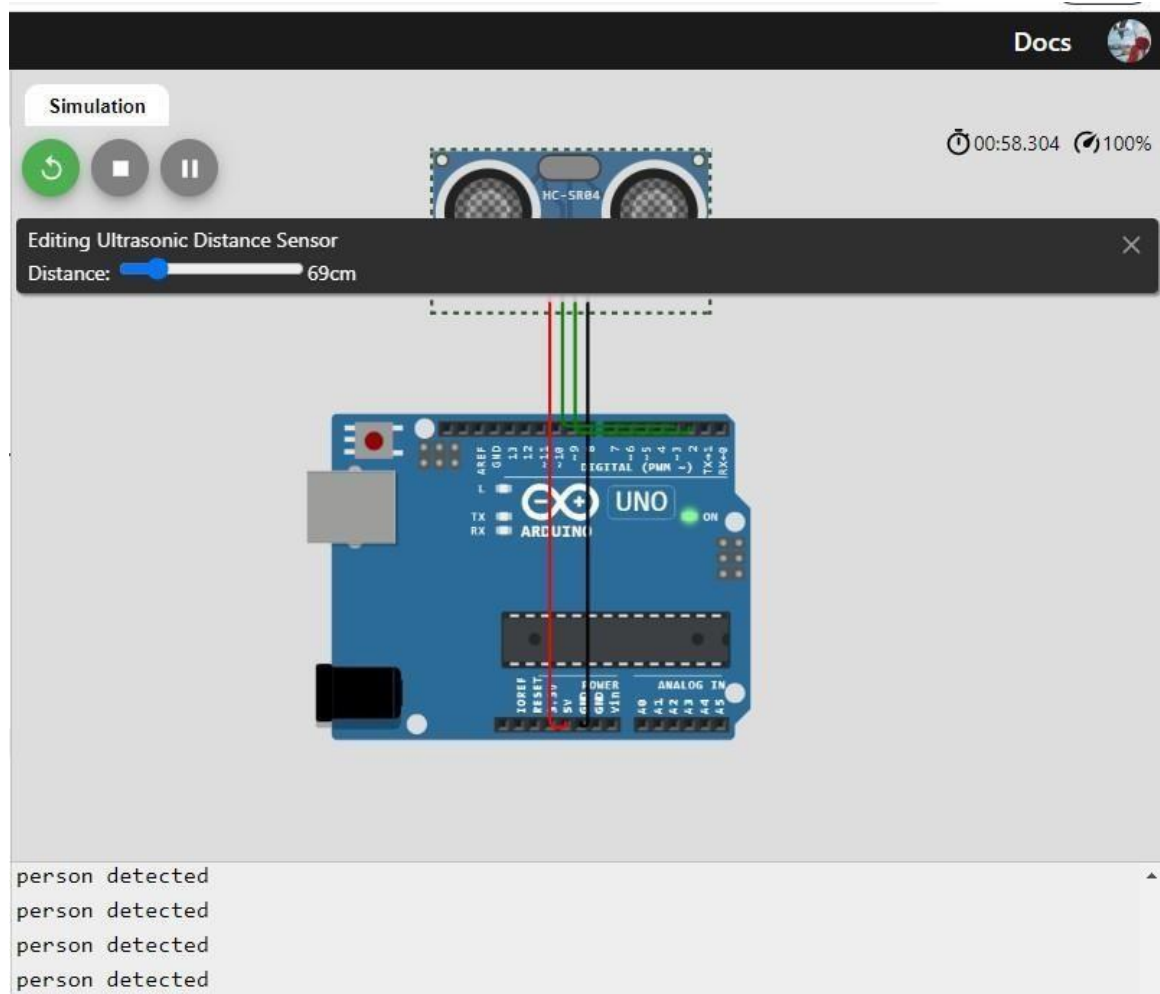
```
else{
```

```
Serial.print("Measured distance: ");
```

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

```
}
```

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



IBM Cloud

Device Recent Events

gmail login - Search

Welcome to Project! Delighte

IBM

Service Details - IBM Cloud

IBM Watson IoT Platform

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https://899y22.internetofthings.ibmcloud.com/dashboard/devices/browse

IBM Watson IoT Platform

411819104005@smartinternz.com
ID: 899y22

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Browse

Action

Device Types

Interfaces

Add Device

Browse Devices

All Devices

Diagnose

This table shows a summary of all devices that have been added. It can be filtered, organized, and searched on using different 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
Device1	Disconnected	TMID38160	Device	Nov 21, 2022 12:19 PM

Identity

Device Information

Recent Events

State

Logs

Device ID

Device1

Device Type

TMID38160

Date Added

Nov 21, 2022 12:19 PM

Added By

411819104005@smartinternz.com

Connection Status

Disconnected

Items per page: 50

1-1 of 1 item

1 of 1 page

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