

CONFIGURE TASMOTA COLOR DISPLAY with ScanLabs Dongle

v1.0 02-25-2025

Following this basic manual, you will be able to build a colour-graphic display based on the [TASMOTA](#) project.

The Colour Display connects via Wi-Fi and MQTT(s) to the MQTT broker you are using and will display major battery pack info.



Total project cost is about 15\$ (for the display & enclosure)

Time to make it: 10 minutes (if you follow this manual ;-)

Time to print stl: 2-3h (depending on you 3D printer)

What you need:

- 1 or many* [ScanLabs dongle/s](#) to extract DALY/JK BMS data and Publish to an MQTT server
- 1 or many** [ESP32-2432S028r](#) -> Colour Display based on ESP32 – 2.8inches
- 1 or many* Enclosure for the Colour Display
 - [Free STL option 1](#)
 - [Free STL option 2](#)
 - [Free STL option 3](#)

Why 1 or many?

*One display can show multiple Battery Pack on multiple Dashboards. Configure each battery pack to publish data on a dedicated Dashboard

**Being an MQTT based display you can build as many as you want, all of them will show the same info even on different places on the world or the house (where Wi-Fi connectivity to internet is available)

QUICK INTRO to [TASMOTA](#) is an open source project that allows creating graphical Dashboard.

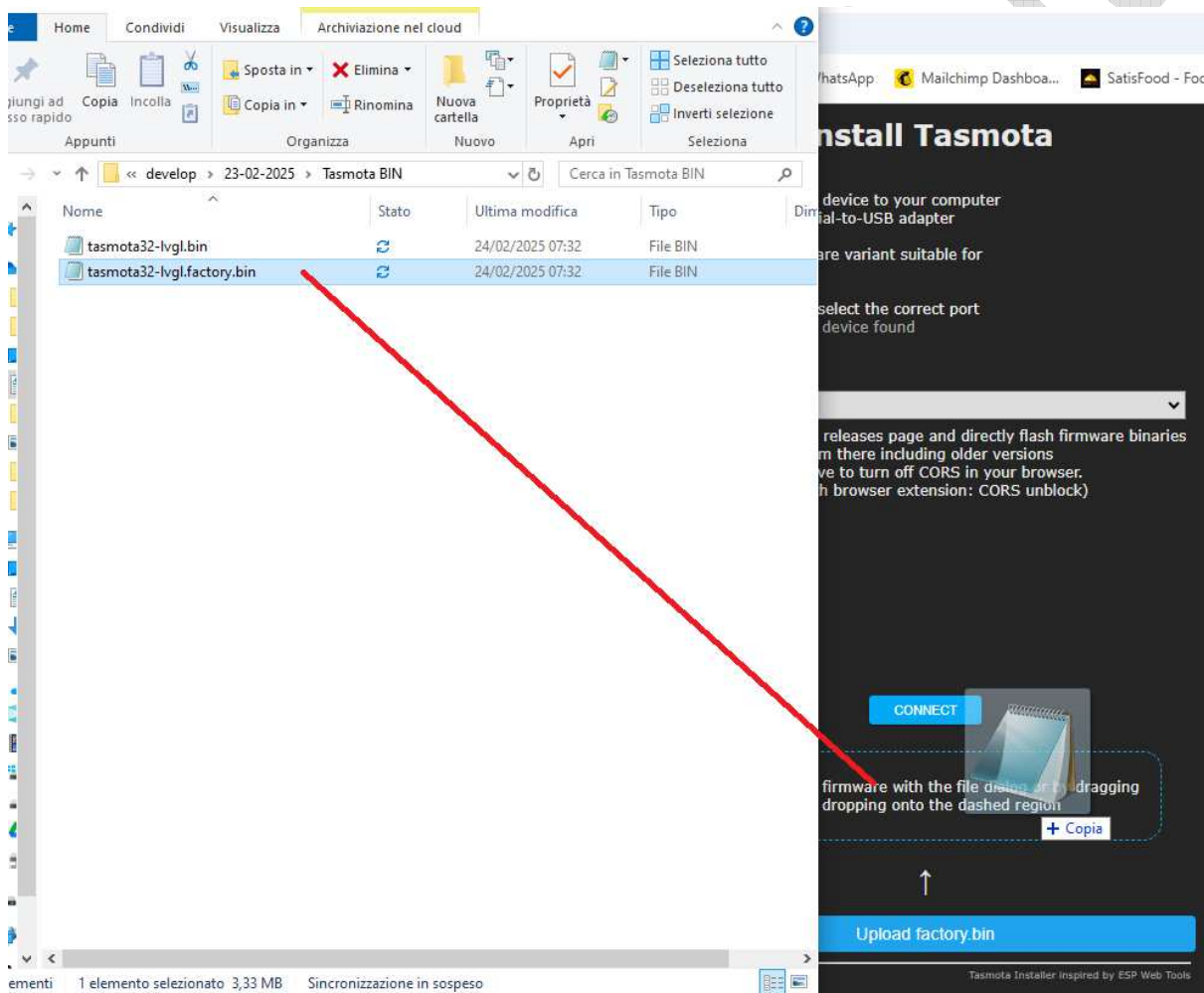
Multiple display are supported, even bigger in inches. You can adapt this job to different panels. What you need is to get inspired by the "*pages.json*" dashboard configuration and by the "*autoexec.be*" Berry script file for unpack MQTT and show the data.

