



Weather Monitoring

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Components Required Wi-Fi/hotspot Esp32/Esp8266 Jumper wire **Breadboard DHT11 Sensor** thinger.io

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Steps for Connection

Connect ground and vcc pin of dht11 to ground and vin/3v3 pin of esp32 respectively. Now connect signal pin of dht11 to any Gpio

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What is thinger.io?

🗞 thinger.io

platform

Thinger.io platform is an Open Source platform for the Internet of Things, it provides a **ready to use** scalable cloud infrastructure for connecting things. Makers and companies can start controlling their devices from the internet in minutes, without worrying about the required cloud infrastructure.

Steps to setup thinger.lo

- Goto <u>https://thinger.io</u> and create a thinger account by Signing up .
 (Note: Remember the user name)
- Goto: Devices \rightarrow Add device

SED LEARNING

🚯 thinger.io	≡ 2 □		
네 Statistics	Devices		\sim
2 Dashboards			
💎 Devices	Device List 🕕		
🛢 🛛 Data Buckets	+ Add Device 🛛 Refresh	Search	
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Steps to setup thinger.lo

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Now give Device Id & Device Credentials and Click on Add Device.
 (Note: Remember Device Id and Credentials)

C	Device Details		1/2
		Pevice Configuration	
	Device Type 🚯	Generic Thinger Device (WiFi, Ethernet, GSM)	~
J	Device Id 🚯	Enter device identifier	209
	Device Credentials 🚯	Enter device credentials Ran	dom 🔎
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Open Arduino IDE and add thinger.io library. Sketch Include

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ACTIVITY BASED LEARNING

ClimaStick by Jorge Trincado Castan Arduino ClimaStick v1 & v2 library for the Thinger.io Internet of Things Platform. ClimaStick is a complete IoT developement kit, that integrates WiFi connectivity along with a set of powerful sensors to provide environmental and motion sensing. This way, it is possible to creat several connected projects easily. It is fully compatible with the Thinger in cloud infrastructure, and provides easy to use libraries that can be	
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used in the Arduino IDE. More info	te
thinger.io by Alvaro Luis Bustamante Version 2.21.1 INSTALLED Arduino library for the Thinger.io Internet of Things Platform. Thinger.io is an open source platform for the Internet of Things. It will allow some comparison your things or devices for remete consistence and actuating. Working with sourceal devices like ESD8266. ESD82. Arduing Ethernet	
Arduino Wifi, Arduino MKR1000, Arduino MKR1010, Arduino Nano RP2040 Connect, Arduino Nano 33 IOT, Arduino MKRNB1500, Arduino GSM140 Arduino Yun, Adafruit CC3000, Arduino + GSM Modules, Texas Instruments CC3200, ENC28J60, LinkIt ONE. More info	0,
Select version V Install	
ThingerCore32	
Thinger.io Core32 OS Library for ESP32 based devices Thinger.io is an open source platform for the Internet of Things. It will allow connecting your things or devices for remote sensing and actuating. This library is the base firmware for Thinger Core32 devices.	





• Write code as shown for project. In **Declaration** section give USERNAME, **DEVICE ID** and DEVICE_CREDENTIAL within double quotation same as given in thinger.io account. Now write down your ssid and password

(Wi-Fi name and password) within double guotation.

#include <ThingerESP32.h>
#include <WiFi.h>
#include <DHTesp.h>

#define USERNAME " "
#define DEVICE_ID " "
#define DEVICE CREDENTIAL " "

```
const char* ssid = " ";
const char* password = " ";
ThingerESP32 thing(USERNAME, DEVICE_ID, DEVICE_CREDENTIAL);
```

```
DHTesp dht;
int val;
```

float temperature,humidity;



• Initialization section: Here to send signal from sensor to thinger.io platform ">>" symbol is used. Here,"dh11" is Resource name and "temperature" & "humidity" are **Value** that is going to used in widget section in thinger.io. Resource and Value can be changed according to user.





void loop() {
 thing.handle();
 temperature = dht.getTemperature();
 humidity = dht.getHumidity();

Now setup the dashboard in thinger.io platform. Goto thinger.io account and Dashboards → Add dashboard. Now give the Dashboard id, name and description.

Dashboards / Add						
Dashboard Details					/4	
Dashboard id 🕄	Enter a dashboard id					
Dashboard name 🕚	Enter dashboard name					
Dashboard description 🕕	Enter dashboard description					
✓ Add Dashboard						

Click on Dashboards and then click on available dashboard id.

SED LEARNING

Widget Settings

 Now to add widget turn ON the sliding switch and than click on add widget. Fill the widget settings box to get the desired output.

Widget		0~
Title 🚯	Widget Title	
Subtitle 🚯	Widget Subtitle	
Link To 🚯	 Select Dashboard 	
Show Update 🚯		2000
Show Fullscreen 🚯		
Background 🚯	+ #ffffff	
Туре 🚯	Select widget type 🗸 🗸	
		9.9
	Save Cancel	



ASSESSMENT TIME.....

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