Todo 03 Buienradar
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In this document I will connect a notemcu with 3 led sensors (3 colors) to an external API

This is based on the how to provided by Harm van Vugt you can find here: https://drive.google.com/drive/folders/0B7p3-OuR5YG0dWJNTW12MFdiYUk

Step 01

Open Buienradar.ino change the following parameters to your own WiFi details.

```
//
#include <ESP8266WiFi.h>
#include <ESP8266HTTPClient.h>

const char* ssid = "Ziggo56516";
const char* password = "uM4fD}mRHbV4";
```

Step 02

In the Buienradar.ino where 3 different serial states: Het is droog!, Het regent!, Shit is aan!. I wanted to attached every state to a different led.

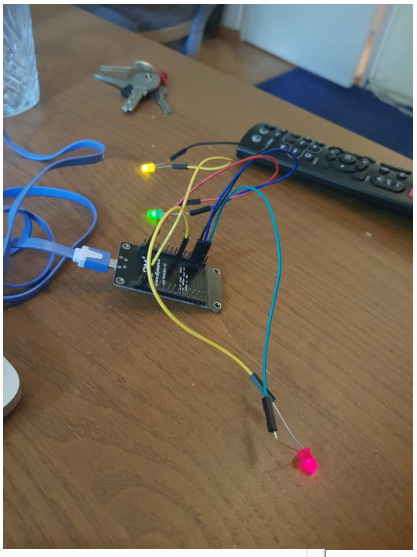
```
int redPin = D1;
int greenPin = D2;
int bluePin = D3;
```

```
//  ----- Functie kijkt naar de binnengehaalde data en stelt de kle
void evaluateRain() {
  if (rainData[0] + rainData[1] + rainData[2] <= 15) {
    //regent niet
    setColor(lgreen[0], lgreen[1], lgreen[2]);
    Serial.println("Lekker Droog");
  }  else if (rainData[0] + rainData[1] + rainData[2] < 150) {
    //regent komende half uur
    setColor(amber[0], amber[1], amber[2]);
    Serial.println("Er is regen");
  } else {
    //regent continue
    setColor(purple[0], purple[1], purple[2]);
    Serial.println("De shit is Aan!");
  }
}
```

Step 03

Eror

When I activated the program I was happy to find out that the signal from the API was legit. But all the lamps where lighting up instead of one.



```
state: 3 -> 5 (10)
add 0
aid 2
cnt

connected with Ziggo56516, channel 1
dhcp client start...
......ip:192.168.178.21,mask:255.255.255.0,gw:192.168.178.1
.
WiFi connected
Loading: http://gpsgadget.buienradar.nl/data/raintext/?lat=52.36&lon=4.91
De shit is Aan!
pm open,type:2 0
Loading: http://gpsgadget.buienradar.nl/data/raintext/?lat=52.36&lon=4.91
De shit is Aan!
```

Autoscroll Show timestamp Newline 115200 baud Clear output

Solution

I found out that within the RGB parameters changes was needed.

Buienradar_TODO_03 §

```
// 20 is de ledstrip aangesloten
int redPin = D1;
int greenPin = D2;
int bluePin = D3;

// De kleuren bepalen, pas deze aan als je andere kleuren wilt menger
int lgreen[] = {
 44, 33, 255
};
int amber[] = {
  255, 44, 33
};
int purple[] = {
  255, 232, 44
};

int rainData[] = {
  100, 200, 000, 000, 000, 000, 000, 000
};

void setup() {
  Serial.begin(115200);                // Opent de seriële communicati
  delay(10);
  WiFi.begin(ssid, password);
```

I change it to this.

Buienradar_TODO_03 §

```
// Zo is de ledstrip aangesloten
int redPin = D1;
int greenPin = D2;
int bluePin = D3;

// De kleuren bepalen, pas deze aan als je andere kleuren wilt menger
int lgreen[] = {
  0, 0, 255
};
int amber[] = {
  255, 0, 0
};
int purple[] = {
  255, 0, 0
};

int rainData[] = {
  100, 200, 000, 000, 000, 000, 000, 000
};

void setup() {
  Serial.begin(115200);               // Opent de seriële communicati
  delay(10);
  WiFi.begin(ssid, password);
```

Step 04

conclusion

It works! Now I know whenever it rains based on the light.