



SMART ENERGY METER

Group 17

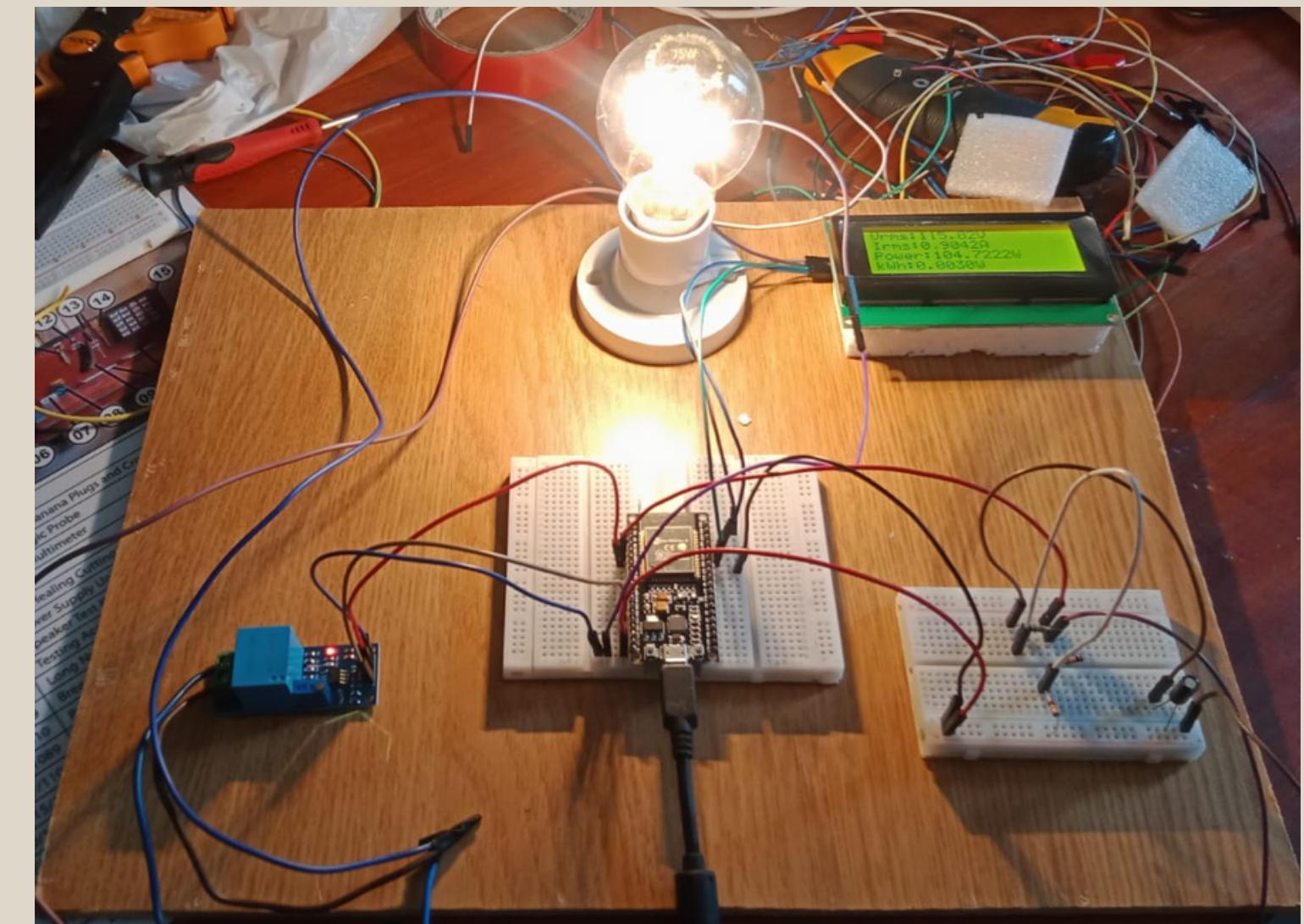
E/18/017 Aarah J.F.

