

# MONITOR ROOMS/OFFICES OR ANY PLACES TEMPERATURE

USING WEMOS D1 AND LM35 SENSOR AND IOT PLATFORM (THINGIO.AI)



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# Best IoT Platform for Raspberry Pi, NodeMCU and ESP8266 Projects

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SIGNUP TO GET INSTANT ACCESS.

Name

Email address

Password

Retype Password

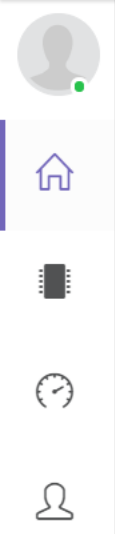
Contact Number\*

I'm not a robot



I am continue with Google account

Then as your wish... 😊



# Projects

+ Create new project

Search By Project Name

**LM35** ⚙️

ID : 5bece60e4139ed3c65cf1d61 Nov 15, 2018

View Project

Here I am already done with this project so it's showing LM35 .

So you have to create new project.

**Support**

Need help with something? Leave us a message and we'll follow up as soon as we can.

Type your message...

Chat ⚡ by Drift



# Projects

+ Create new project

Search By Project Name

### Create A Project

Project Name

Create

## LM35

ID : 5bece60e4139ed3c65cf1d61 Nov 15, 2018

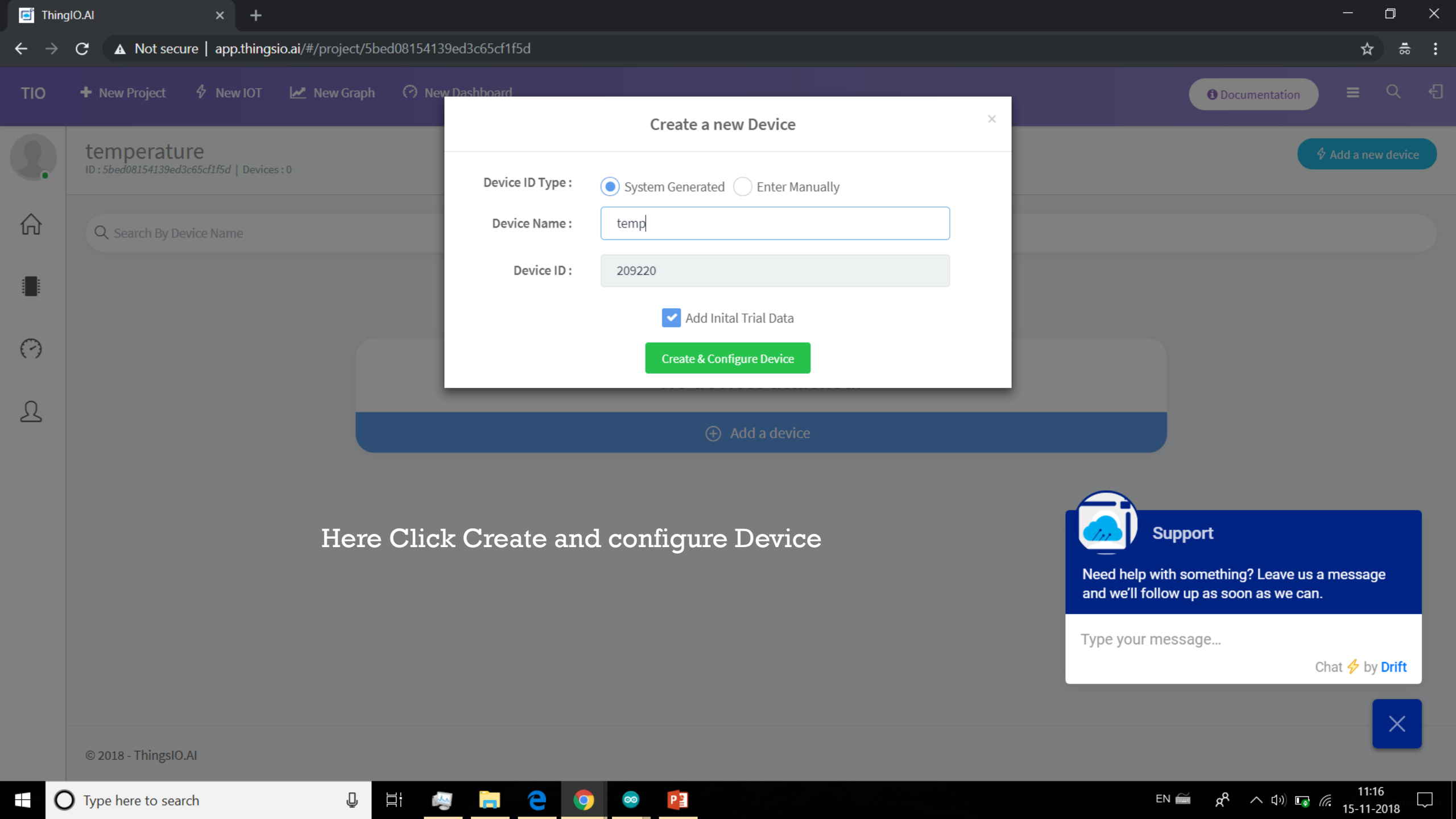
View Project

### Support

Need help with something? Leave us a message and we'll follow up as soon as we can.

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### Create a new Device

Device ID Type :  System Generated  Enter Manually

Device Name :

temp

Device ID :

209220

Add Initial Trial Data

Create & Configure Device

Here Click Create and configure Device



Support

