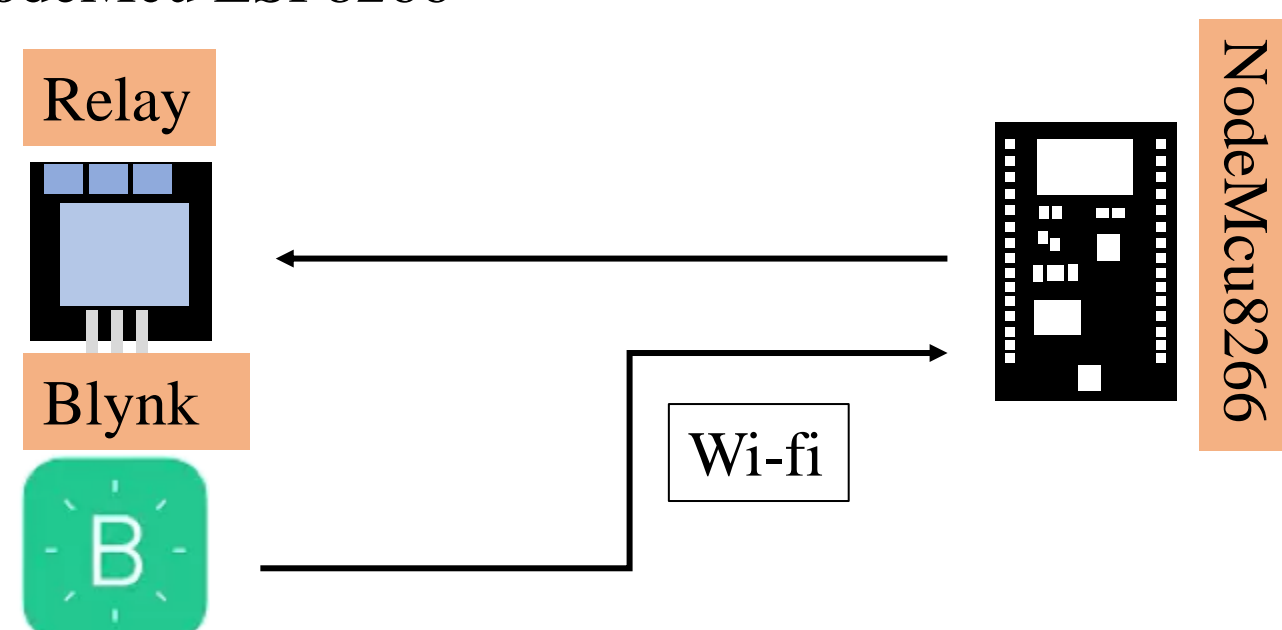


INTELLIGENT POWER STRIP TO SAVE ENERGY AND MONEY

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Abstract

Intelligent power strip to save money and energy. It used to control power strip. It is on or offed and it control by blynk application and NodeMcu ESP8266. We can control it everywhere that have wi-fi. But design it is not safety enough because the structure not suppose to put NodeMcu ESP8266