E/18/177 Khan A.K.M.S.

E/18/304 Rishad N.M.

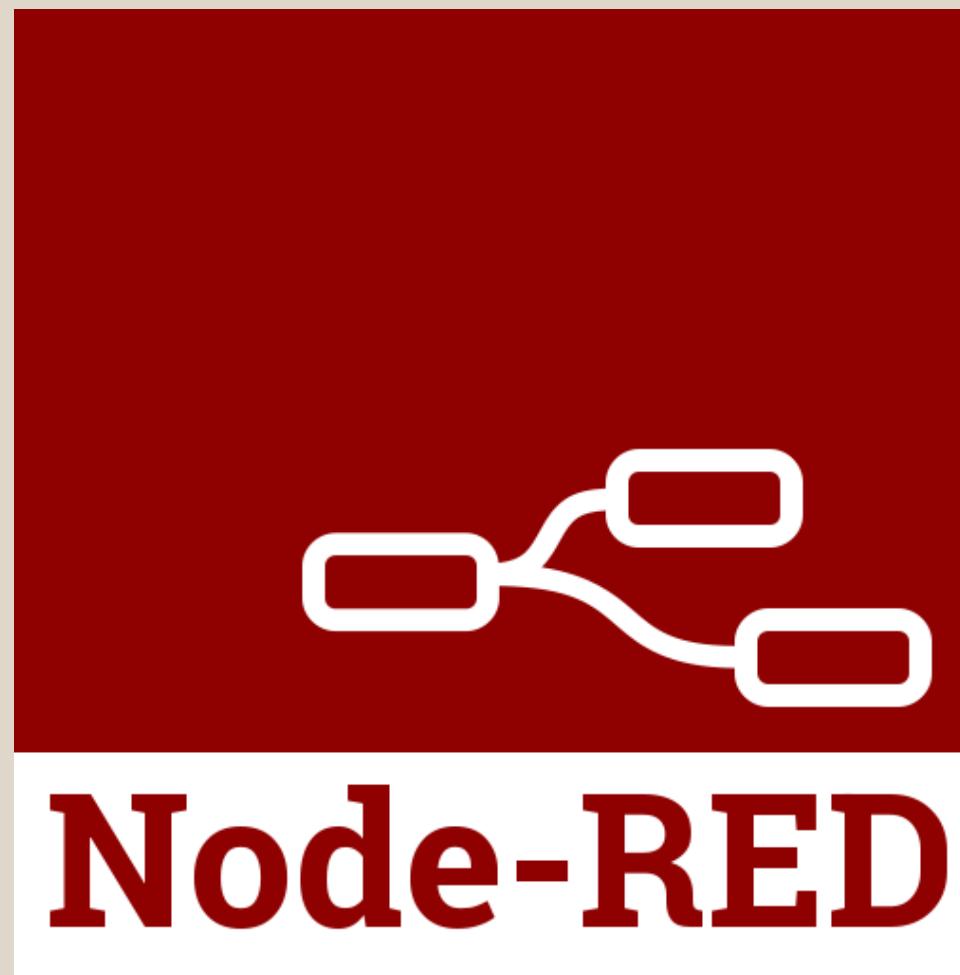
PROBLEM AND SOLUTION

- Problem: Inefficient Energy Monitoring
- Solution: Transform your energy consumption with a smart IoT energy meter for precise monitoring and cost-saving insights.





