

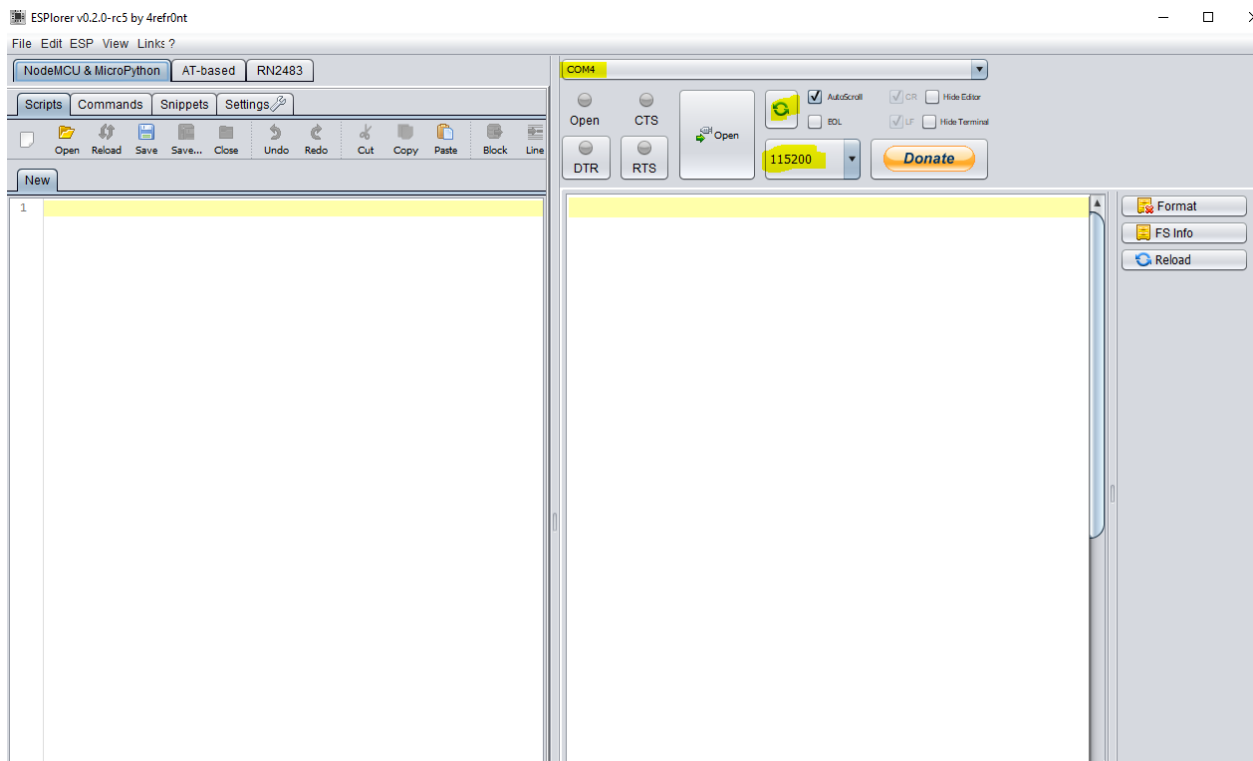
# Connecting to pp-Code® Watchman using USB

You will need to install Explorer on PC/desktop. Please find the right Explorer at:

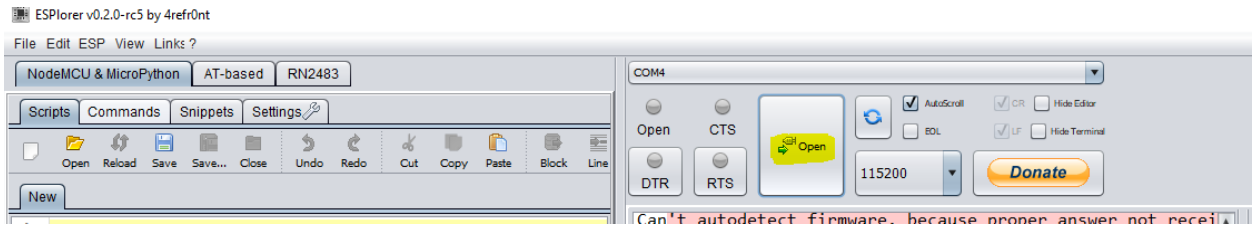
<https://esp8266.ru/esplorer/> (look for “Explorer Downloads” on the page). It is a zipped Java package, download and unzip it. There is nothing to install. Simply double click the ESPlorer.jar file, it will open up (requires Java on your desktop).