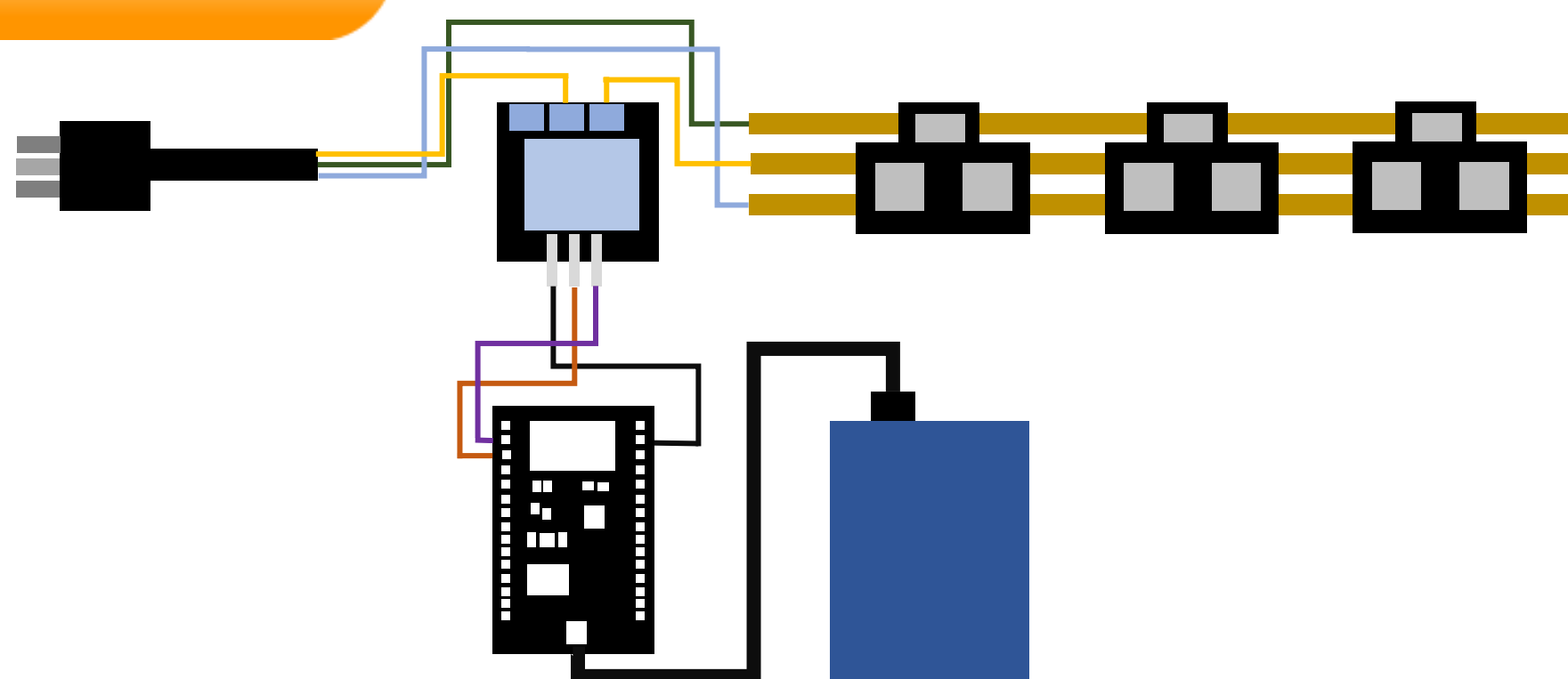


Introduction

At the present, We don't have much energy that human want to use so energy price will high. Sometimes energy overloaded. It caused many problem such as power cut or something will be on fire. Energy is very important in hospital because in many section use energy all the time such as in ICU that have many equipment use to help people. In this reason that I want to do this project and control power strip to control energy. It will reduce cause that will be on fire.



