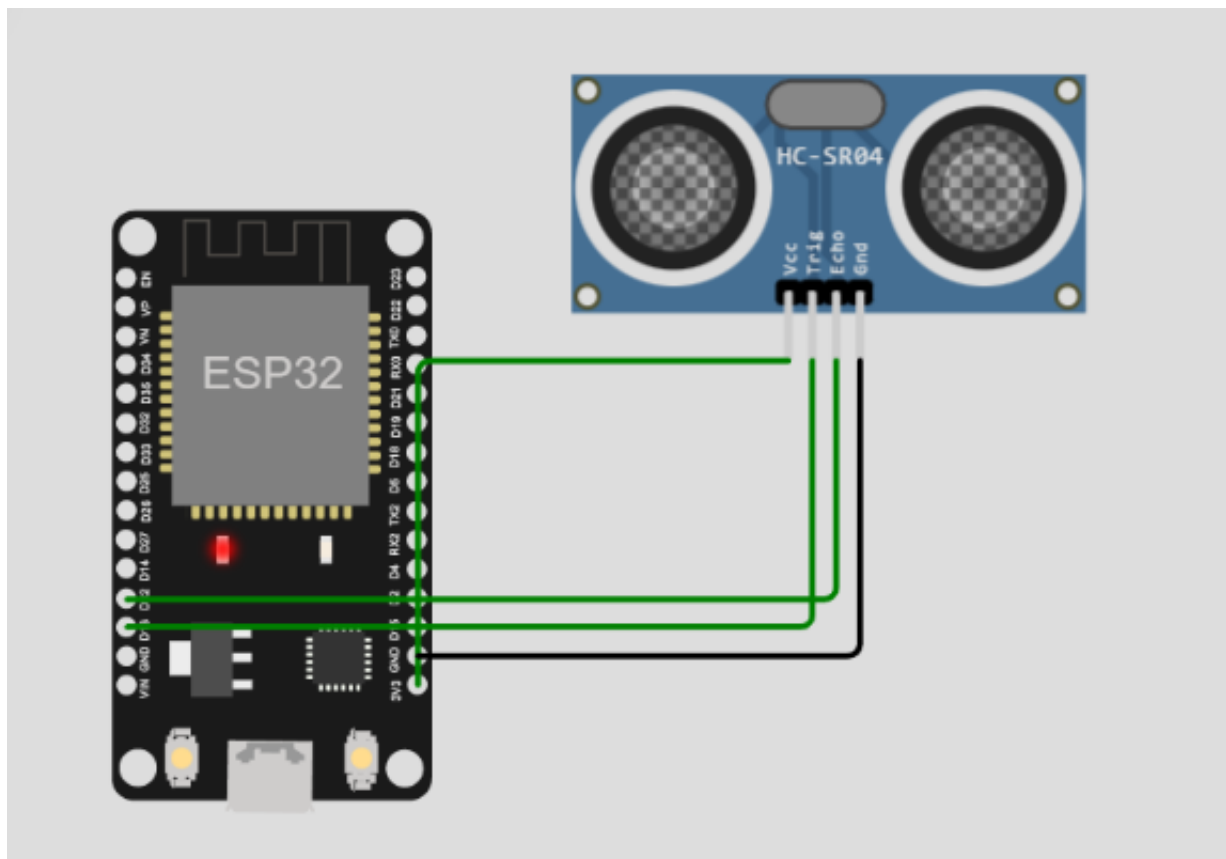


## Develop a wokwi simulation

As we have developed the project in wokwi, we have simulated using wokwi.



Publish ok

Distance in CM: 357

Sending payload: {"Alert Distance:":357.00}

Publish ok

Distance in CM: 357

Sending payload: {"Alert Distance:":357.00}

Publish ok

wokwi.com/projects/348234599030063698

IBM-EPBL/IBM-Proj... Practice | Geeksfor... Strivers AZZ DSA C... IBM Cloud Node-RED: 169.51...

WOKWI SAVE SHARE

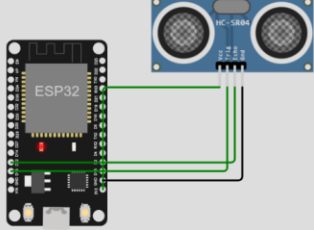
Docs K

sketch.ino diagram.json Ultrasonic.h Ultrasonic.cpp libraries.txt Library Manager

```
1 #include <WiFi.h> //library for wifi
2 #include <PubSubClient.h> //library for MQTT
3 #define ECHO_GPIO 12
4 #define TRIGGER_GPIO 13
5 #define MAX_DISTANCE_CM 100 // Maximum of 5 meters
6 #include "Ultrasonic.h"
7 Ultrasonic ultrasonic(13, 12);
8 int distance;
9 void callback(char* subscribetopic, byte* payload, unsigned int payloadLength);
10 //-----credentials of IBM Accounts-----
11 #define ORG "brn0h9" //IBM ORGANIZATION ID
12 #define DEVICE_TYPE "esp32" //Device type mentioned in ibm watson IOT Platform
13 #define DEVICE_ID "2019504512" //Device ID mentioned in ibm watson IOT Platform
14 #define TOKEN "4JZT2WJbfNSU0+eRmF" //Token
15 String data3;
16 float h, t;
17 //----- Customise the above values -----
18 char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; // Server Name
19 char publishTopic[] = "iot-2/evt/Data/fmt/json"; // topic name and type of event perform a
20 char subscribetopic[] = "iot-2/cmd/command/fmt/String"; // cmd REPRESENT command type AND
21 char authMethod[] = "use-token-auth"; // authentication method
22 char token[] = TOKEN;
23 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID; //client id
24 //-----
25 WiFiClient wificlient; // creating the instance for wificlient
26 PubSubClient client(server, 1883, callback, wificlient); //calling the predefined client
27 void setup() // configuring the ESP32
28 {
29   Serial.begin(115200);
30   delay(10);
31   Serial.println();
```

Simulation

01:43.179 89%



Publish ok  
Distance in CM: 357  
Sending payload: {"Alert Distance:":357.00}  
Publish ok  
Distance in CM: 357  
Sending payload: {"Alert Distance:":357.00}  
Publish ok

**PNT2022TMID35869**