

Assignment -4

Assignment Date	19 October 2022
Team ID	PNT2022TMID14842
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 organization = “y5c2yt”

#define deviceType = “device1”

#define deviceId = “225588”

#define authMethod = “use-token-auth”

#define authToken = “789456123”

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);

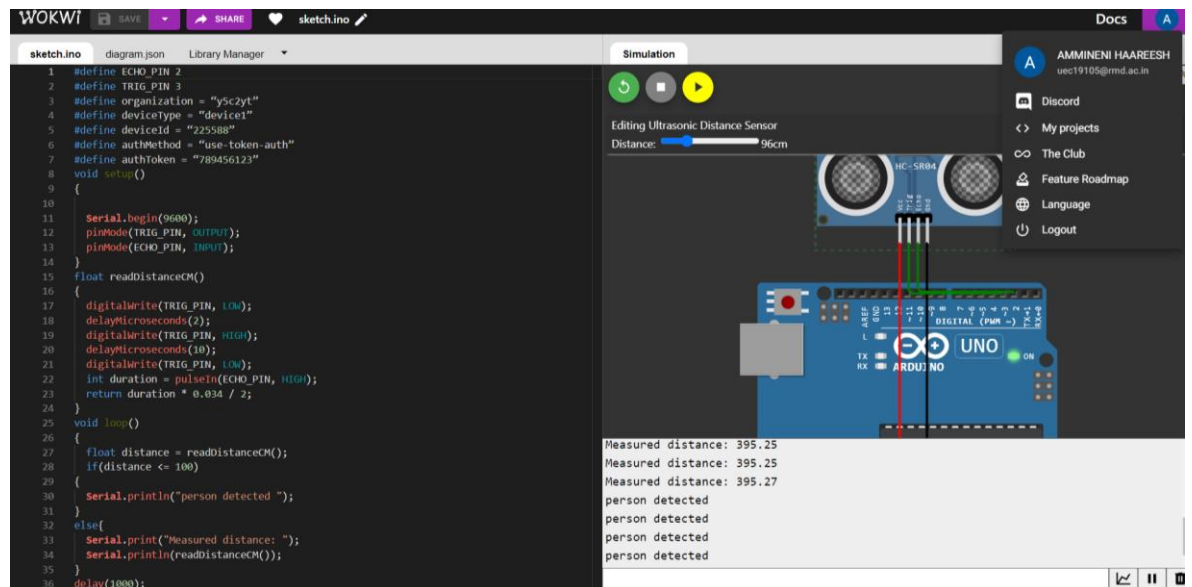
  return duration * 0.034 / 2;

}
```

```

void loop() { float distance =
readDistanceCM(); if(distance <=
100)
{
    Serial.println("person detected ");
} else{
Serial.print("Measured distance: ");
    Serial.println(readDistanceCM());
}
    delay(1000);
}

```



Wokwi Link: <https://wokwi.com/projects/348914529140212307>

IBM Cloud

Device Recent Events

IBM Watson IoT Platform

uec19105@rmd.ac.in
ID: y5c2yt

Browse

Action

Device Types

Interfaces

Add Device

Search by Device ID

Device Simulator

Device ID	Status	Device Type	Class ID	Date Added	Descriptive Location
12345	Disconnected	NodeMCU	Device	Nov 8, 2022 10:29 AM	
225588	Disconnected	device1	Device	Nov 21, 2022 11:16 AM	

Identity

Device Information

Recent Events

State

Logs

Device ID

Device Type

Date Added

Added By

Connection Status

225588

device1

Nov 21, 2022 11:16 AM

uec19105@rmd.ac.in

Disconnected

Items per page 50 | 1-2 of 2 items

1 of 1 page

Identity

Device Information

Recent Events

State

Logs

The recent events listed show the live stream of data that is coming and going from this device.

Event	Value	Format	Last Received
event_1	"PersonDetected"	json	a few seconds ago
event_1	"PersonDetected"	json	a few seconds ago
event_1	"PersonDetected"	json	a few seconds ago
event_1	"PersonDetected"	json	a few seconds ago
event_1	"PersonDetected"	json	a few seconds ago

1 Simulation running