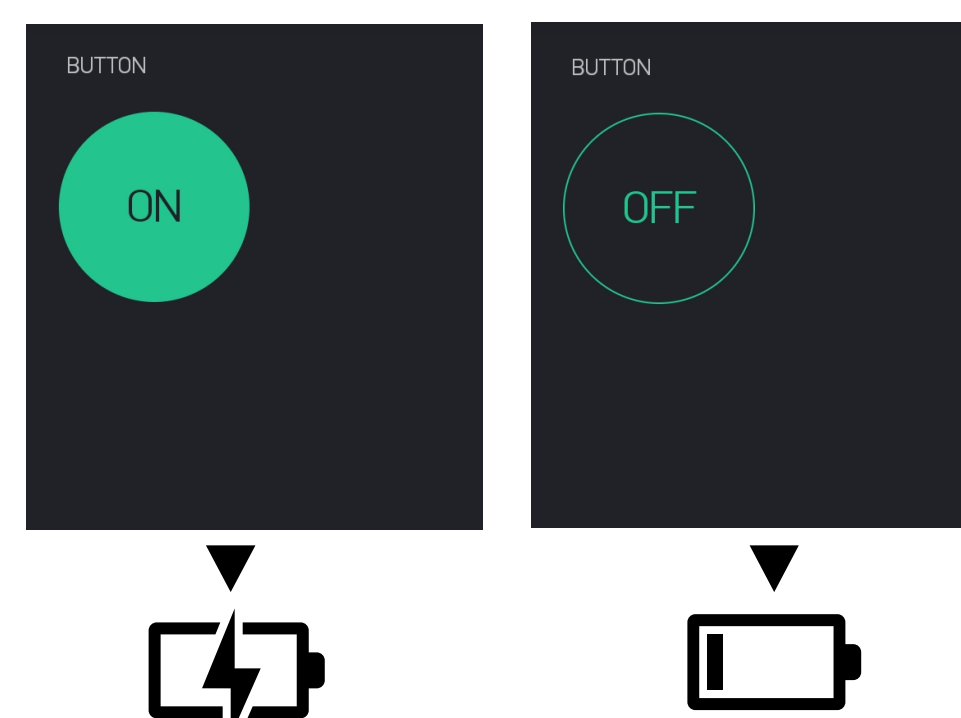
Methodology



In the first, I studied what direction of energy is flow and what line is positive line, negative line and safety line by my friend and in the internet. Next, I studied how relay work what line that relay control. Then I studied in internet how to control relay by blynk application.

I tried to assemble it and control it. In the first, I cut the lines and solder the line. Then I connected to relay and NodeMcu ESP8266. I try to control by blynk application.

Results



Result that on or off will display on and control by the blynk application.

```
File Edit Sketch Tools Help
sketch_feb13a
#define BLYNK_PRINT Serial
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>
#define ON LOW
#define OFF HIGH
int Relay1 = D1;
char auth[] = "MLQmKsPuJuPKjVPrE_fu09Yqb7wScpr2";
char ssid[] = "";
char pass[] = "";

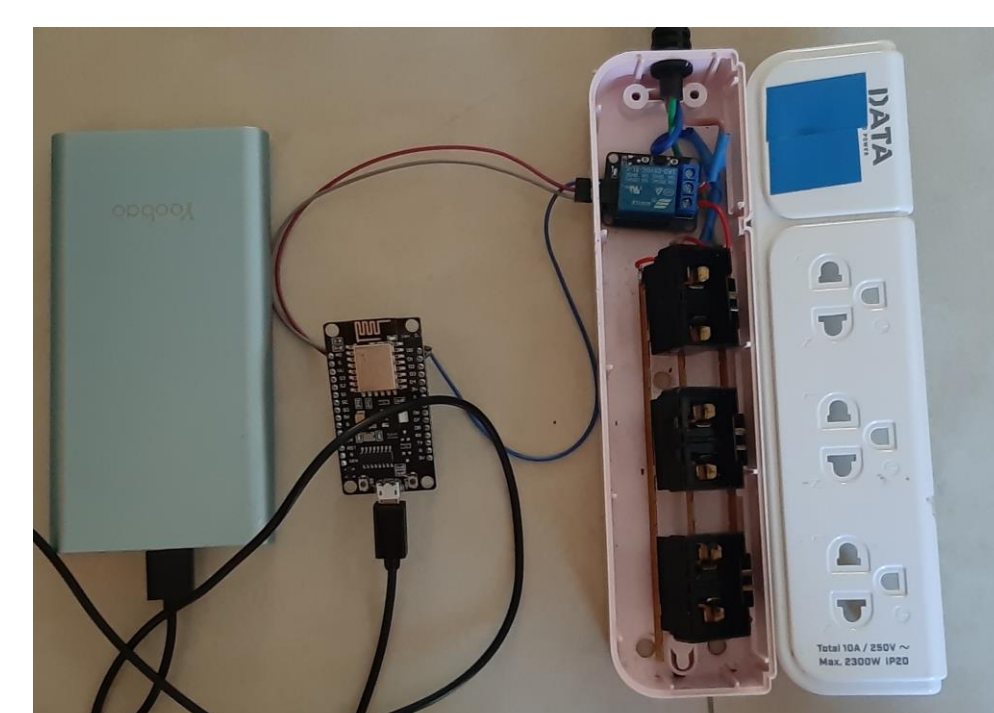
void setup()
{
  pinMode(Relay1, OUTPUT);
  Serial.begin(9600);
  Blynk.begin(auth, "A1", "12345678");
}

void loop()
{
  Blynk.run();
}
```

Conclusion

In this project. It has many error and not safety enough. And relay can't control energy more than 3 hours. After that relay will broke and can't work why in the future we need to improve about this. Such as change relay. And wire that connect to each other. In power strip I think it small and can't use in long time.

In the part of code. I think it very simple. Because it can only control by blynk application and in the future I will control by line application.



References

- <https://www.explainthatstuff.com/howrelayswork.htm>
- <https://docs.blynk.cc/>
- https://en.wikipedia.org/wiki/Power_strip