Name	Date modified	Type	Size
_lua	1/5/2019 5:33 AM	File folder	
_micropython	1/5/2019 5:33 AM	File folder	
lib	1/5/2019 5:33 AM	File folder	
ESPlorer.bat	5/28/2018 1:20 PM	Windows Batch File	1
ESPlorer.jar	5/28/2018 1:20 PM	Executable Jar File	2,330
ESPlorer.Log	6/5/2019 5:22 PM	Text Document	631
ESPlorer.Log (1).lck	11/24/2018 2:03 PM	Lock File	0

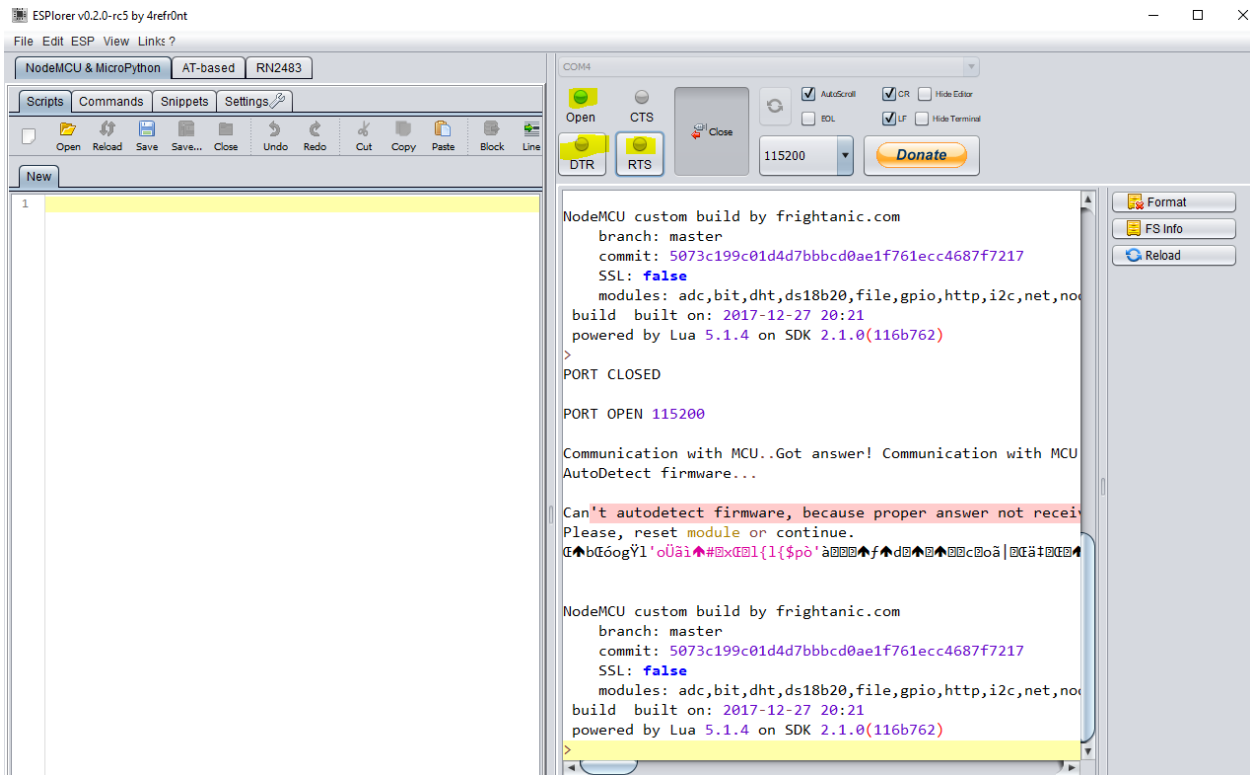
- 1) Connect the Watchman to a USB port
  - a. If your PC does not establish USB connectivity with Watchman/Explorer, you may need to install a USB driver (download, unzip and install: [CH341SER.zip](#)).
- 2) Set the port speed to 115200 on the Explorer
- 3) Click the circle (just above the port speed) and Explorer will look for USB that Watchman is connected (and will show the COM port on the top bar)



4) Click the “Open” to establish the communication with Watchman.



