

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);

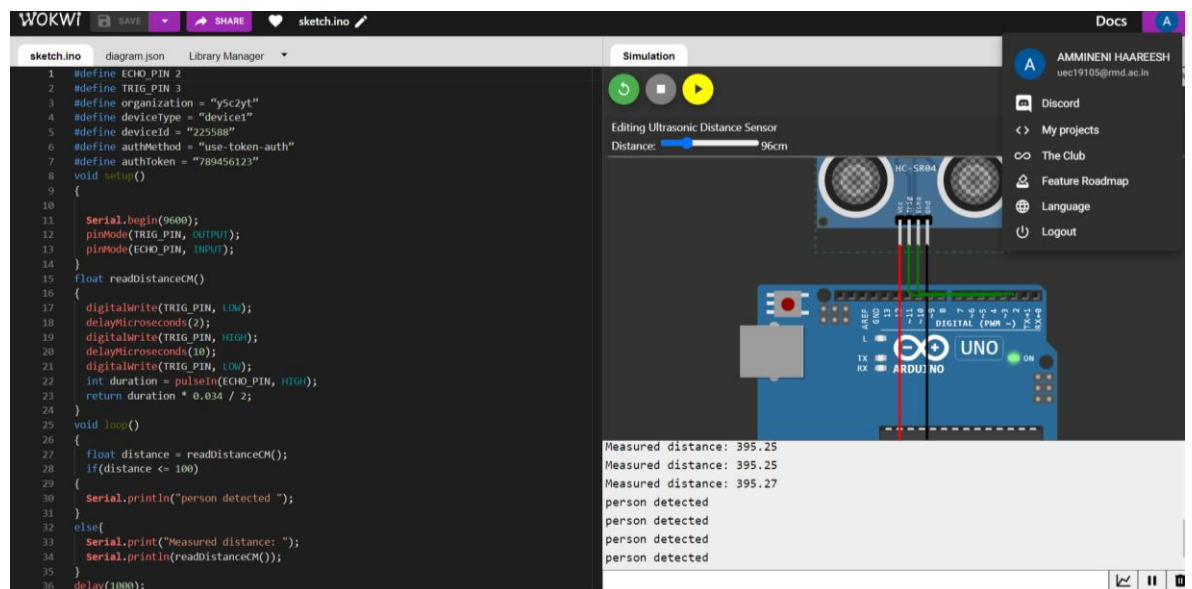
  return duration * 0.034 / 2;

}
```

```

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

Q

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

225588

Device Type

device1

Date Added

Nov 21, 2022 11:16 AM

Added By

uec19105@rmd.ac.in

Connection Status

Disconnected

Items per page 50 | 1-2 of 2 Items

1 of 1 page

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1

>

Identity Device Information Recent Events State Logs X

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