Add your stuffs and customize your dashboard.

Let us MAKE IT!

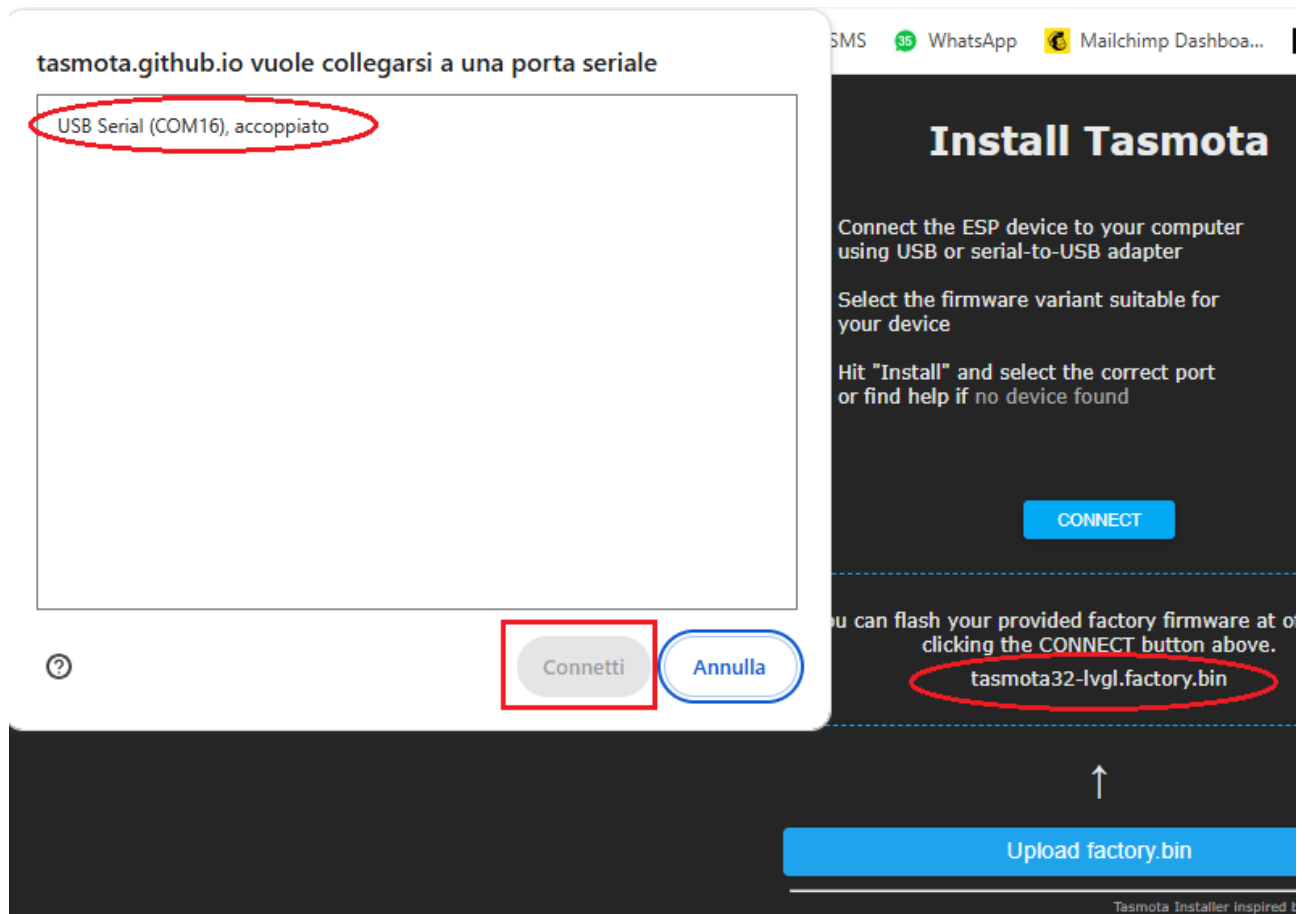
STEP-BY-STEP GUIDE

- 1- Download the [TASMOTA](http://sidweb.nl/tasmota32/) binaries from <http://sidweb.nl/tasmota32/> go to the section "*Factory binaries to be used for initial flashing using esptool*". Download [tasmota32-lvgl.factory.bin](#)
We need LVGL graphic libraries for this project.
TESTED on Tasmota firmware **14.5.0.1** on ESP32
