

ASSIGNMENT-4

IBM Watson IoT Platform

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.

Search by Device ID

Device Simulator

<input type="checkbox"/>	Device ID	Status	Device Type	Class ID	Date Added
>	dcba	Connected	abcd	Device	3 Nov 2022 09:37

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0 Simulations running

WOKWI

SAVE SHARE sketch.ino Docs

sketch.ino diagram.json libraries.txt Library Manager

```
1 #include <WiFi.h>
2 #include <PubSubClient.h>
3 WiFiClient wifiClient;
4 String data3;
5 #define ORG "fp3ufv"
6 #define DEVICE_TYPE "abcd"
7 #define DEVICE_ID "dcba"
8 #define TOKEN "9876543210"
9 #define speed 0.034
10 #define led 14
11 char server[] = ORG ".messaging.internetofthings.ibmcloud.com";
12 char publishTopic[] = "iot-2/evt/Data/fmt/json";
13 char topic[] = "iot-2/cmd/home/fmt/String";
14 char authMethod[] = "use-token-auth";
15 char token[] = TOKEN;
16 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;
17 PubSubClient client(server, 1883, wifiClient);
18 void publishData();
19
20
21 const int trigpin=5;
22 const int echopin=18;
23 String command;
24 String data="";
25
26 long duration;
27 float dist;
28
29
30
```

Simulation

00:14.938 81%

Editing Ultrasonic Distance Sensor

Distance: 73cm

Publish OK

Sending payload: {"Normal Distance":72.96}

Publish OK

Sending payload: {"Normal Distance":72.96}

Publish OK

The screenshot shows the IBM Watson IoT Platform interface. The main dashboard lists a device with ID 'dcba', status 'Connected', and type 'abcd'. A 'Recent Events' pop-up is open, showing a live stream of data. The data consists of four identical JSON objects: {"Normal Distance":72.96}. The events are received in JSON format at intervals of a few seconds. The bottom of the interface shows a Windows taskbar with the system clock at 09:43 on 03-11-2022.

Event	Value	Format	Last Received
Data	{"Normal Distance":72.96}	json	a few seconds ago
Data	{"Normal Distance":72.96}	json	a few seconds ago
Data	{"Normal Distance":72.96}	json	a few seconds ago
Data	{"Normal Distance":72.96}	json	a few seconds ago

0 Simulations running

Wokwi link:

<https://wokwi.com/projects/347206855929365074>