

# ASSIGNMENT 4

## Ultrasonic sensor simulation in Wokwi

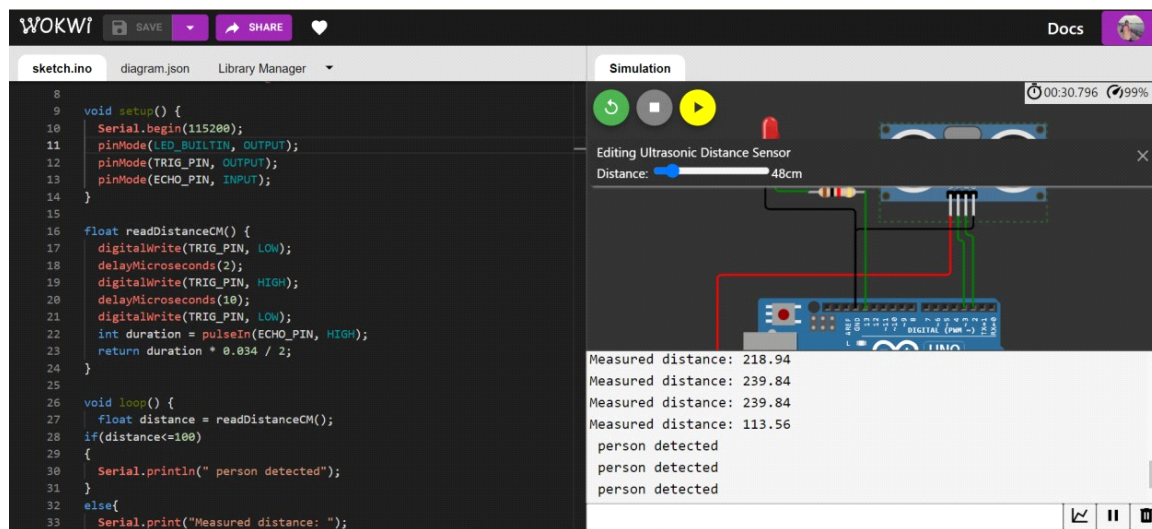
**PROJECT NAME:** Real-Time River Water Quality Monitoring and Control System

**TEAM MEMBER :** KARUN D

**Question :** Write a code and connections in wokwi for the ultrasonic sensor. Whenever the distance is less than 100cms send an "Alert" to IBM cloud and display in the device recent events.

**Wokwi simulation link:** <https://wokwi.com/projects/347124503089775188>

**WOKWI OUTPUT SCREENSHOT:**



**CODE:**

```
#define ECHO_PIN 2
#define TRIG_PIN 3
#define organization = "md8rdq"
#define deviceType = "123" #define
deviceId = "123456" #define
authMethod = "token" #define
authToken = "Titik@2002"
```

```

void setup() {
  Serial.begin(115200);
  pinMode(LED_BUILTIN, OUTPUT);
  pinMode(TRIG_PIN, OUTPUT);
  pinMode(ECHO_PIN, INPUT);
}

```

IBM Watson IoT Platform

Device Type: 123

Event type name: event\_1

Schedule: 1 Every Minute

Payload: Specify the event payload in the editor window or by uploading a CSV file.

```

0 {
1  "randomNumber": random(0, 100),
2  "distance" : random(0, 150)
3 }
4

```

Upload a CSV file

What functions can I apply?

Event	Value
event_1	{\"randomNumber\":92,\"distance\":11}
event_1	{\"randomNumber\":45,\"distance\":56}

json a few seconds ago

IBM Watson IoT Platform

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```

0 {
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```

Upload a CSV file

What functions can I apply?

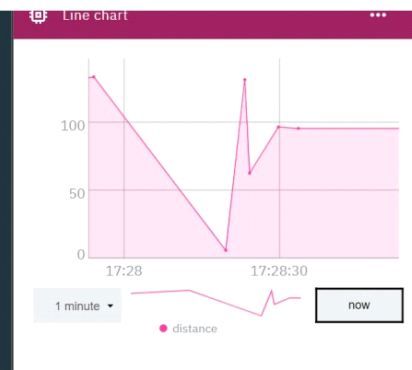
Device ID	Status	Device Type
123456	Disconnected	123

Identity Device Information Recent Events

Device ID	Device Type	Date Added	Added By	Connection Status
123456	123	Nov 1, 2022 3:43 PM	titiksha.ec19@bitsathy.ac.in	Disconnected



## ultrasonic sensor



Device Type: 123

Events 1

New event type +

Event type name event\_1

Send

Schedule

2

Every Minute

Payload

Specify the event payload in the editor window or by uploading a [CSV file](#).

```
0 {  
1   "randomnumber": random(0, 100),  
2   "distance" : random(0,150)  
3 }  
4
```

Upload a CSV file