- 2- Open <https://tasmota.github.io/install/>
- 3- Drag & drop **tamosta32-lvgl.factory.bin** into the BOX like in the image

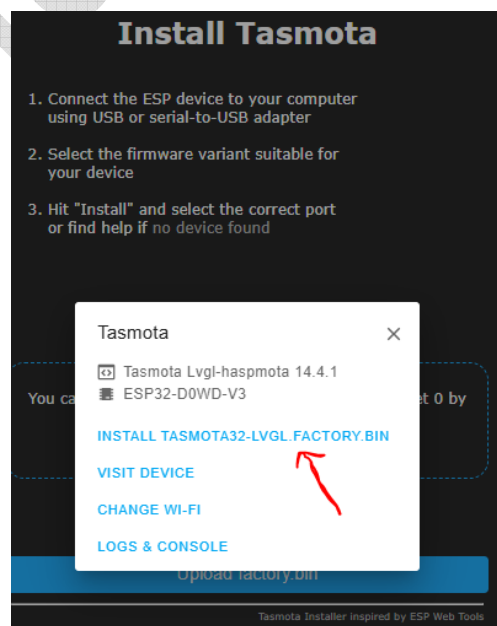


- 3- connect [ESP32-2432S028r](#) via USB type B or C to your computer

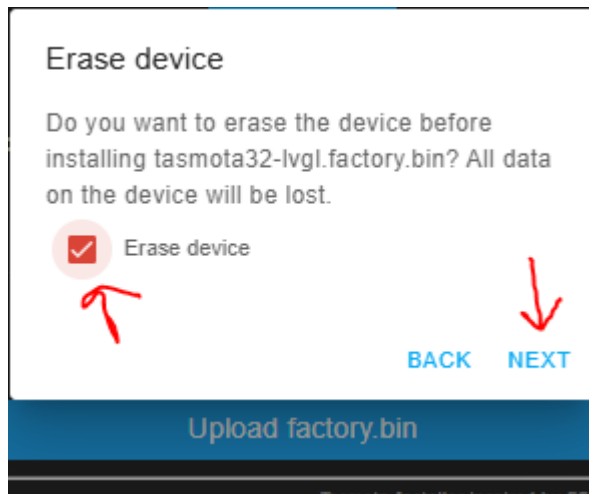
- 4- Press on "CONNECT" on the [TASMOTA](#) WebPage
- 5- A popup open with the list of the COM Port detected.
 - a. Select the one belonging to the display.
 - b. Press on "Connect"