Need help with something? Leave us a message and we'll follow up as soon as we can.

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# Configure Device - 209220

## General

Device ID  
209220

Created - Nov 15, 2018  
Updated - Nov 15, 2018

Energy Parameter\*

Transformation\*


Argument\*

Aggregate

### Parameters

celc	decimal	<input type="button" value="x"/>
fehr	decimal	<input type="button" value="x"/>

And then click on Update Device



**Support**

Need help with something? Leave us a message and we'll follow up as soon as we can.

Type your message...

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# Configure Device - 209220

## General

Device ID  
209220

Created - Nov 15, 2018  
Updated - Nov 15, 2018

Energy Parameter\* celc

Transformation\* Multiply

Argument\* 1

Aggregate

## Parameters

decimal [X]

decimal [X]

**Device updated successfully**

OK

Update Device Close

**Support**

Need help with something? Leave us a message and we'll follow up as soon as we can.

Type your message...

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Device - temp  
Device ID : 209220 | Project : temperature

Quick Analysis ▾ Sample Codes Send Trial Data ~ Create Graph ⚙️ Configure Device

### Energy (celc)

0

Units

Energy generated today

celc

Here, you have to get your own code which is in sample code in nodumcu in lm35.

And also set your wifi credential.

And upload that code in your wemos d1 or any microcontroller which having inbuilt esp8266 module.