TECHNOLOGY STACK



NodeRed



MySql



Mqtt Mosquitto
broker



TECHNOLOGY STACK



PlatformIO **Core 4**

Platformio



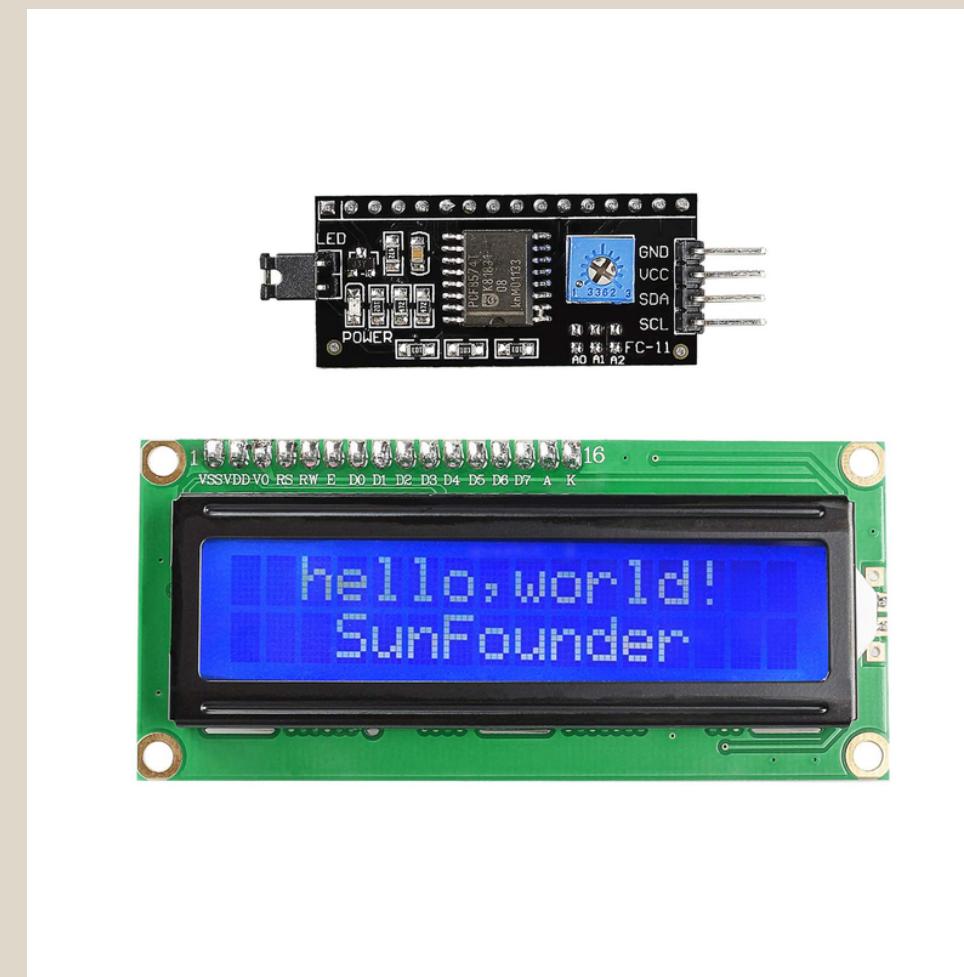
JSON



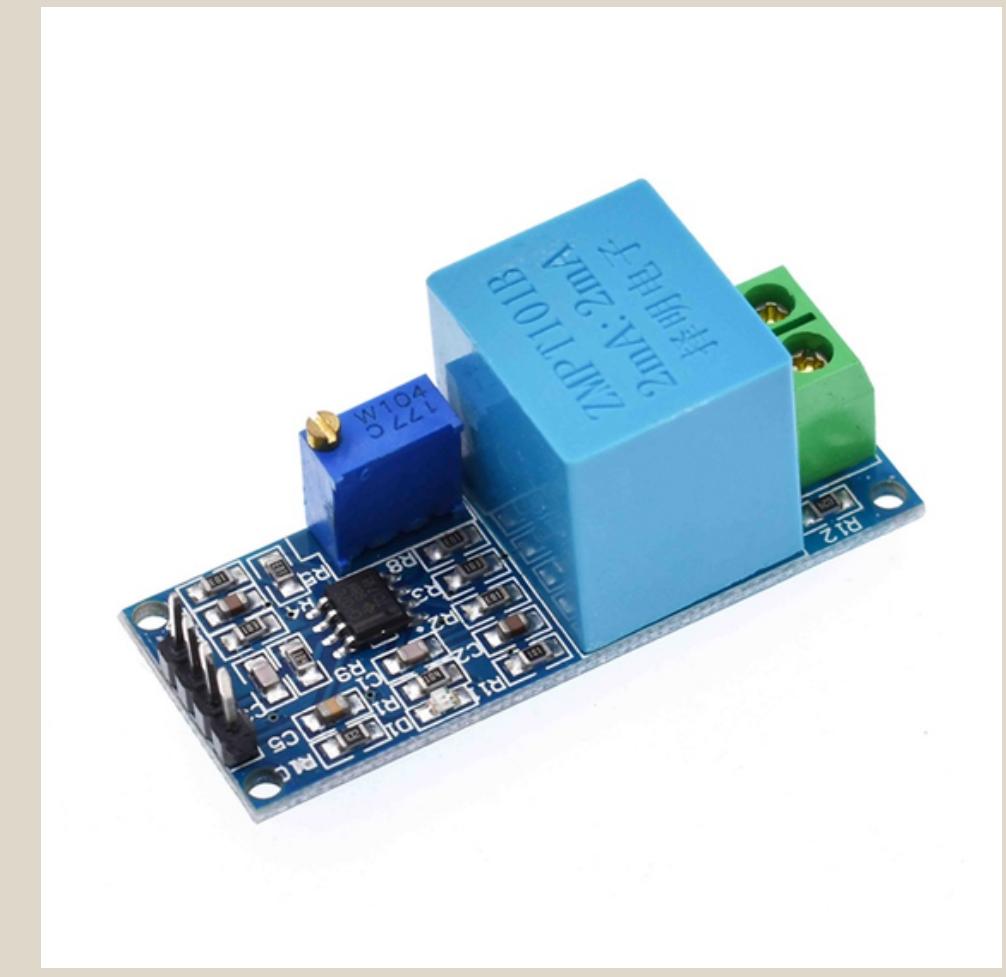
HARDWARE NODES



Esp 32



LCD Display



ZMPT101B Voltage
sensor



HARDWARE NODES



SCT013 Current
Sensor