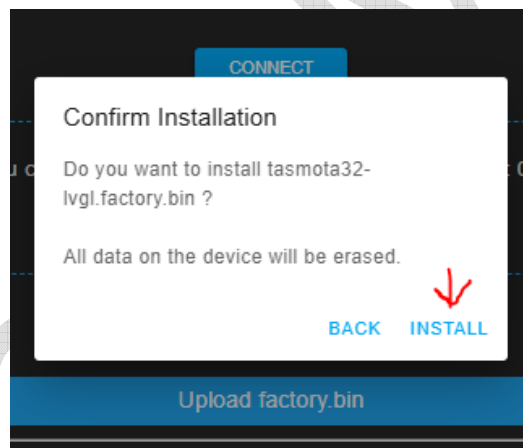
- 6- When the next popup appears select "INSTALL TASMOTA32-LVGL.FACTORY.BIN"



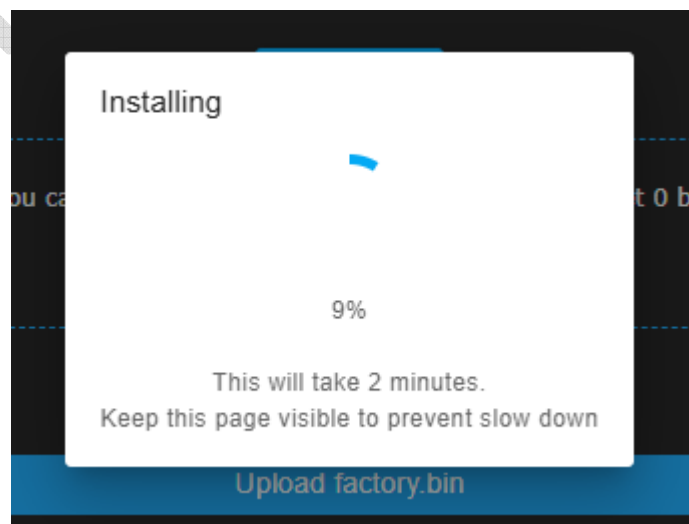
- 7- Select "ERASE ALL"
- 8- Select "NEXT"



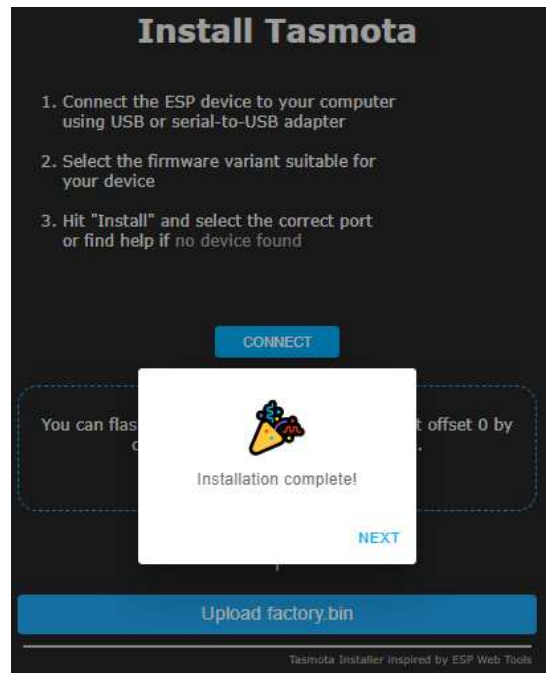
- 9- Click on "INSTALL"



- 10- Be patient, it takes about 2 minutes to upload the firmware on the display

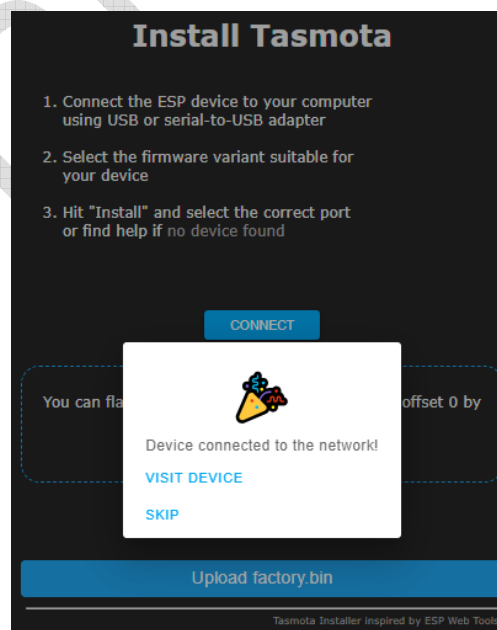


11- If all goes right you'll land here – Press "NEXT"