### Data Point

Nov 15, 2018, 11:12:20 AM

60 x

85 y

### Last 5 data

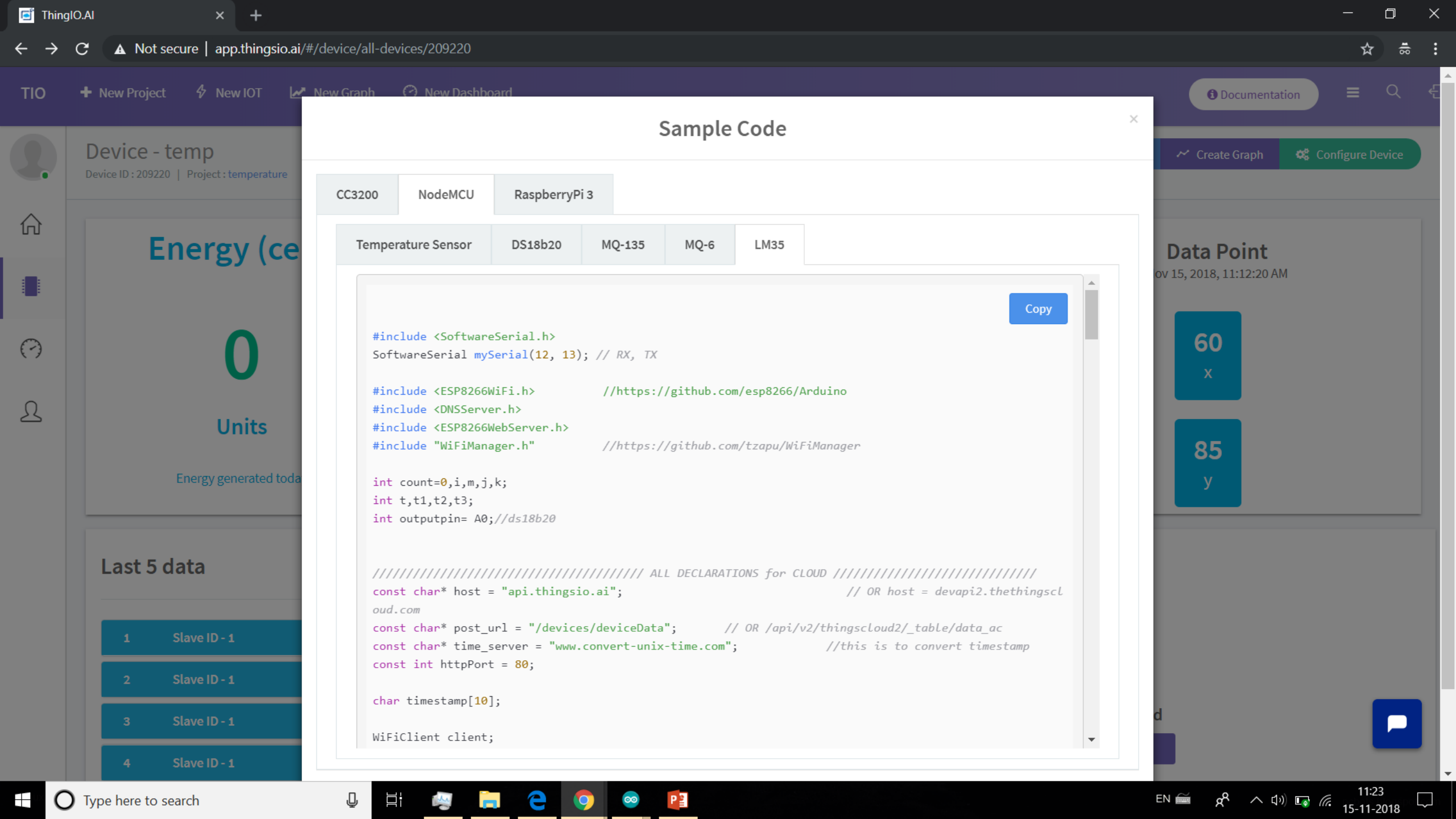
Refresh

1	Slave ID - 1	Nov 15, 2018, 11:12:20 AM
2	Slave ID - 1	Nov 15, 2018, 11:16:19 AM
3	Slave ID - 1	Nov 15, 2018, 11:15:19 AM
4	Slave ID - 1	Nov 15, 2018, 11:14:19 AM

### Device Graphs

No Graphs Created

Create Graph



## Sample Code

CC3200

NodeMCU

RaspberryPi 3

Temperature Sensor

DS18b20

MQ-135

MQ-6

LM35

Copy

```

#include <SoftwareSerial.h>
SoftwareSerial mySerial(12, 13); // RX, TX

#include <ESP8266WiFi.h>           //https://github.com/esp8266/Arduino
#include <DNSServer.h>
#include <ESP8266WebServer.h>
#include "WiFiManager.h"         //https://github.com/tzapu/WiFiManager

int count=0,i,m,j,k;
int t,t1,t2,t3;
int outputpin= A0;//ds18b20

//////////////////////////////////// ALL DECLARATIONS for CLOUD //////////////////////////////////////
const char* host = "api.thingsio.ai";           // OR host = devapi2.thethingscloud.com
const char* post_url = "/devices/deviceData";   // OR /api/v2/thingscloud2/_table/data_ac
const char* time_server = "www.convert-unix-time.com"; //this is to convert timestamp
const int httpPort = 80;

char timestamp[10];

WiFiClient client;

