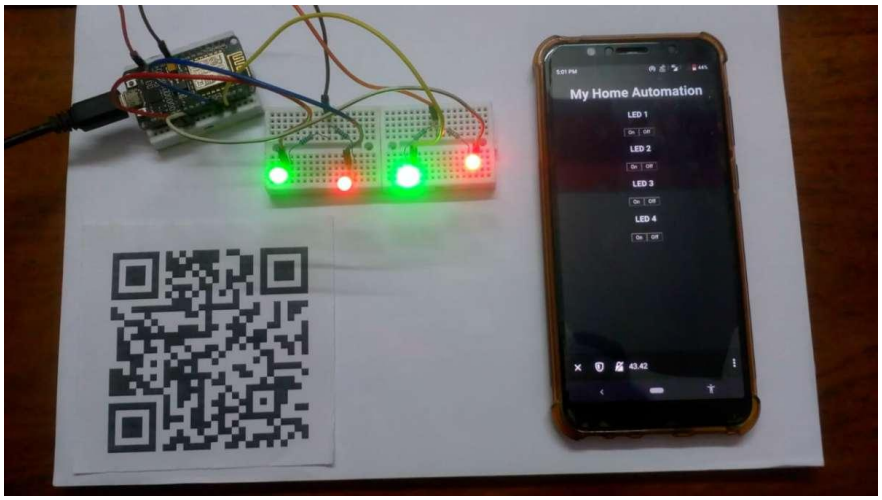
QR Code based LED Control

It is a home automation system which uses ESP8266 and its WiFi functionalities to control appliances over WiFi. The project can be accessed by anyone by scanning a QR code from a smartphone.




Components Used

1. ESP8266 WiFi Module
2. LED
3. 220 ohm resistor

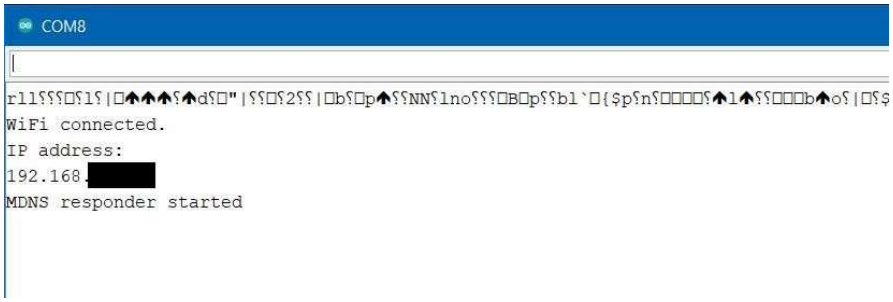
# Introduction

It is a home automation system which uses ESP8266 and its WiFi functionalities to control appliances over WiFi. The project can be accessed by anyone by scanning a QR code from a smartphone. The QR code opens the web page required to control the GPIO pins of the ESP8266.

# Make Process

We need to change the ssid and password in the code to the ssid name and password of the WiFi address of the WiFi of which the uer's smartphone and the ESP8266 will be connected.

The code once uploaded will print out the IP address of the ESP8266 in the serial monitor.




We need to use the IP address along with the web page info to generate the QR code. The QR code is entered in the form

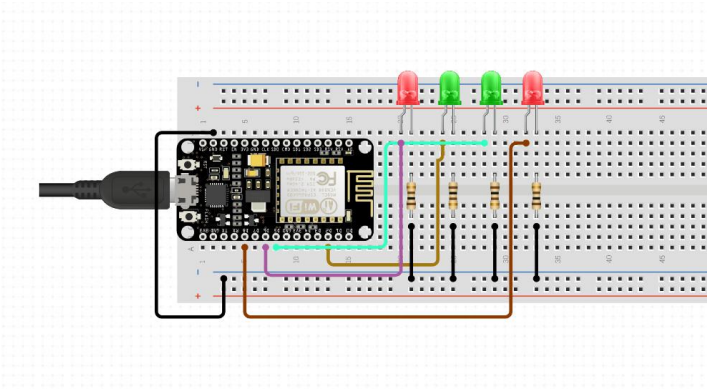
```
http://ip_address/led1/on

example : http://190.168.43.43/led1/on
```

The QR code is generated using the website https://www.the-qrcode-generator.com/

Once the QR code is generated, we can scan using any QR code scanning app on smartphone and then it opens up a web page with buttons to control the GPIOs.


# Circuit

4 LEDs are connected to the pins D2, D4, D6, D7 of the ESP8266. 4 220 ohm resistors are also connected between the -ve terminal of LED and the Ground Pin of ESP8266.



# Result & Video