12- You will asked for your WiFi SSID and Password. Enter it

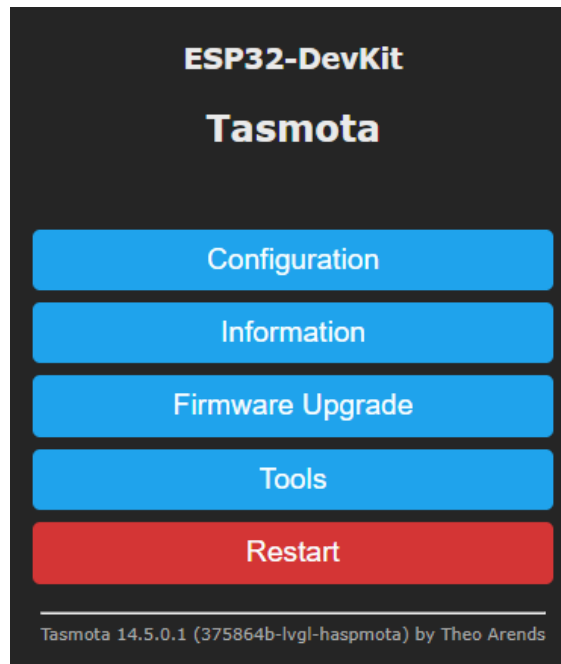
13- If you were not wrong adding your wifi credentials teh following message is show: "Device connected to the network !"
Click on "VISIT DEVICE"



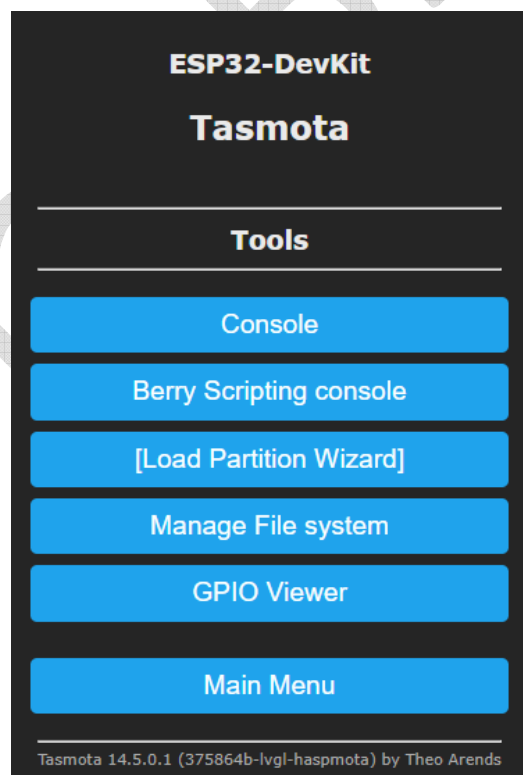
14- The following web page open

Take note of the Display IP Address assigned by your router on the top of the web page

Click on "TOOLS"



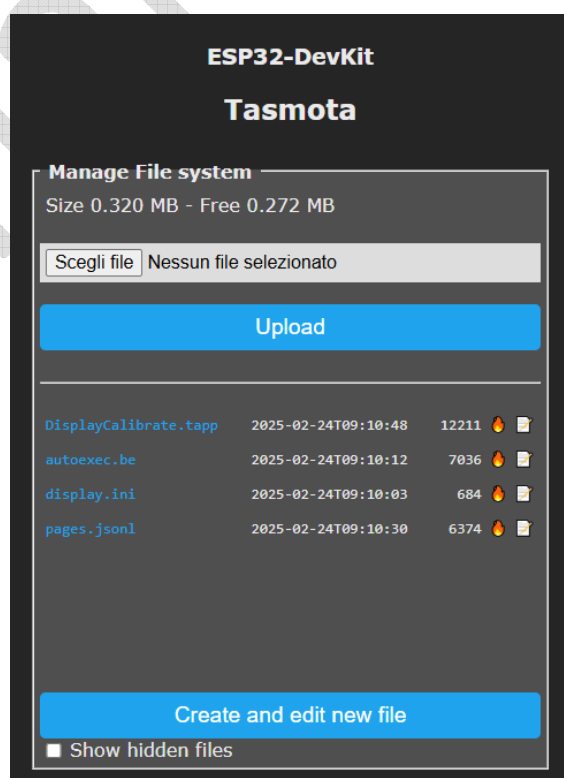
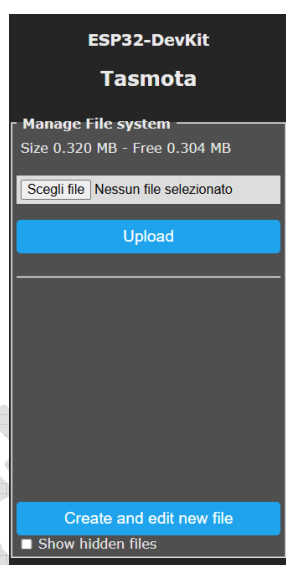
15- Click on "Manage File system"