```

### Device - temp

Device ID : 209220 | Project : temperature

# Energy (ce

# 0

## Units

Energy generated toda

### Last 5 data

1 Slave ID - 1

2 Slave ID - 1

3 Slave ID - 1

4 Slave ID - 1

Documentation

Create Graph

Configure Device

### Data Point

ov 15, 2018, 11:12:20 AM

60  
x

85  
y



Type here to search

11:23  
15-11-2018



LM35\_ThighsIO

```

int pos = line.indexOf("\"timestamp\"");          //search for "\"timestamp\"" from beginning of response got and copy all data after that , it'll be your timestamp
if (pos >= 0)
{
    int j = 0;
    for(j=0;j<10;j++)
    {
        timestamp[j] = line[pos + 12 + j];
    }
}
}

////////////////////////////////////

void setup()
{
    Serial.begin(115200);    //(19200,SERIAL_8E1) - data size = 8 bits , parity = Even , stop bit = 1bit
mySerial.begin(115200);
    WiFiManager wifiManager;

wifiManager.setAPCallback(configModeCallback);

if(!wifiManager.autoConnect(" ", " "))          //wifiManager.autoConnect("AP-NAME", "AP-PASSWORD"); (OR) wifiManager.autoConnect("AP-NAME"); only ID no password (OR) wifiManag
{
    Serial.println("failed to connect and hit timeout");    //control comes here after long time of creating Access point "NodeMCU" by NodeMCU and still it has not connected
    //reset and try again, or maybe put it to deep sleep
    ESP.reset();
    delay(1000);
}

//if you come here you have connected to the WiFi
Serial.println("connected... :");

```

**You have to set your own WiFi SSID and Password.**

Save Canceled.

```

Archiving built core (caching) in: C:\Users\khush\AppData\Local\Temp\arduino_cache_366731\core\core_esp8266_esp8266_d1_CpuFrequency_80,VTable_flash,FlashSize_4M1M,LwIPVariant_v2mss536,Debug_Disabled,DebugLevel_
Linking everything together...
"C:\Users\khush\AppData\Local\Arduino15\packages\esp8266\tools\xtensa-lx106-elf-gcc\1.20.0-26-gb404fb9-2/bin/xtensa-lx106-elf-gcc" -CC -E -P -DVTABLES_IN_FLASH "C:\Users\khush\AppData\Local\Arduino15\packages\es
"C:\Users\khush\AppData\Local\Arduino15\packages\esp8266\tools\xtensa-lx106-elf-gcc\1.20.0-26-gb404fb9-2/bin/xtensa-lx106-elf-gcc" -Wl,-Map "C:\Users\khush\AppData\Local\Temp\arduino_build_255003/LM35_Thighs
"C:\Users\khush\AppData\Local\Arduino15\packages\esp8266\tools\esptool\0.4.13/esptool.exe" -eo "C:\Users\khush\AppData\Local\Arduino15\packages\esp8266\hardware\esp8266\2.4.2\bootloaders/eboot/eboot.elf" -bo "C
Using library SoftwareSerial at version 1.0 in folder: C:\Users\khush\AppData\Local\Arduino15\packages\esp8266\hardware\esp8266\2.4.2\libraries\SoftwareSerial

