

**TEAM ID:PNT2022TMID27943**

**PROJECT TITLE: SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES.**

**LINK: <https://wokwi.com/projects/348413932892848723>**

### Distance when greater than 100cm-alert sent to IBM CLOUD

The screenshot shows the Wokwi IDE interface. On the left, the sketch.ino file is open, displaying the following code:

```
9
10 //-----credentials of IBM Accounts-----
11
12 #define ORG "zfwweu"//IBM ORGANITION ID
13 #define DEVICE_TYPE "1111"//Device type mentioned in ibm watson IOT Platform
14 #define DEVICE_ID "2222"//Device IDT mentioned in ibm watson IOT Platform
15 #define TOKEN "12345678" //Token
16 String data3;
17
18
19
20 //----- Customise the above values -----
21 char server[] = ORG ".messaging.internetofthings.ibmcloud.com";// Server Name
22 char publishTopic[] = "iot-2/evt/Data/fmt/json";// topic name and type of even
23 char subscribetopic[] = "iot-2/cmd/command/fmt/String";// cmd REPRESENT comma
24 char authMethod[] = "use-token-auth";// authentication method
25 char token[] = TOKEN;
26 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID;//client id
27 float dist,dur;
28 String data;
29 //-----
30 WiFiClient wifiClient; // creating the instance for wificlient
31 PubSubClient client(server, 1883, callback ,wifiClient); //calling the predefi
32
33
34 void setup()// configureing the ESP32
35 {
```

On the right, the Simulation window shows an Ultrasonic Distance Sensor connected to an ESP32. The sensor's distance is 291cm. Below the sensor, the console shows the following output:

```
Publish ok
Sending payload: {"distance":290.97,"msg":"safe"}
Publish ok
Sending payload: {"distance":290.97,"msg":"safe"}
Publish ok
Sending payload: {"distance":290.95,"msg":"safe"}
Publish ok
```

The screenshot shows the IBM Watson IoT Platform dashboard. The top navigation bar includes "Browse", "Action", "Device Types", and "Interfaces". A sidebar on the left contains various icons. The main content area shows a device with ID 2222, which is connected. The "Recent Events" tab is selected, displaying a table of events.

Event	Value	Format	Last Received
Data	{"distance":290.97,"msg":"safe"}	json	a few seconds ago
Data	{"distance":290.97,"msg":"safe"}	json	a few seconds ago
Data	{"distance":290.94,"msg":"safe"}	json	a few seconds ago

At the bottom right, a status box indicates "1 Simulation running".

## Distance when less than 100cm-alert sent to IBM CLOUD

WOKWI

SAVE

SHARE

sketch.ino

Docs

sketch.ino

diagram.json

libraries.txt

Library Manager

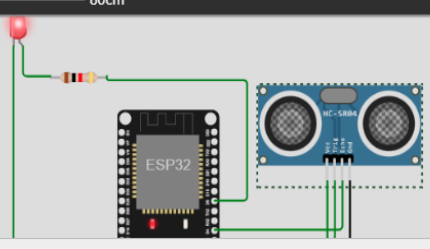
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```

Simulation

01:59.922 100%

Editing Ultrasonic Distance Sensor

Distance: 80cm



Publish ok  
Sending payload: {"distance":79.99,"msg":"alert"}  
Publish ok  
Sending payload: {"distance":79.99,"msg":"alert"}  
Publish ok  
Sending payload: {"distance":79.99,"msg":"alert"}  
Publish ok

IBM Watson IoT Platform

sneharamasubbu30@gmail.com  
ID: zfwweu

Browse Action Device Types Interfaces

Add Device

2222 Connected 1111 Device Nov 15, 2022 9:48 PM

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":79.99,"msg":"alert"}	json	a few seconds ago
Data	{"distance":79.99,"msg":"alert"}	json	a few seconds ago
Data	{"distance":80,"msg":"alert"}	json	a few seconds ago
Data	{"distance":80,"msg":"alert"}	json	a few seconds ago
Data	{"distance":79.99,"msg":"alert"}	json	a few seconds ago

1 Simulation running