16- From [HERE](#) download the file **“ScanLabs Tasmota.zip”** unzip it .

Inside you find :	“autoexec.bat” “display.ini” “pages.jsonl” “DisplayCalibrate.tapp”
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17- “Select File” each of the files and “Upload” all of them



18- Go to : "Tools -> Main Menu -> Configuration -> Other"

a. COPY the following:

```
{"NAME":"ESP32-2432S028","GPIO":[6210,1,800,0,448,0,1,1,672,704,736,768,449,1,1,1,0,992,1,1,0,737,480,1,0,0,0,0,705,10944,4704,1,0,0,0,673],"FLAG":0,"BASE":1}
```

b. Place the string on the "Template" box

c. Click on "Activate"

d. Click on "SAVE" at the bottom

ESP32-DevKit

Tasmota

Other parameters

Template

```
{"NAME":"ESP32-DevKit","GPIO":[1,1,1,1
```

Activate

Web Admin Password

....

HTTP API enable

MQTT enable

Device Name (Tasmota)

Tasmota

Friendly Name 1 (Tasmota)

Tasmota

Emulation

None

Hue Bridge multi device

Save

19- At this point, rebooting the display you should be able to see the DASHBOARD.
If not repeat points from pt 16.

20- From MAIN menu click on “**CONFIGURATION**” -> “**MQTT**”

Here you need to copy EXACTLY the data you have added into the [ScanLabs](#) dongle.

The screenshot shows the 'MQTT CONFIG' interface. On the left, there are input fields for 'MQTT Server' (with a 'Test MQTT' button), 'MQTT PORT: 1883', 'MQTT User Name: mqtt1', 'MQTT Password: [masked]', and 'MQTT Client ID: Paolo1'. There is also a checkbox for 'Enable MQTT: [checked]'. On the right, the 'Tasmota' panel shows 'MQTT parameters' with fields for 'Host ()', 'Port (1883)', 'MQTT TLS' (checked), 'Client (DVES_B1B330)', 'User (DVES_USER)', 'Password [masked]', 'Topic = %topic% (tasmota_B1B330)', and 'Full Topic (%prefix%/%topic%)'. A 'Save' button is at the bottom. Orange arrows point from the left fields to the right panel, and a red arrow points to the 'Topic' field.

21- In the “Topic” field set “tsmt”

22- On the [ScanLabs](#) dongle : “**SETTINGS**” -> “**DISPLAY**” enable “**TASMOTA DISPLAY**” + “**SUBMIT**”
NOTE: Keep DISPLAY DASHBOARD = 1 (multiple pages will be supported soon)

The screenshot shows the 'REMOTE MQTT DISPLAY CONFIG' interface. It has a navigation bar with 'Status', 'Battery', 'Monitor', and 'Settings'. Below, there are checkboxes for 'TASMOTA DISPLAY: [checked]' and 'OPENHASP DISPLAY: [unchecked]'. A red arrow points to the 'TASMOTA DISPLAY' checkbox. There is a text field for 'DISPLAY DASHBOARD: 1' and a 'Submit' button. At the bottom, there are three buttons: 'BACK to CONFIG', 'GENERATE openHASP CONFIG', and 'DOWNLOAD DISPLAY MANUAL'.

23- Et voila' !