```



```
COM8
|
*WM:
*WM: AutoConnect
*WM: Connecting as wifi client...
*WM: Using last saved values, should be faster
*WM: Connection result:
*WM: 3
*WM: IP Address:
*WM: 192.168.3.104
connected...yeey :
*WM: freeing allocated params!
temp: 9
celc: 0
fhrn: 32
connecting to api.thingsio.ai
inside get timestamp

temp: 14
celc: 1
fhrn: 33
connecting to api.thingsio.ai
inside get timestamp

timestamp received

*****

closing connection
inside ThingsCloudPost
{"device_id": 209217, "slave_id": 2,"dts":,"data":{"celc":1,"fahr":33}}
Response From Server
HTTP/1.1 400 Bad Request
Server: nginx/1.10.3 (Ubuntu)
Date: Thu, 15 Nov 2018 03:49:55 GMT
Content-Type: application/json; charset=utf-8
Content-Length: 167
Connection: keep-alive
X-Powered-By: Express
ETag: W/"a7-VIb88c6wnqmxpYxVPT/wGp4U6+M"

{"expose":true,"statusCode":400,"status":400,"body":{"\device_id\": 209217, \"slave_id\": 2,\"dts\":,\"data\":{\celc\":1,\"fahr\":33}}","type":"entity.parse.failed"}//////////////////// THE END ///////////////
temp: 9
celc: 0
fhrn: 32
<
Autoscroll
```

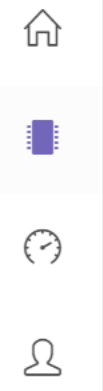
## What you see in serial monitor

No line ending 115200 baud Clear output



Device - LM35  
Device ID : 209217 | Project : LM35

Quick Analysis ▾ Sample Codes Send Trial Data Create Graph Configure Device

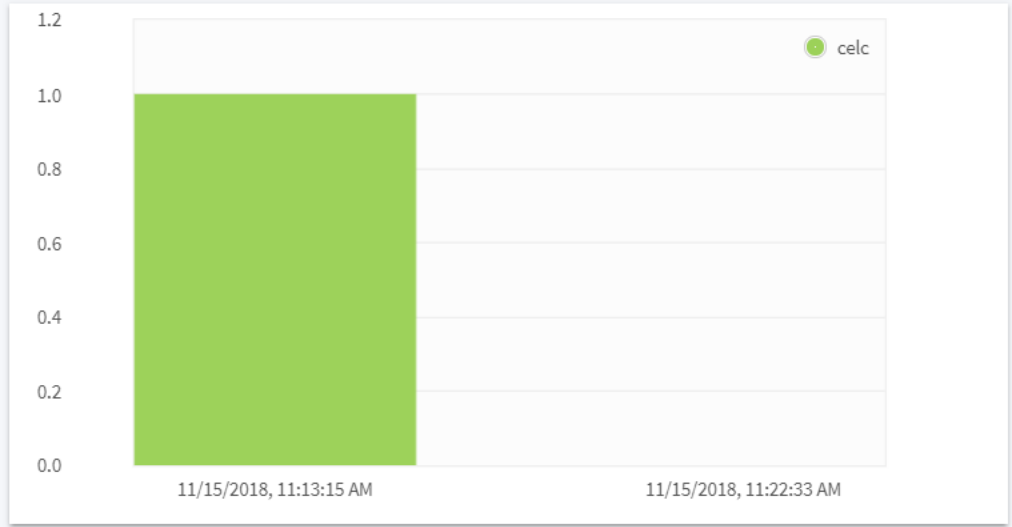


### Energy (celc)

# 135

Units

Energy generated today



### Data Point

Nov 15, 2018, 11:22:33 AM

0 celc

32 fahr

### Last 5 data

[Refresh](#)

1	Slave ID - 2	Nov 15, 2018, 11:22:33 AM
2	Slave ID - 2	Nov 15, 2018, 11:13:15 AM
3	Slave ID - 2	Nov 15, 2018, 11:13:15 AM
4	Slave ID - 2	Nov 15, 2018, 11:13:15 AM

### Device Graphs

CELc Graph

If you want to see graph then click here...

This is mine. I have lack of lm35 sensor so it is not showing real values.

Range : November 08, 2018, 11:29 AM to November 15, 2018, 11:29 AM

Download ▾

Go to Device

### CELC Graph

