

Assignment -4

Assignment Date	19 Novamder 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 ");
```

```
}
```

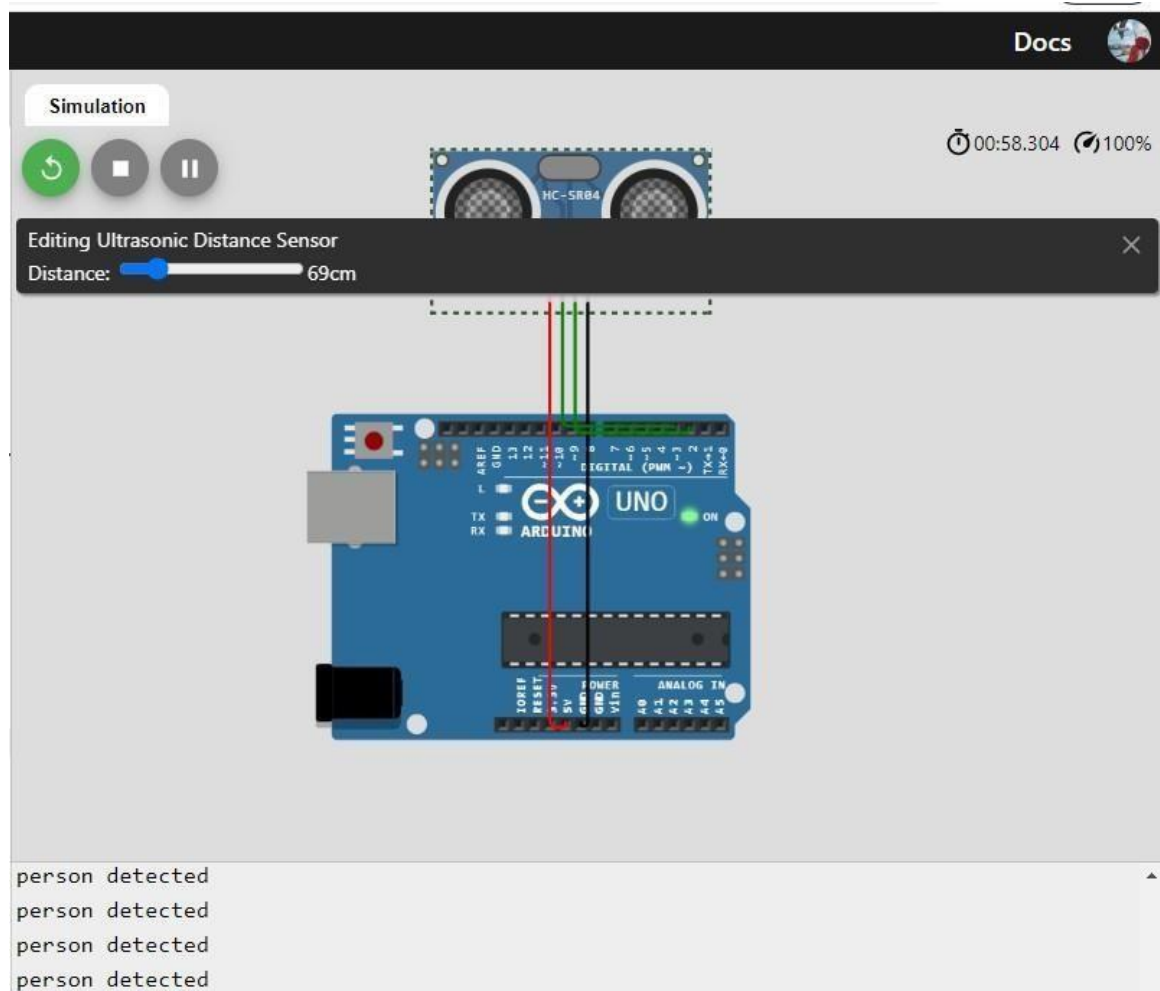
```
else{
```

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

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

```
}
```

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



IBM Cloud

Device Recent Events

gmail login - SearchWelcome to Project IBMcloud.ibm.com - SearchService Details - IBMWatson IoT Platform

https://m57ubo.internetofothings.ibmcloud.com/dashboard/devices/browse

411819104003@smartinternz.comID: m57ubo

IBM Watson IoT Platform

Browse Action Device Types Interfaces

Add Device

Browse Devices

All DevicesDiagnose

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
TMID88150	Disconnected	Device1	Device	Nov 18, 2022 2:24 PM

Identity

Device InformationRecent EventsStateLogs

Device ID

Device Type

Date Added

Added By

Connection Status

TMID88150

Device1

Nov 18, 2022 2:24 PM

411819104003@smartinternz.com

Disconnected

Items per page: 50 | 1-1 of 1 item

1 of 1 page

Type here to search

26°C CloudyENG12:3321-11-2022