New Wireless module CH340 NodeMcu V3 Lua WIFI Internet of Things development board based ESP8266 ESP-12N

Product features:

1.Have good brush the latest firmware , on the computer can be used
2.ESP8266 all IO mouth lead, direct download without having to reset
3. All open source hardware and software

ESP8266 & NodeMCU Develop Introduction

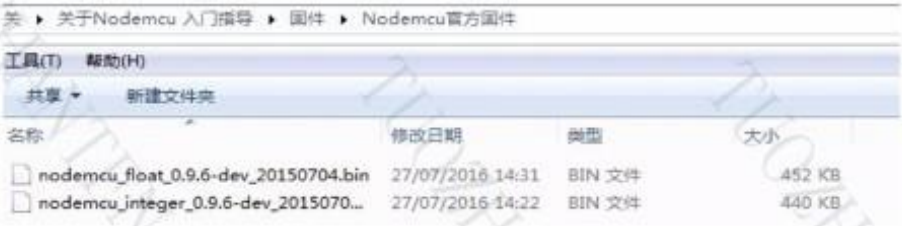
This is the tutorial to NodeMCU 1.0 development board (CP2102 / CH340 are applicable) and the lua programming design is given priority to.

Mke sure your computer have installed the USB driver （CP2102/CH340） then the device manager can find the COM .

Confirm the development board has been updated for NodeMCU firmware (NodeMCU official firmware) or you can flash your it according to the fllowing guide.

■ Part-1.Flash NodeMCU official firmware guide

1、The firmware given（you can choose either one of them）：



2、How to flash?

Open Nodemcu-firmware-flasher,choose which firmware to flash and set the address,then begin flashing. **(At the same time hold RST button and FLASH button, then release RST button first while you begin flash.Release FLASH button when you see the mac-address.USB-CH340 version can flash automatically without this way).**

■ PART-2. Use ESPlorer to test.

1、Download and install ESPlorer.

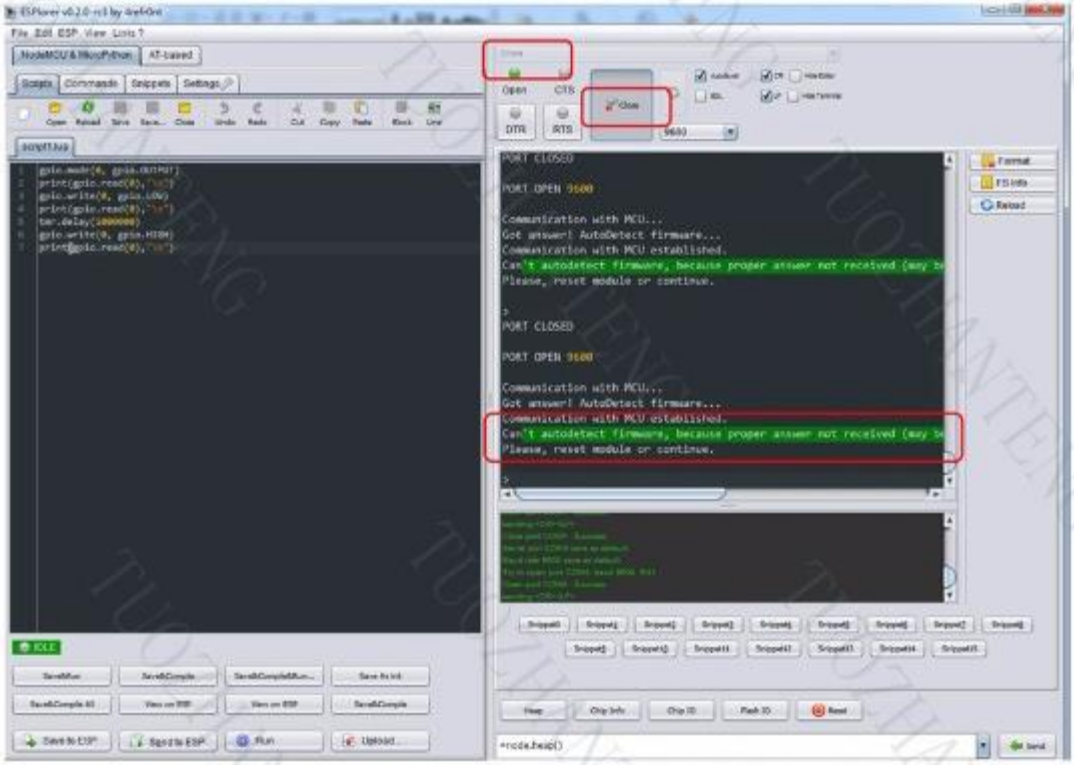
The website links：https://esp8266.ru/esplorer/

Supporting folder has a software with version installed.

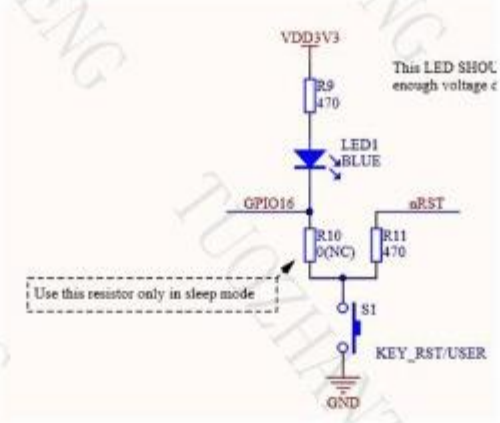
Note：ESPlorer need JAVA SE 7 or above.

2、Run ESPlorer ， set Serial baud rate 9600.

Then press the OPEN to Nodemcu connection.



nodeMCU has one LED（near the Micro USB），We can take this LED for test. Focous on the Nodemcu schematic about this LED：

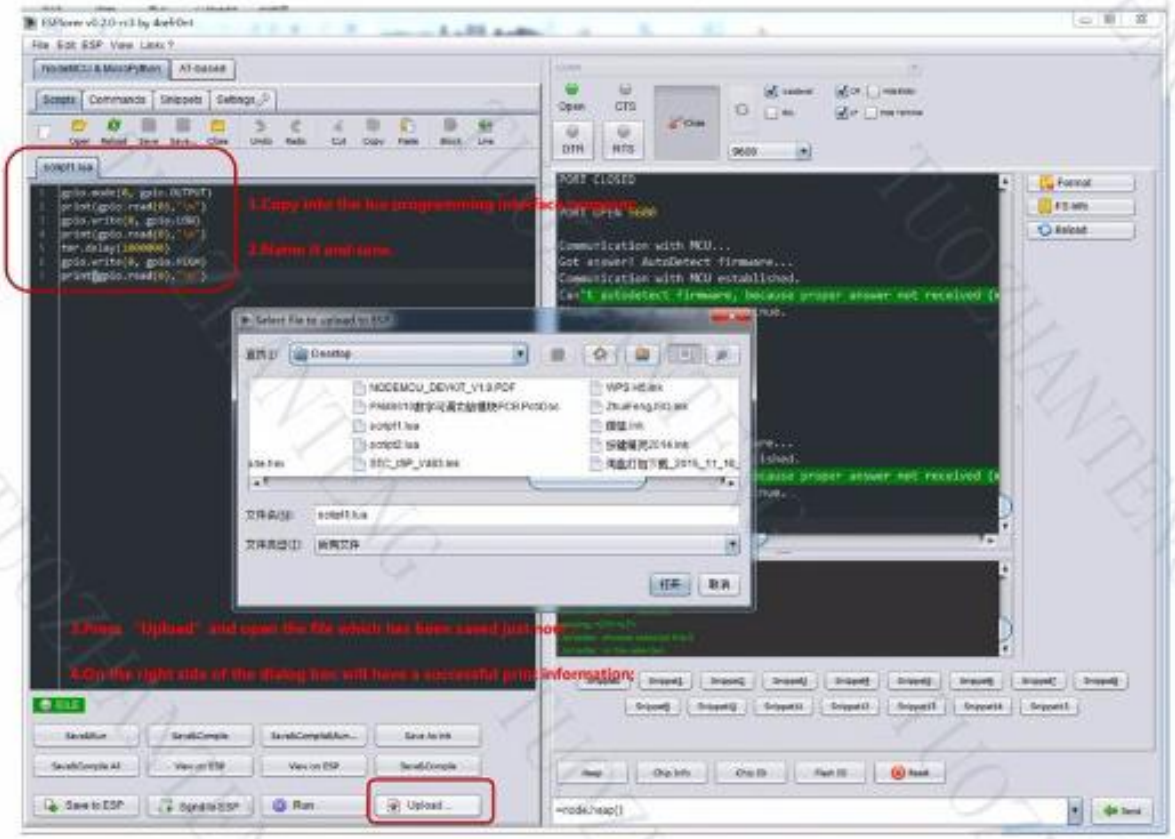


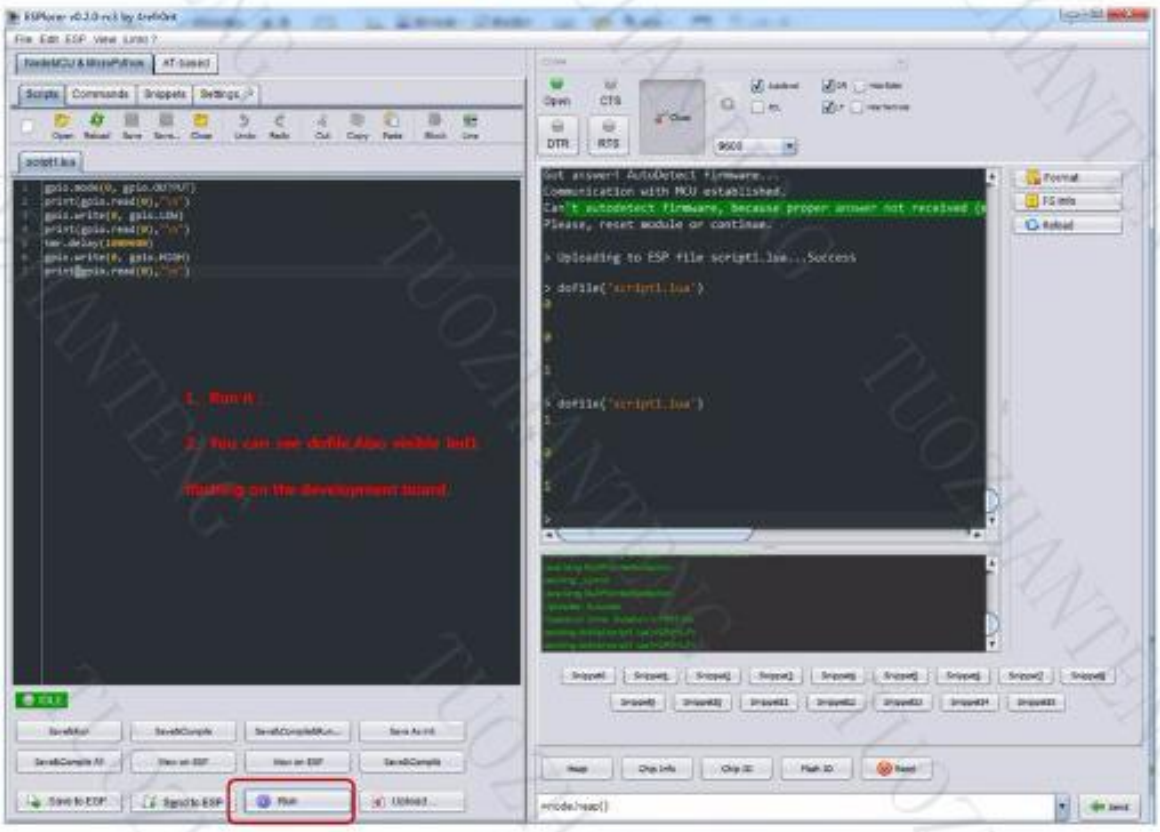
LED1 is connected to the GPIO16,it could be lighted when GPIO16 was low.And GPIO16 was named D0 on Nodemcu. First ,we use the".mode" to set GPIO16 as output.and use ".write" to set level LOW. In addition, in order to be able to see the light, here with the "TMR.Delay" do the latency.

The whole program is as follows:

```
gpio.mode(0, gpio.OUTPUT)print(gpio.read(0),"\n")
gpio.write(0, gpio.LOW)print(gpio.read(0),"\n")
tmr.delay(1000000)
gpio.write(0, gpio.HIGH)print(gpio.read(0),"\n")
```

3、Upload the program to Nodemcu.

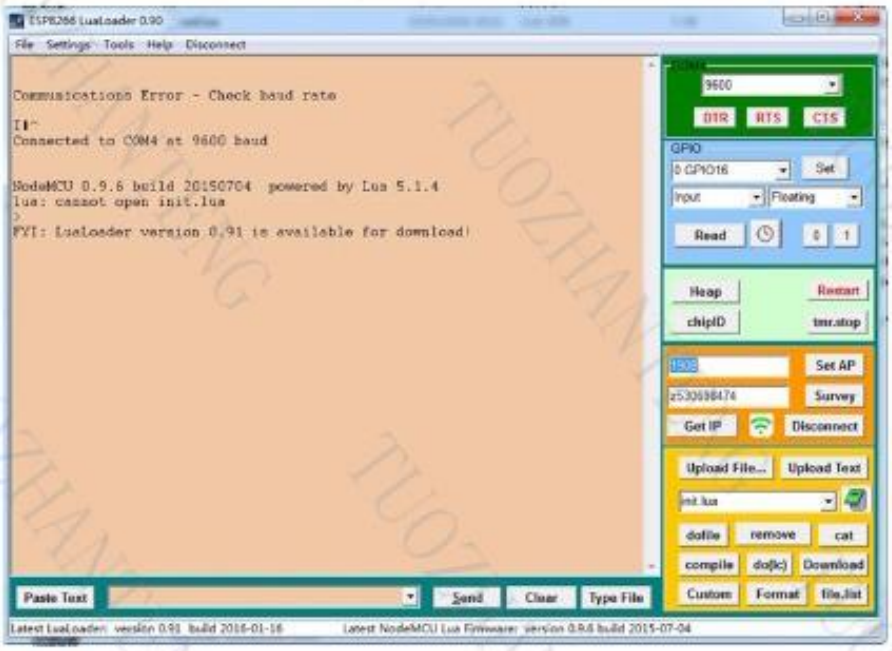




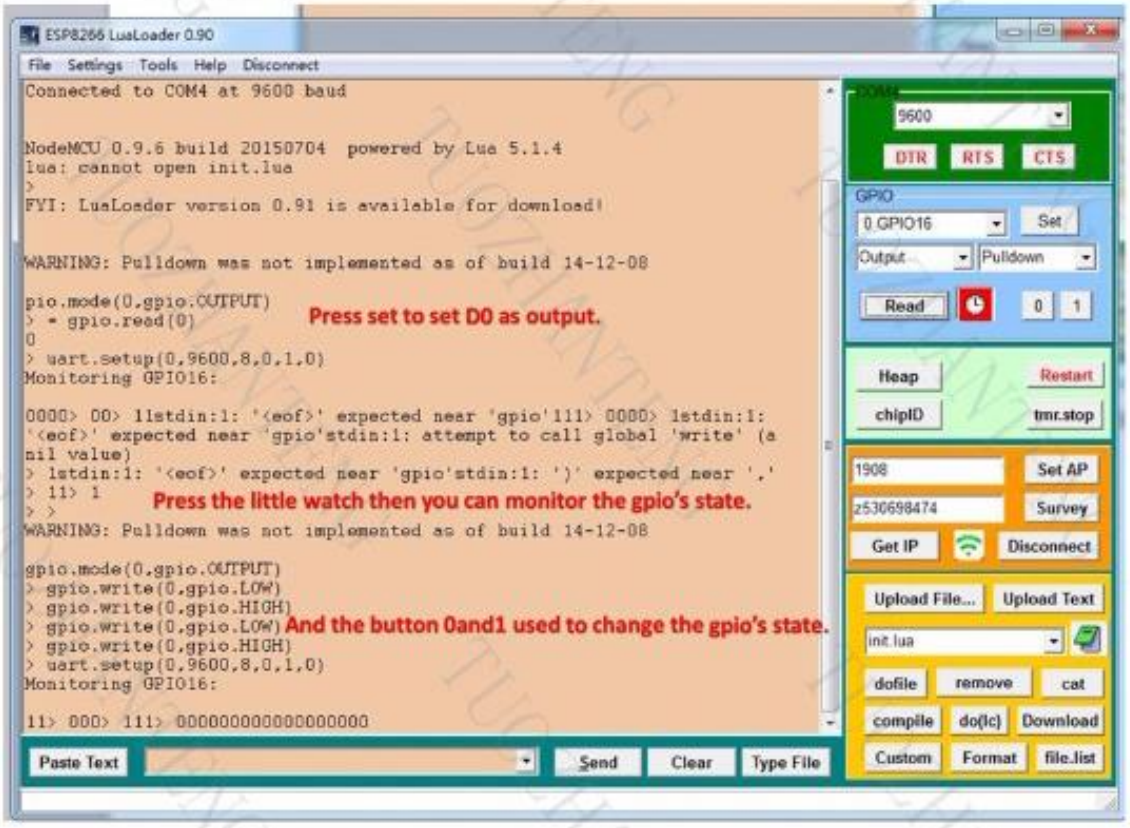
As each time you press the RUN key, visible he blue LED on the Nodemcu will flash once.

■ PART-3. Use ESP8266 LUAloader to test.

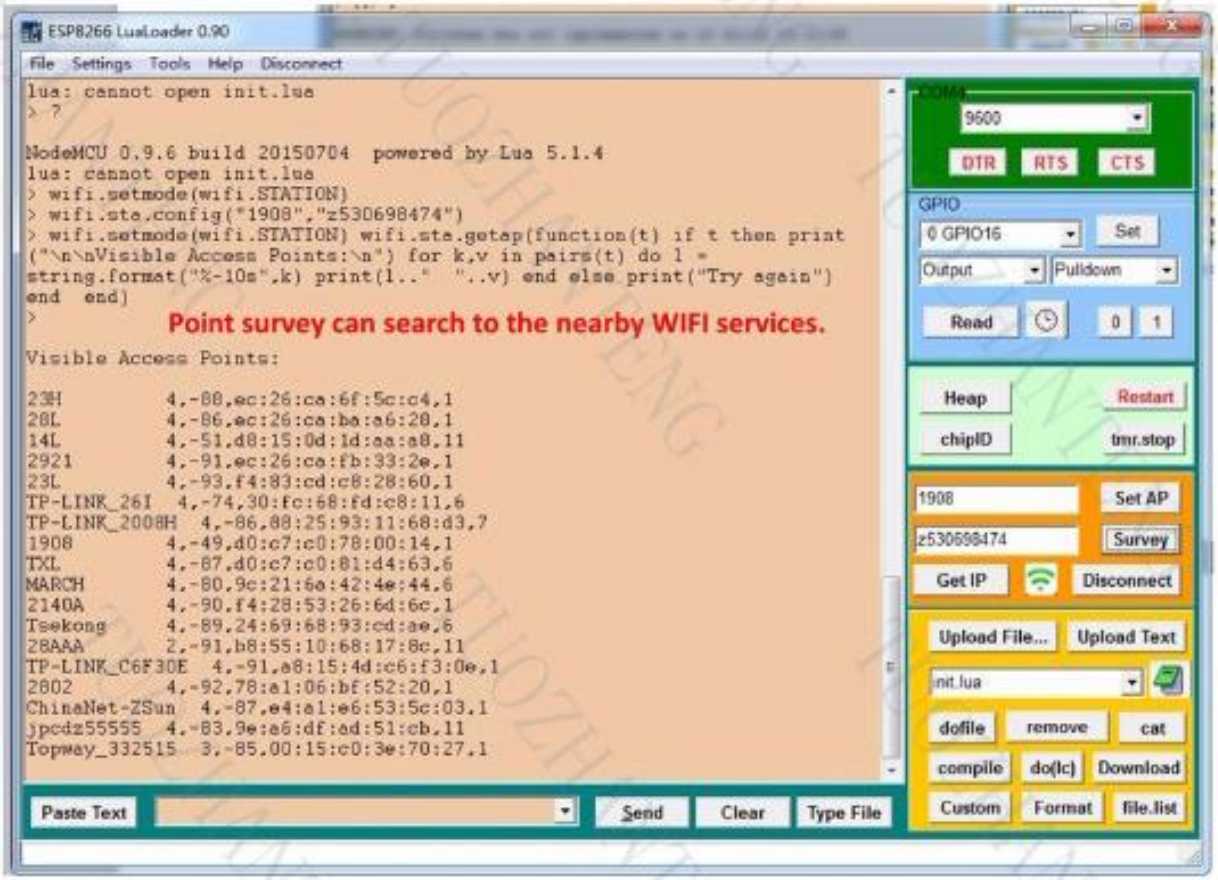
Open ESP8266 LUAloader. And choose the COM,set Serial baud rate 9600,then RST. You can see the imformation as follow.

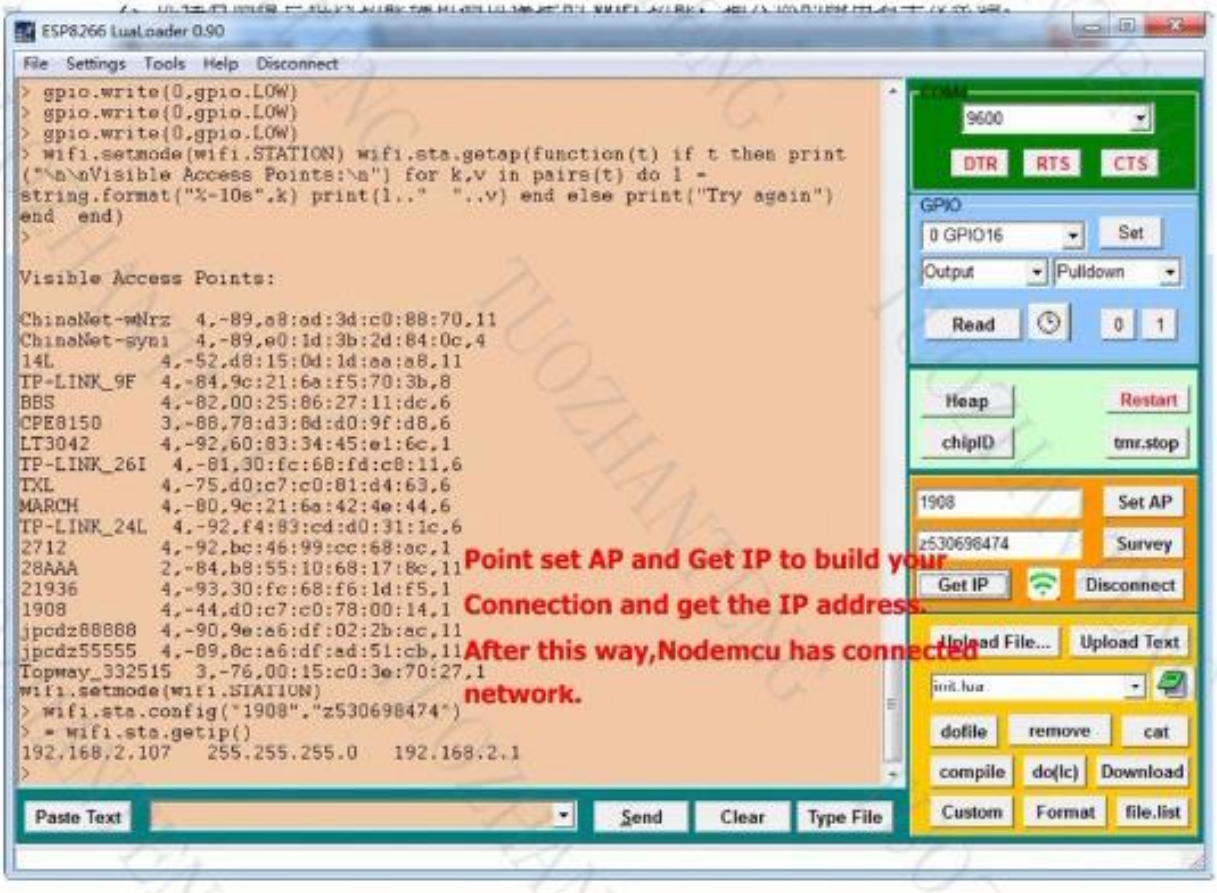


1、Blue window on the right is used to test GPIO.You just need to fill in the parameter and set.

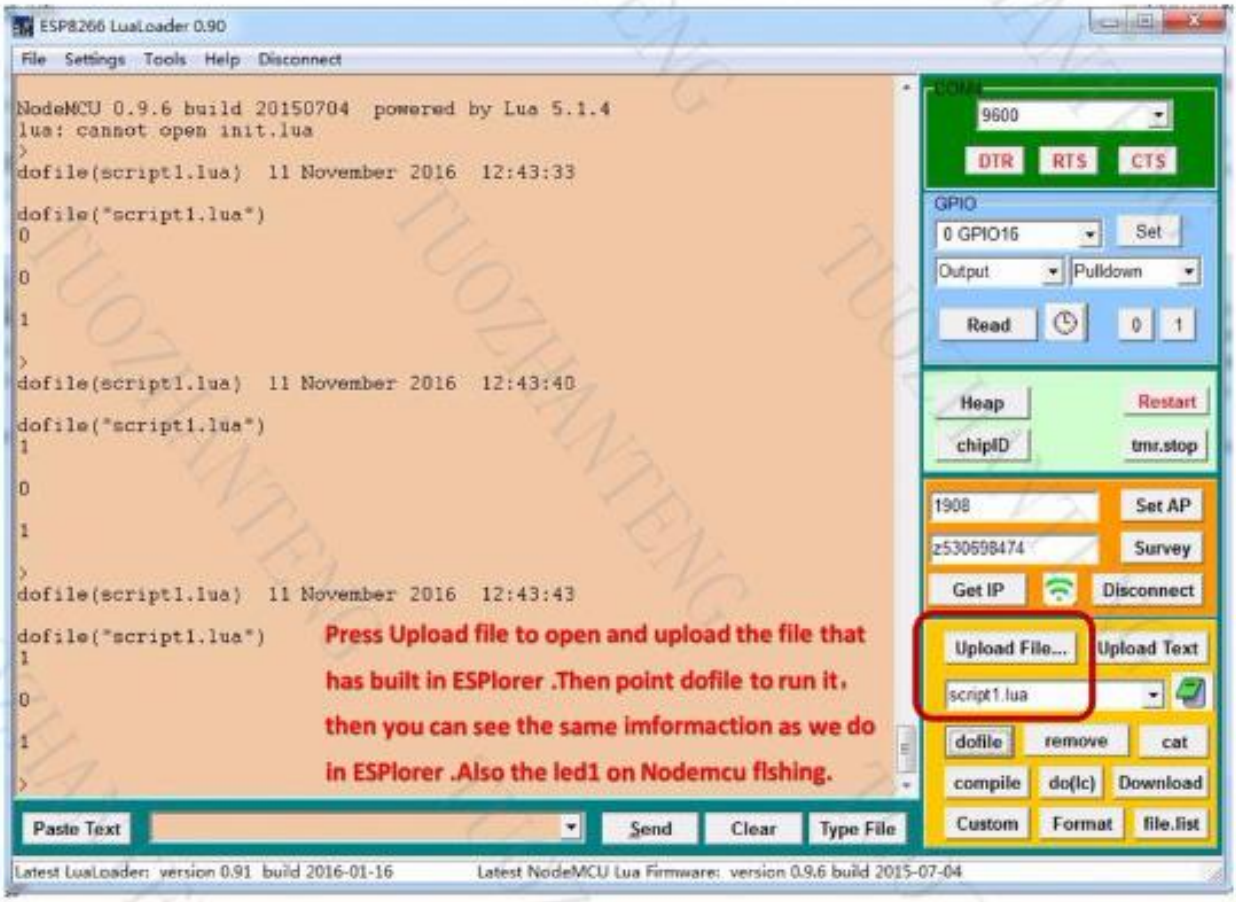


Orange window on the right is used to test wifi connection. Point survey can search to the nearby WIFI services.You need to enter your user name and password to set your connection.

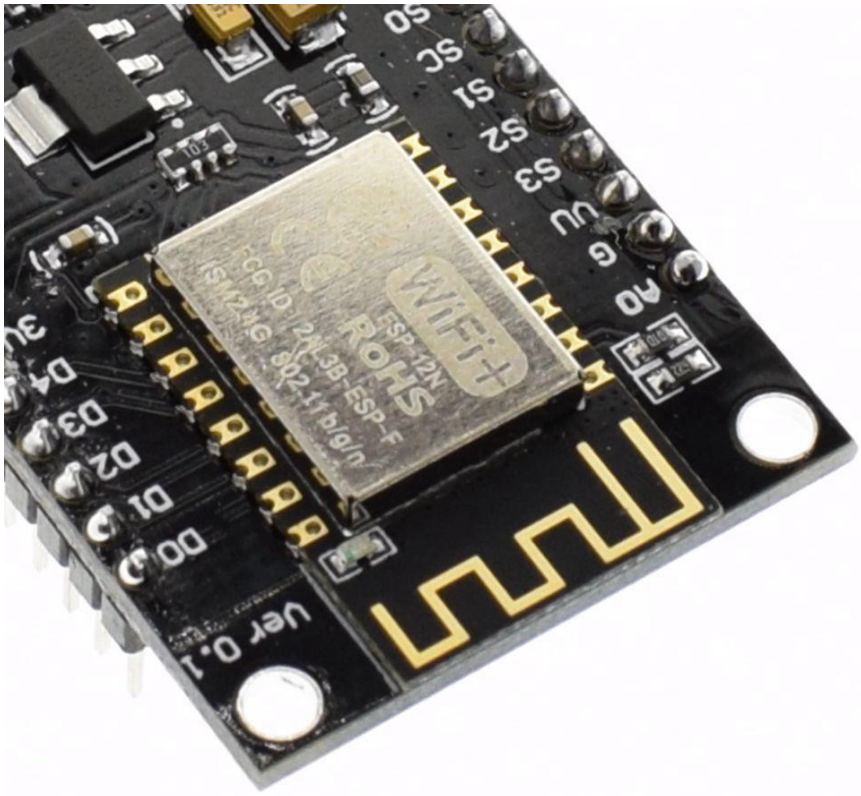

ESP8266 LuaLoader 0.90
File Settings Tools Help Disconnect
lua: cannot open init.lua
> ?
NodeMCU 0.9.6 build 20150704 powered by Lua 5.1.4
lua: cannot open init.lua
> wifi.setmode(wifi.STATION)
> wifi.sta.config("1908","z530698474")
> wifi.setmode(wifi.STATION) wifi.sta.getap(function(t) if t then print
("\n\nVisible Access Points:\n") for k,v in pairs(t) do l =
string.format("%-10s",k) print(l.." "..v) end else print("Try again")
end end)
>
Point survey can search to the nearby WIFI services.
Visible Access Points:
23H 4,-88,ec:26:ca:6f:5c:c4,1
28L 4,-86,ec:26:ca:ba:a6:28,1
14L 4,-51,d8:15:0d:1d:aa:a8,11
2921 4,-91,ec:26:ca:fb:33:2e,1
23L 4,-93,f4:83:cd:c8:28:60,1
TP-LINK_26I 4,-74,30:fc:68:fd:c8:11,6
TP-LINK_2008H 4,-86,88:25:93:11:68:d3,7
1908 4,-49,d0:c7:c0:78:00:14,1
TXL 4,-87,d0:c7:c0:81:d4:63,6
MARCH 4,-80,9c:21:6a:42:4e:44,6
2140A 4,-90,f4:28:53:26:6d:6c,1
Tsekong 4,-89,24:69:68:93:cd:ae,6
28AAA 2,-91,b8:55:10:68:17:8c,11
TP-LINK_C6F30E 4,-91,a8:15:4d:c6:f3:0e,1
2802 4,-92,78:a1:06:bf:52:20,1
ChinaNet-ZSun 4,-87,e4:a1:e6:53:5c:03,1
jpcdz55555 4,-83,9e:a6:df:ad:51:cb,11
Topway_332515 3,-85,00:15:c0:3e:70:27,1
COM4
9600
DTR RTS CTS
GPIO
0 GPIO16 Set
Output Pulldown
Read 0 1
Heap Restart
chipID tmr.stop
1908 Set AP
z530698474 Survey
Get IP Disconnect
Upload File... Upload Text
init.lua
dofile remove cat
compile do(lc) Download
Custom Format file.list
Paste Text Send Clear Type File

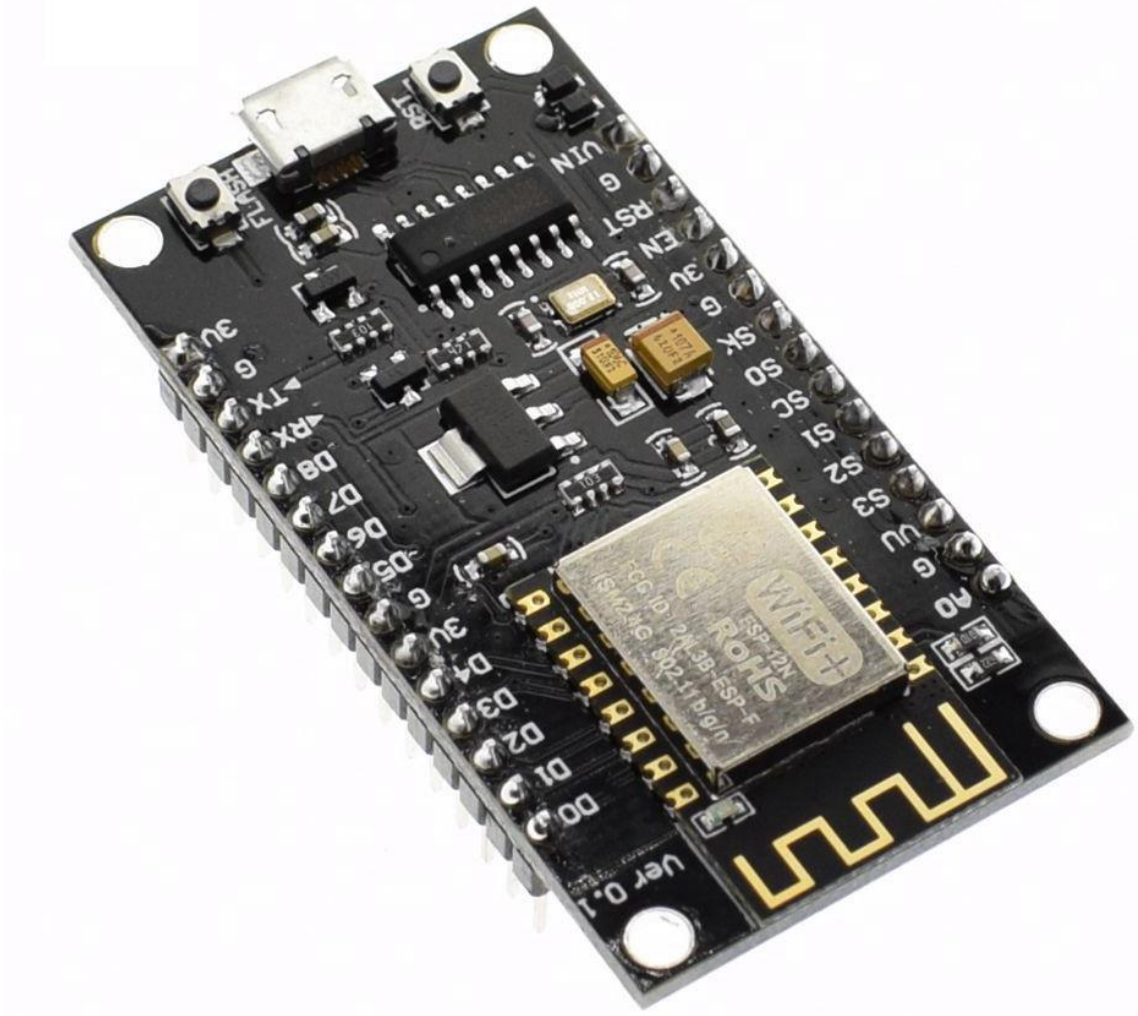

ESP8266 LuaLoader 0.90
File Settings Tools Help Disconnect
> gpio.write(0,gpio.LOW)
> gpio.write(0,gpio.LOW)
> gpio.write(0,gpio.LOW)
> wifi.setmode(wifi.STATION) wifi.sta.getap(function(t) if t then print
("\n\nVisible Access Points:\n") for k,v in pairs(t) do l =
string.format("%-10s",k) print(l.." "..v) end else print("Try again")
end end)
>
Visible Access Points:
ChinaNet-wNrz 4,-89,a8:ad:3d:c0:88:70,11
ChinaNet-syni 4,-89,e0:1d:3b:2d:84:0c,4
14L 4,-52,d8:15:0d:1d:aa:a8,11
TP-LINK_9F 4,-84,9c:21:6a:f5:70:3b,8
BBS 4,-82,00:25:86:27:11:dc,6
CPE8150 3,-88,78:d3:8d:d0:9f:d8,6
LT3042 4,-92,60:83:34:45:e1:6c,1
TP-LINK_26I 4,-81,30:fc:68:fd:c8:11,6
TXL 4,-75,d0:c7:c0:81:d4:63,6
MARCH 4,-80,9c:21:6a:42:4e:44,6
TP-LINK_24L 4,-92,f4:83:cd:d0:31:1c,6
2712 4,-92,bc:46:99:cc:68:ac,1
28AAA 2,-84,b8:55:10:68:17:8c,11
21936 4,-93,30:fc:68:f6:1d:f5,1
1908 4,-44,d0:c7:c0:78:00:14,1
jpcdz88888 4,-90,9e:a6:df:02:2b:ac,11
jpcdz55555 4,-89,8c:a6:df:ad:51:cb,11
Topway_332515 3,-76,00:15:c0:3e:70:27,1
wifi.setmode(wifi.STATION)
> wifi.sta.config("1908","z530698474")
> = wifi.sta.getip()
192.168.2.107 255.255.255.0 192.168.2.1
>
Point set AP and Get IP to build your
Connection and get the IP address.
After this way,Nodemcu has connected
network.
COM4
9600
DTR RTS CTS
GPIO
0 GPIO16 Set
Output Pulldown
Read 0 1
Heap Restart
chipID tmr.stop
1908 Set AP
z530698474 Survey
Get IP Disconnect
Upload File... Upload Text
init.lua
dofile remove cat
compile do(lc) Download
Custom Format file.list
Paste Text Send Clear Type File

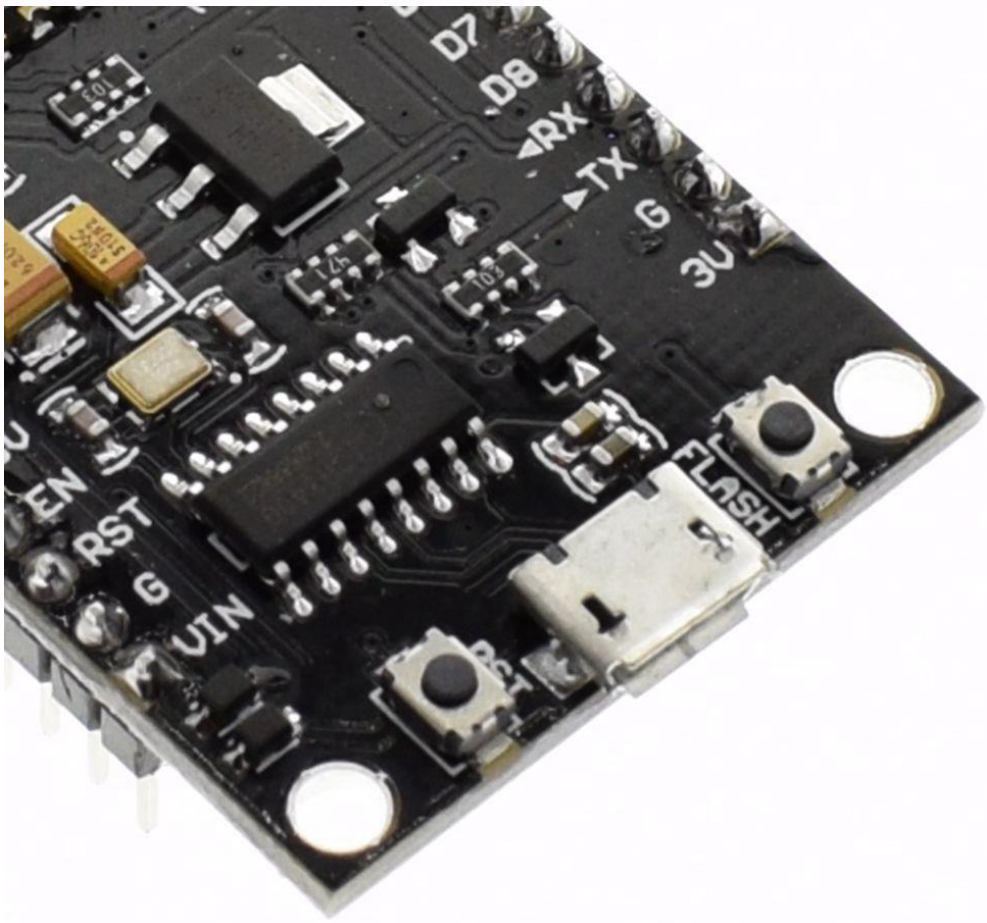
2.You can also upload lua files to ESP8266 Lualoader which has been built in ESPlorer before.

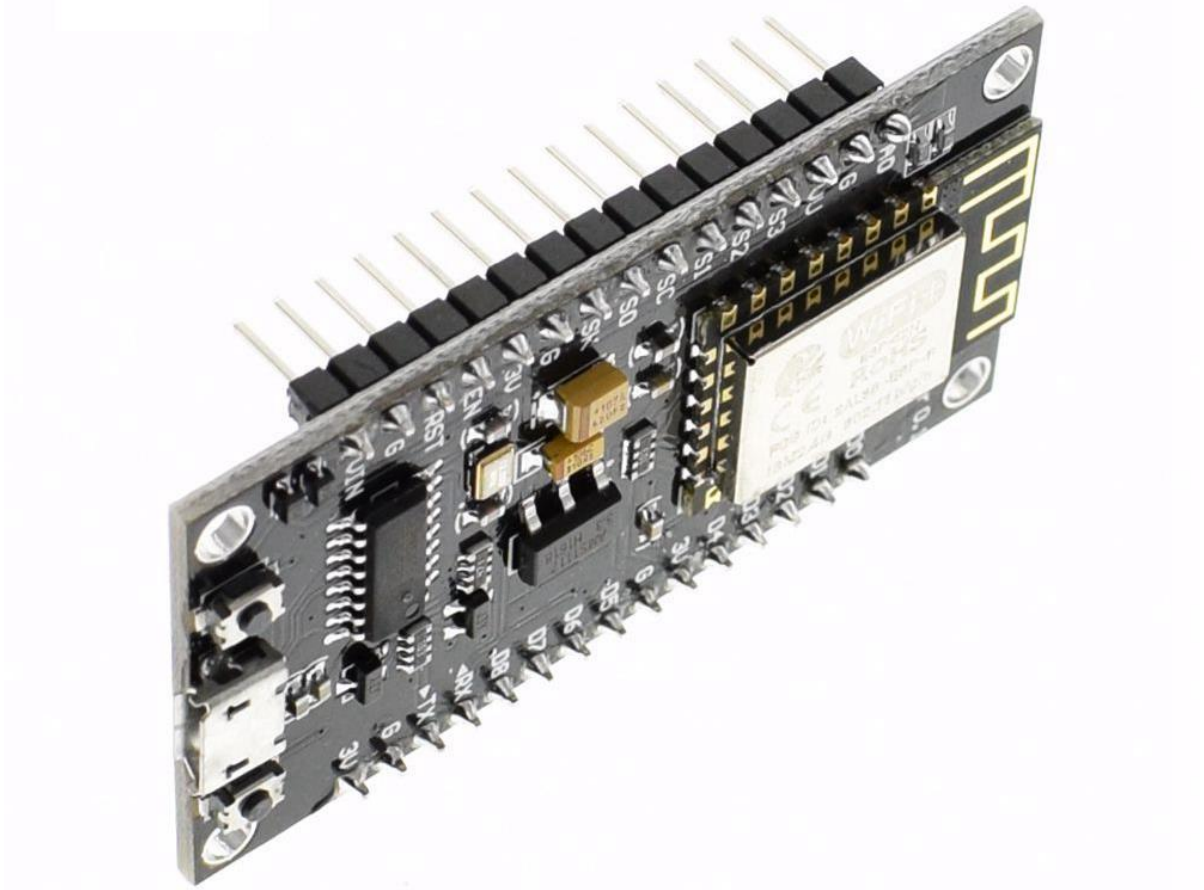


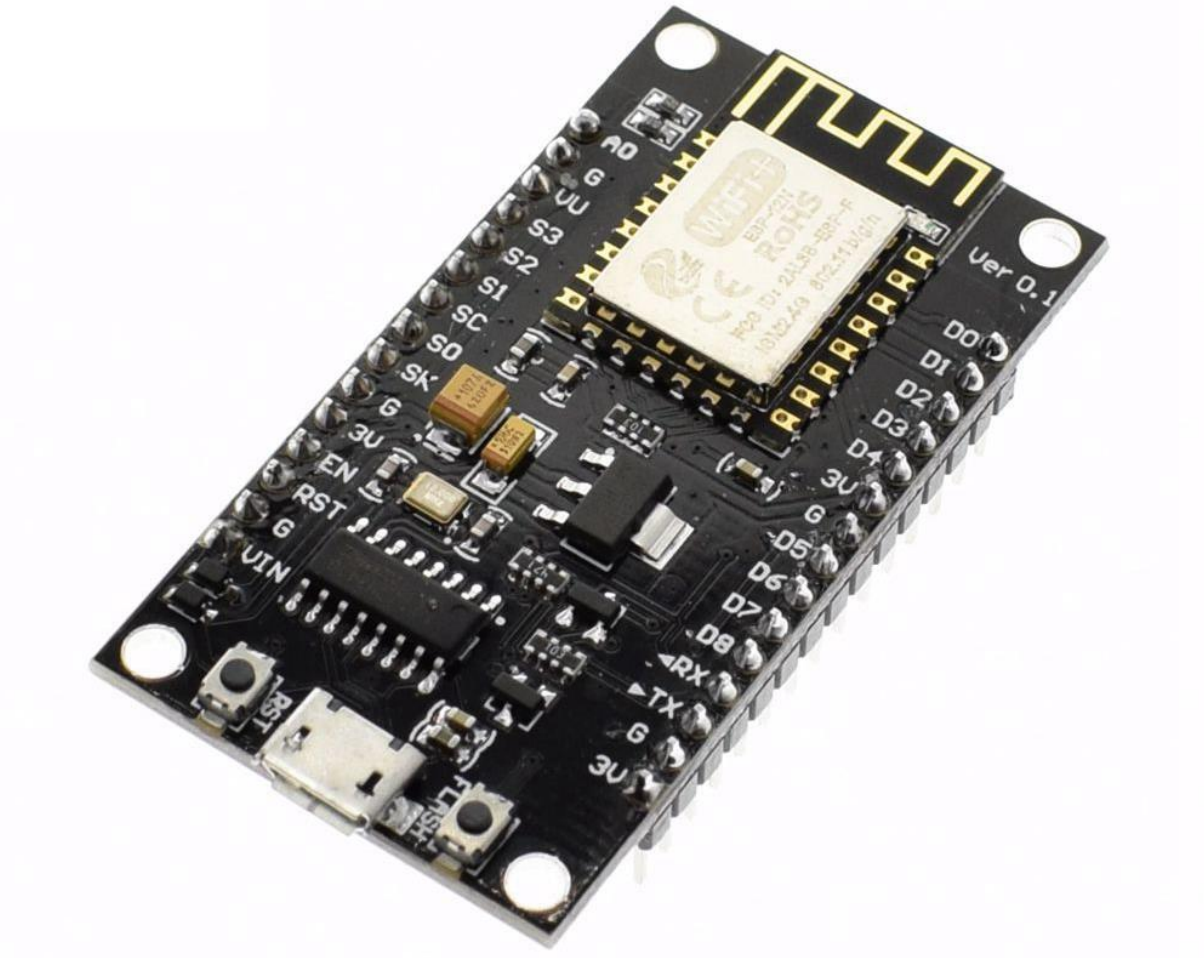
At this point, a simple test end. Enjoy yourself !

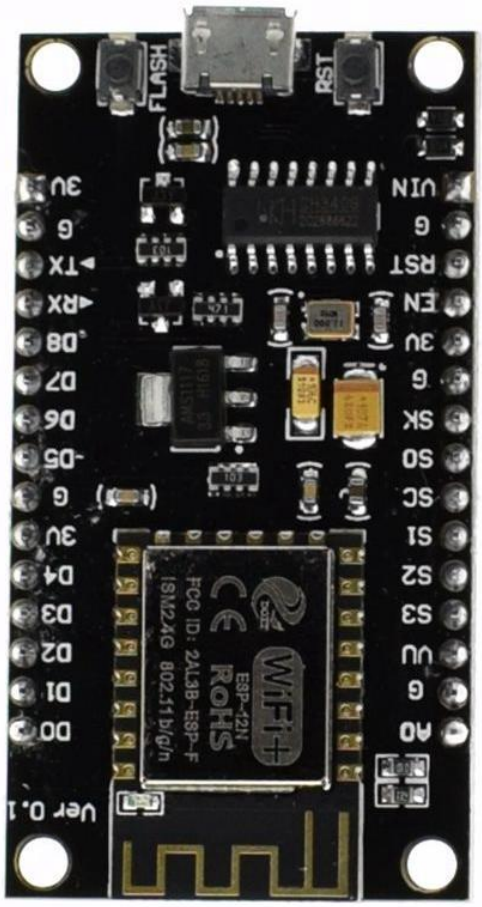


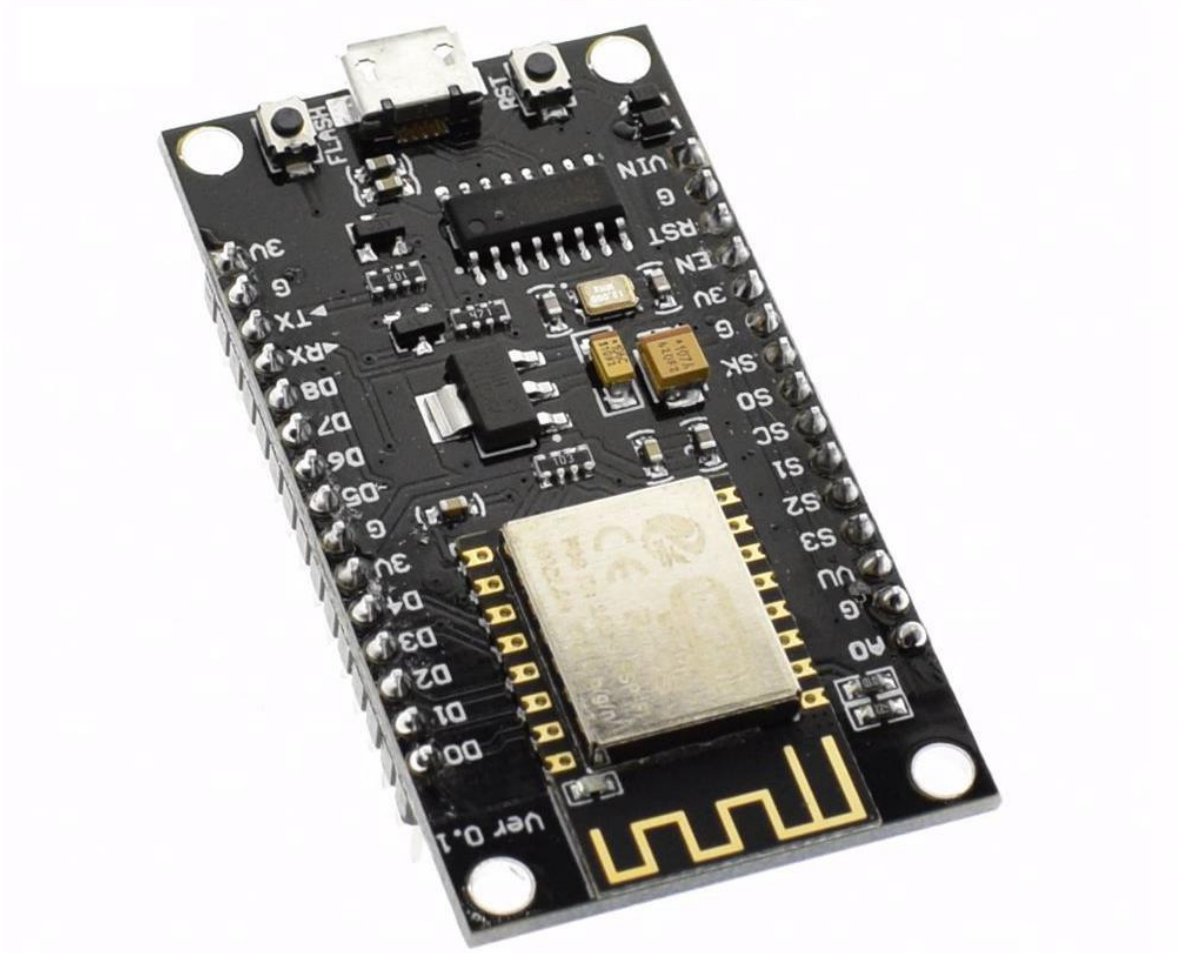

RST
VIN
G
3V
EN
RST
SK
SO
SC
SI
SD2
SD3
3V
G
A0
TX
RX
D8
D7
D6
D5
G
3V
D4
D3
D2
D1
D0
WiFi
ESP-12N
RoHS


D7
D8
RX
TX
G
3V
EN
RST
G
VIN
FLASH






FLASH
RST
3U
G
TX
RX
D8
D7
D6
D5
G
3U
D4
D3
D2
D1
D0
Ver 0.1
VIN
G
RST
EN
3U
G
SK
SO
SC
SI
S2
S3
U0
G
A0
WiFi
ESP-12N
RoHS
FCC ID: 2AL3B-ESP-F
ISM2.4G 802.11 b/g/n


FLASH
RST
3U
G
TX
RX
D8
D7
D6
D5
G
3U
D4
D3
D2
D1
D0
Ver 0.1
VIN
G
RST
EN
3U
G
SK
SO
SC
SI
S2
S3
U0
G
A0