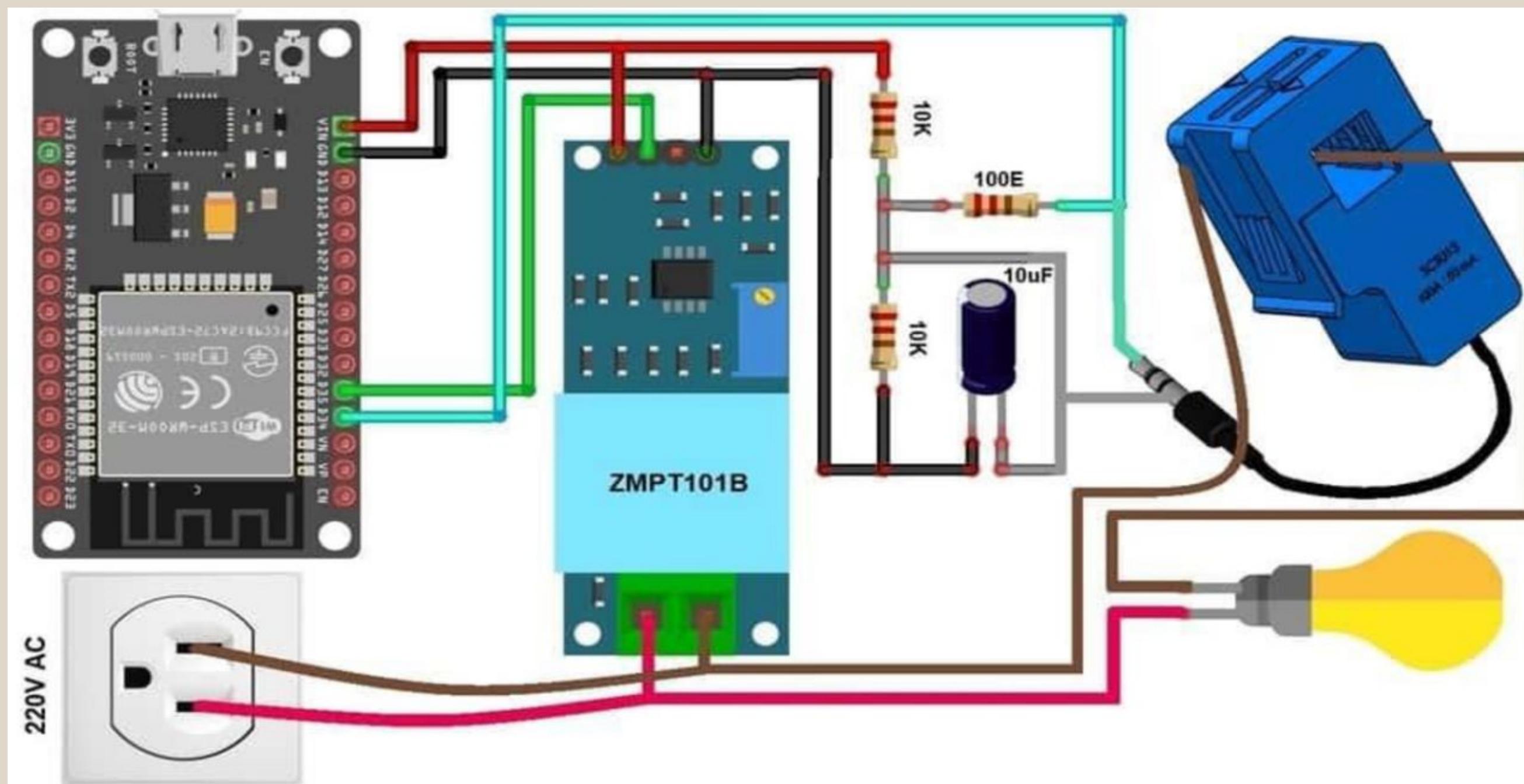


Resistors



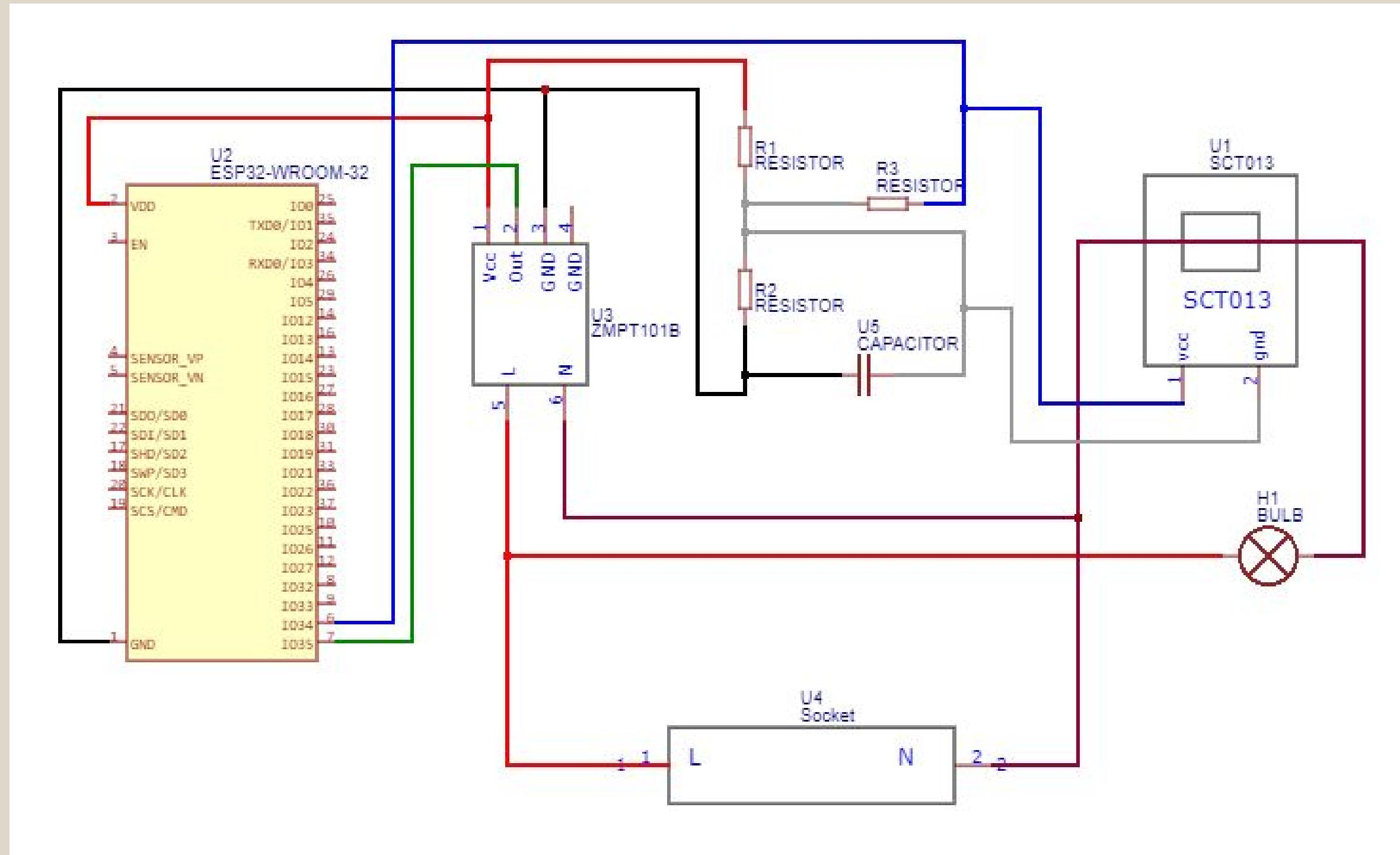
Capacitors

CIRCUIT DIAGRAM



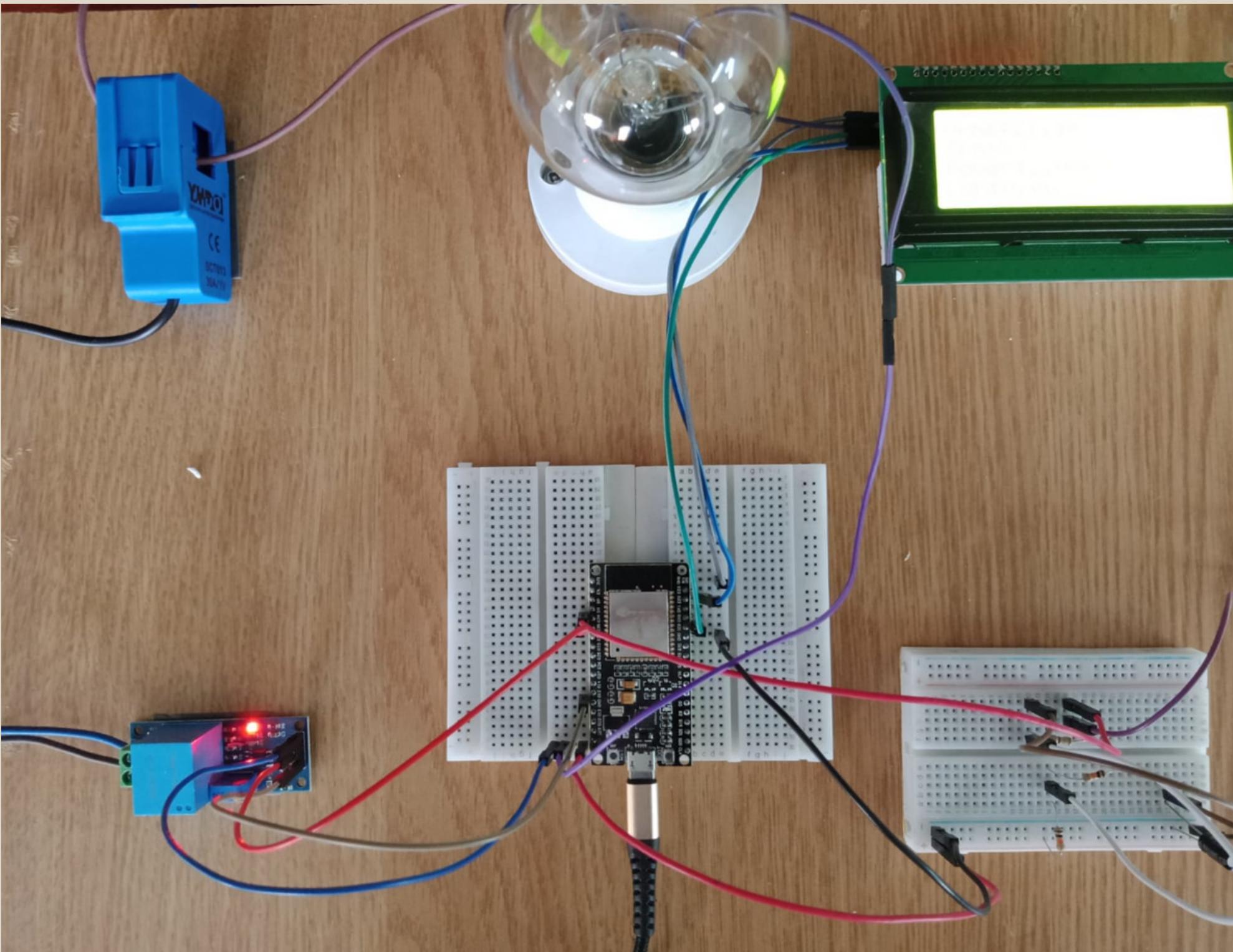


CIRCUIT DIAGRAM



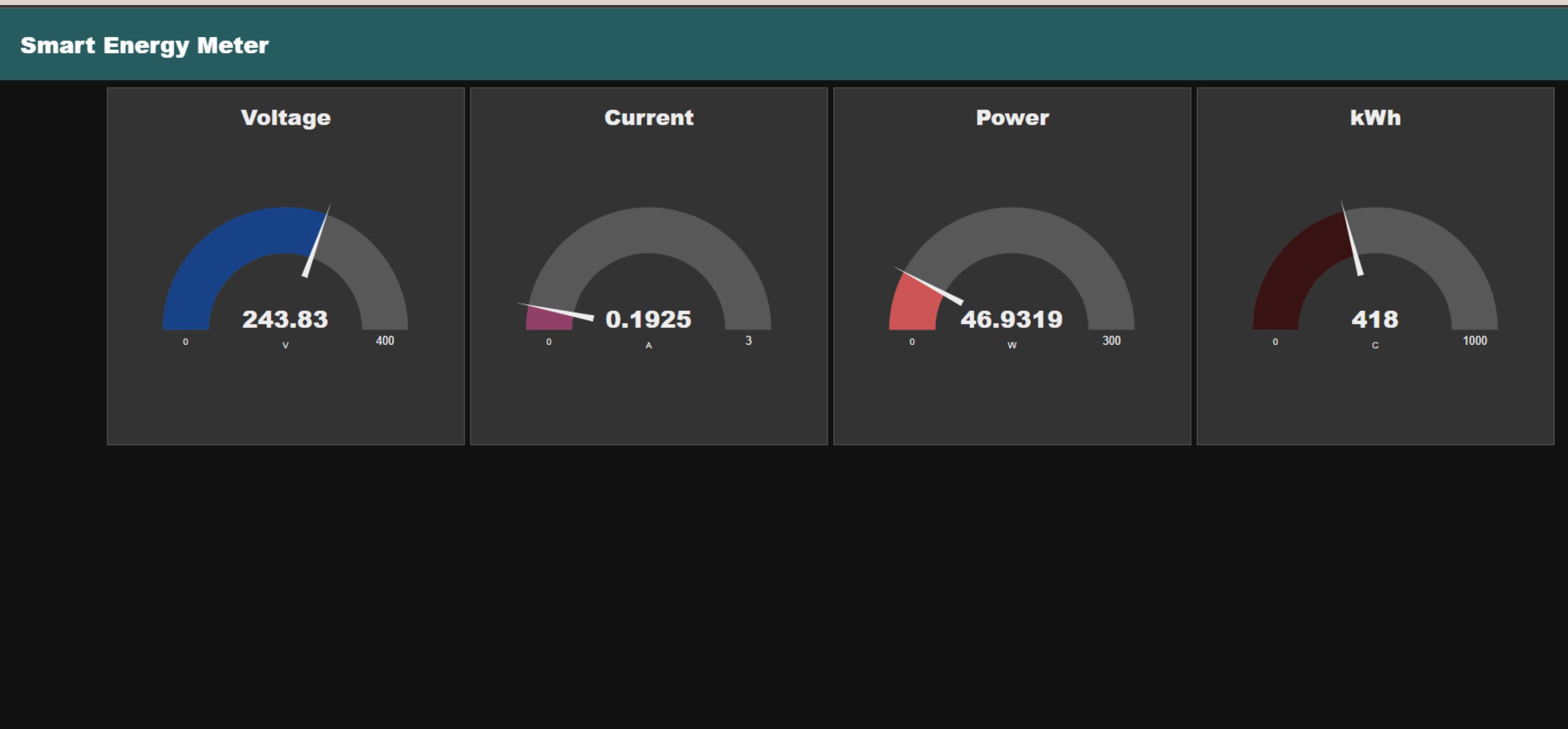


CONNECTED HARDWARE NODES





DASHBOARD



Recent Favorites

- + New
- + demo
- energy_meter