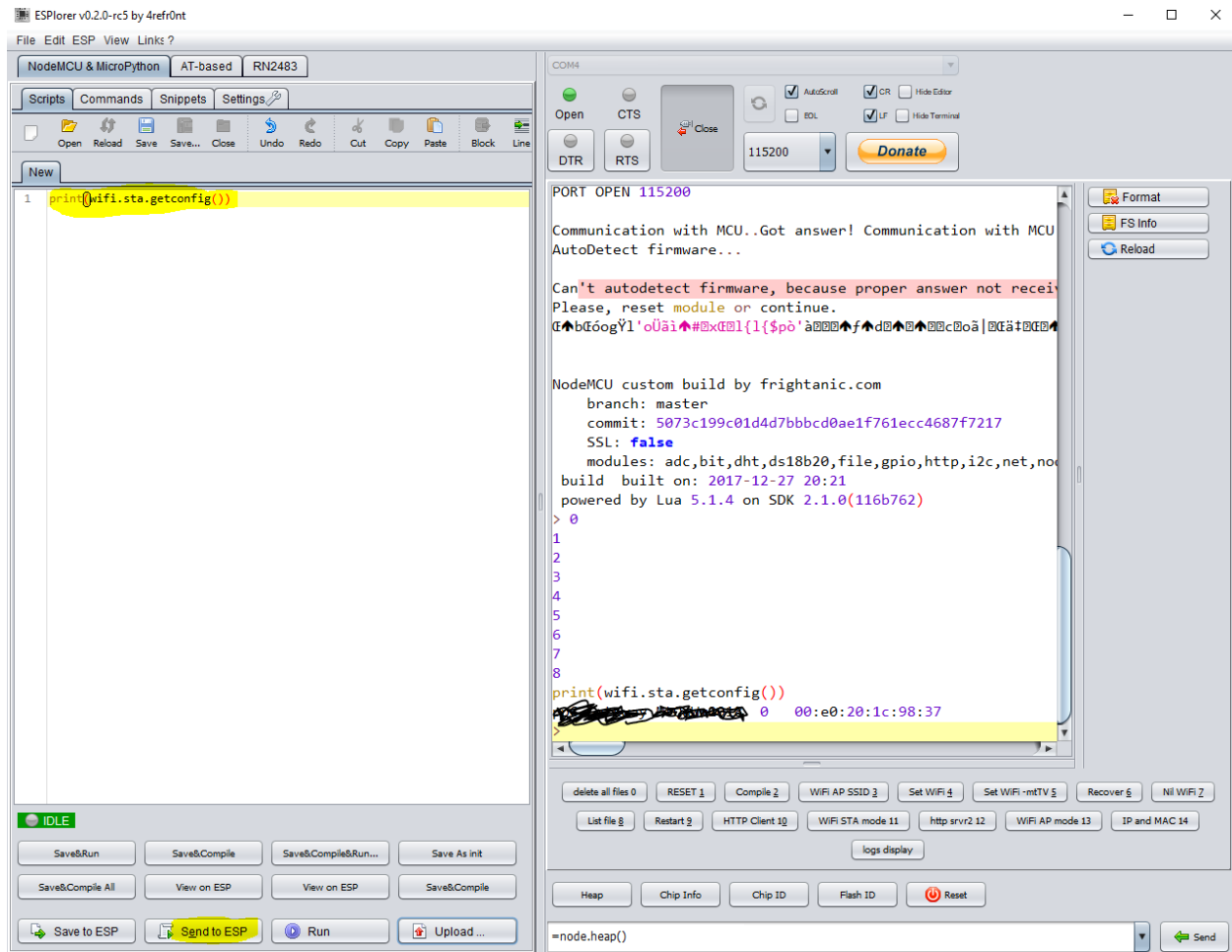
5) