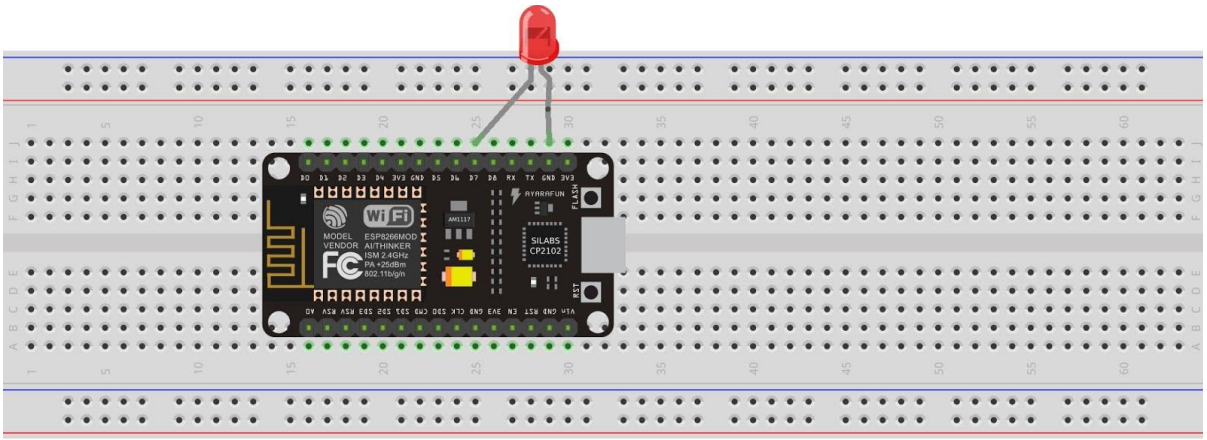
Application1: Control an LED from Web Browser

Component needed:

- Arduino NODEMCU Lua IoT ESP8266 Wifi Controller Board v3
- USB Cable (Micro-B) 80cm
- Arduino IDE
- LED

Connection:

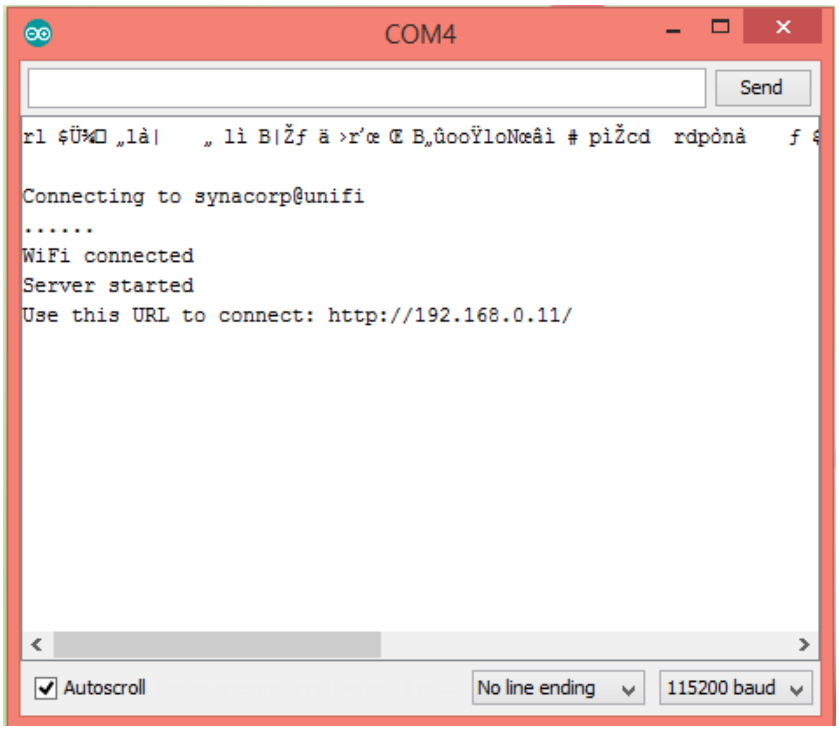


1. Connect the circuit as shown in figure above.
2. Connect your ESP8266 to Arduino IDE.
3. Open your Arduino IDE.
4. Go to files and click on the preference in the Arduino IDE. Copy the link below and paste in additional board manager.

   http://arduino.esp8266.com/stable/package_esp8266com_index.json

5. Select the right board type and COM port.
6. Upload the sketch. You can get the sketch from *Application1_Sketch.*
7. Open the serial monitor, check for the ip address that your device has connected to.