 - + New
 - + data
- + information_schema
- + java_app
- + mysql
- + performance_schema
- + phpmyadmin
- + refhub
- + test
- + vaccination
- + vaccinations
- + _vaccinations

Server: 127.0.0.1 » Database: energy_meter » Table: data

Browse Structure SQL Search Insert Export Import

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are disabled.

Showing rows 0 - 499 (857 total, Query took 0.0032 seconds.)

```
SELECT * FROM `data`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

1 > >> | Number of rows: 500 Filter rows: Search this table

Extra options

topic	message	updatedAt
device/Voltage	18.84	2023-06-30 16:39:54
device/Voltage	18.84	2023-06-30 16:39:54
device/Current	0.0815	2023-06-30 16:39:54
device/Current	0.0815	2023-06-30 16:39:54
device/Power	1.5354	2023-06-30 16:39:54
device/Power	1.5354	2023-06-30 16:39:54
device/kWh	0.0	2023-06-30 16:39:54
device/kWh	0.0	2023-06-30 16:39:54
device/Voltage	20.65	2023-06-30 16:39:59
device/Voltage	20.65	2023-06-30 16:39:59
device/Current	0.1155	2023-06-30 16:39:59
device/Current	0.1155	2023-06-30 16:39:59
device/Power	2.384	2023-06-30 16:39:59
device/Power	2.384	2023-06-30 16:39:59
device/kWh	0.0	2023-06-30 16:39:59
device/kWh	0.0	2023-06-30 16:39:59
device/Voltage	22.22	2023-06-30 16:40:04

MYSQL

Thank you

Q & A