

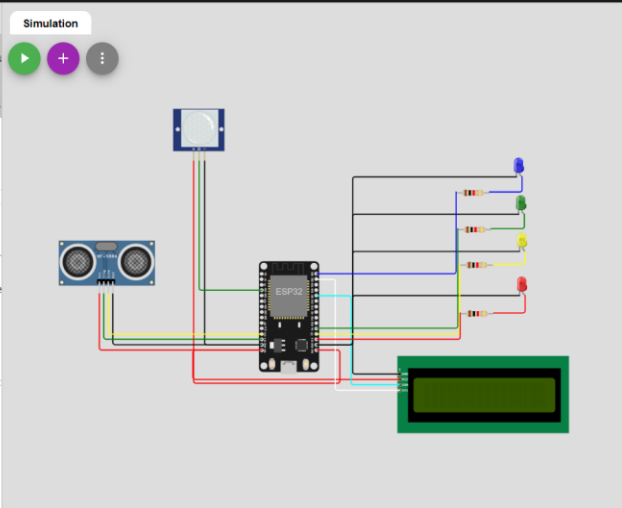
## Simulation Output For The Code

WOKWI

sketch.ino

```
1 #include <WiFi.h> // library for wifi
2 #include <PubSubClient.h> // library for MQTT #include <LiquidCrystal_I2C.h> LiquidCrystal
3 lcd(0x27, 20, 4);
4
5 WiFiClient wificlient; // creating instance for wificlient PubSubClient client(server, 1
6
7 #define ECHO_PIN 12 #define TRIG_PIN 13 float dist;
8
9 void setup()
10 {
11   Serial.begin(115200); pinMode(LED_BUILTIN, OUTPUT);
12   pinMode(TRIG_PIN, OUTPUT); pinMode(ECHO_PIN, INPUT);
13   //pir pin pinMode(4, INPUT);
14
15   //ledpins pinMode(23, OUTPUT); pinMode(2, OUTPUT); pinMode(4, OUTPUT); pinMode(15, OUTPUT
16
17   lcd.init(); lcd.backlight(); lcd.setCursor(1, 0); lcd.print(""); wificlient.connect(); mqttConnec
18 }
19
20
21 float readcmCH()
22 {
23   digitalWrite(TRIG_PIN, LOW); delayMicroseconds(2); digitalWrite(TRIG_PIN, HIGH); delayMic
24   duration * 0.034 / 2;
25 }
26
27 void loop()
28 {
29
30
31   lcd.clear();
```

Simulation



code for data tra...docx

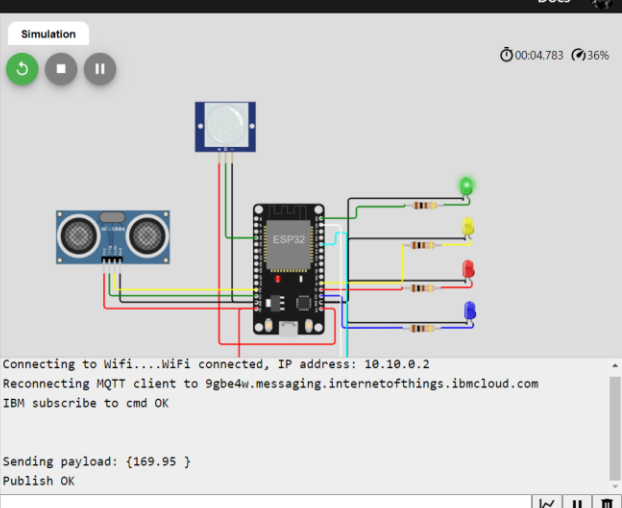
Show all

WOKWI

esp32-blink.ino

```
1 #include <WiFi.h> // library for wifi
2 #include <PubSubClient.h> // library for MQTT
3 #include <LiquidCrystal_I2C.h>
4 #include <json.h>
5 LiquidCrystal_I2C lcd(0x27, 20, 4);
6
7 //----- credentials of IBM Accounts -----
8
9 #define ORG "9gbe4w" // IBM organisation id
10 #define DEVICE_TYPE "SWSMSC" // Device type mentioned in ibm watson iot pl
11 #define DEVICE_ID "ibmproject" // Device ID mentioned in ibm watson iot plat
12 #define TOKEN "SUN441t66-Pq)0rk5X" // Token
13
14 //----- customise above values -----
15
16 char server[] = ORG ".messaging.internetofthings.ibmcloud.com"; // server na
17 char publishTopic[] = "iot-2/evt/data/fmt/json"; // topic na
18 char topic[] = "iot-2/cmd/led/fmt/String"; // cmd. Repr
19 char authMethod[] = "use-token-auth"; // authenti
20 char token[] = TOKEN;
21 char clientId[] = "d:" ORG ":" DEVICE_TYPE ":" DEVICE_ID; //client id
22
23 //-----
24
25 WiFiClient wificlient; // creating i
26 PubSubClient client(server, 1883, wificlient);
27
28 #define ECHO_PIN 12
29 #define TRIG_PIN 13
30 float dist;
31 String data3;
```

Simulation



Connecting to Wifi...WiFi connected, IP address: 10.10.0.2  
Reconnecting MQTT client to 9gbe4w.messaging.internetofthings.ibmcloud.com  
IBM subscribe to cmd OK

Sending payload: {169.95 }  
Publish OK

00:04.783 36%

code for data tra...docx

Show all