

# ASSIGNMENT 4

WOKWI

SAVE

SHARE

sketch.ino

Docs

M

sketch.ino

diagram.json

libraries.txt

Library Manager

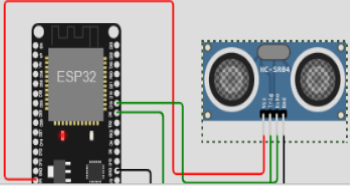
```
1 #include <WiFi.h>
2 #include <PubSubClient.h>
3 void callback(char* subscribetopic, byte* payload, unsigned int payloadLength)
4 #define ORG "k0ipgl"
5 #define DEVICE_TYPE "ESP32"
6 #define DEVICE_ID "123456"
7 #define TOKEN "1234567890"
8 String data3;
9 char server[] = ORG ".messaging.internetofthings.ibmcloud.com";
10 char publishTopic[] = "iot-2/evt/Data/fmt/json";
11 char subscribetopic[] = "iot-2/cmd/test/fmt/String";
12 char authMethod[] = "use-token-auth";
13 char token[] = TOKEN;
14 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;
15 WiFiClient wificlient;
16 PubSubClient client(server, 1883, callback ,wificlient);
17 const int trigPin = 5;
18 const int echoPin = 18;
19 #define SOUND_SPEED 0.034
20 long duration;
21 float distance;
22 void setup() {
23   Serial.begin(115200);
24   pinMode(trigPin, OUTPUT);
25
26
27
```

Simulation




00:30.727 73%

Editing Ultrasonic Distance Sensor

Distance: 122cm



Connecting to ....  
WiFi connected  
IP address:  
10.10.0.2  
Reconnecting client to k0ipgl.messaging.internetofthings.ibmcloud.com  
iot-2/cmd/test/fmt/String  
subscribe to cmd OK  
  
Distance (cm): 249.00  
Distance (cm): 248.95  
Distance (cm): 248.93  
Distance (cm): 248.93  
Distance (cm): 248.93  
Distance (cm): 248.93  
Distance (cm): 248.93  
Distance (cm): 248.93  
Distance (cm): 19.98  
ALERT!!  
Sending payload: {"Distance":19.98,"ALERT!!":"Distance less than 100cms"}  
Publish ok  
Distance (cm): 19.98  
ALERT!!  
Sending payload: {"Distance":19.98,"ALERT!!":"Distance less than 100cms"}  
Publish ok  
Distance (cm): 19.98  
ALERT!!  
Sending payload: {"Distance":19.98,"ALERT!!":"Distance less than 100cms"}  
Publish ok  
Distance (cm): 19.98  
ALERT!!  
Sending payload: {"Distance":19.98,"ALERT!!":"Distance less than 100cms"}  
Publish ok  
Distance (cm): 121.97  
Distance (cm): 121.97  
Distance (cm): 121.97  
Distance (cm): 121.97  
Distance (cm): 121.97  
Distance (cm): 121.97



```
28 }
29 void loop()
```

IBM Watson IoT Platform

man1.1914125@gst.ac.in  
ID: kDipgl

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.

Q Search by Device ID

Device Simulator

Device ID

Status

Device Type

Class ID

Date Added

123456

Disconnected

ESP32

Device

7 Nov 2022 18:40

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

Data

{"Distance":19.98,"ALERT!":"Distance less than ...

json

a few seconds ago

Data

{"Distance":19.98,"ALERT!":"Distance less than ...

json

a few seconds ago

Data

{"Distance":19.98,"ALERT!":"Distance less than ...

json

a few seconds ago

Data

{"Distance":19.98,"ALERT!":"Distance less than ...

json

a few seconds ago

Items per page 50 | 1–1 of 1 item

1 of 1 page

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1

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0 Simulations running