Result:



Conclusion:

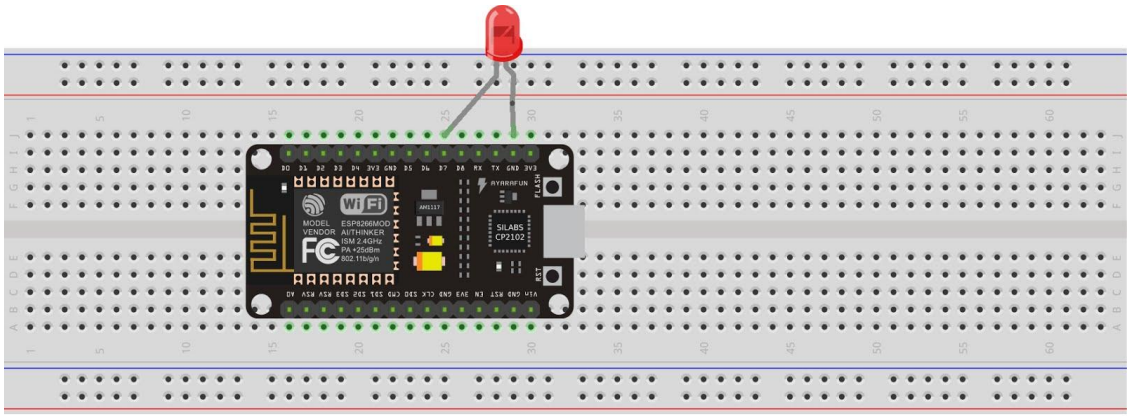
Notice that the LED will light up when click at “Turn On” in the ip address web.

Application2: Simple Led Control With Blynk and NodeMCU Esp8266 12E

Component needed:

- Arduino NODEMCU Lua IoT ESP8266 Wifi Controller Board v3
- Smart Phone with Blynk App installed
- USB Cable (Micro-B) 80cm
- Arduino IDE
- Breadboard
- LED

Connection:



Setting up Circuit

1. Connect the circuit as shown in figure above.

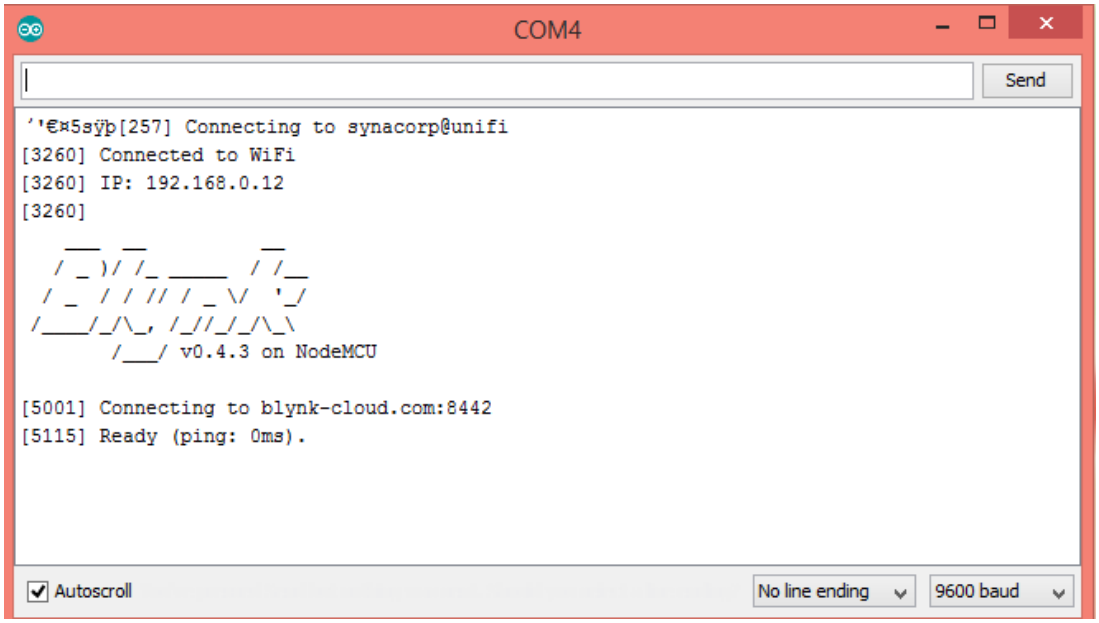
Setting up Blynk

1. First install the Blynk app from Google play store and then sign in.
2. After that press on New Project and you will get a screen.
3. Enter the name of your project.
4. Select the Board as **ESP8266.**
5. Then you will see below the authentication token no.
6. Finally click on to the **create** button.
7. Now you will get your dashboard screen. Just click on the top most button "+" on the right corner to add widgets to your project.
8. In this project we add a simple **button widget** and then configure its settings as Digital **GP13** pin.
9. Then label the Button as **ON** and **OFF** in the settings

Setting up Arduino IDE

1. Connect your ESP8266 to Arduino IDE.
2. Open your Arduino IDE.
3. Select the right board type and COM port.
4. Upload the sketch. You can get the sketch from *Application2_Sketch.*
   Note: You need to put the auth token, your ssid and password on the sketch!
5. After uploading the code, open the Blynk app in the Phone.
6. Let it connect to the internet.
7. Then you would see your dashboard with a button.
8. Press Play button on the top most right corner of the app.
9. Then you will get your result.

Result:



Off	On
	

Conclusion:

Notice that the LED will light up when click at “Turn On” in the Blynk apps on the smart phone.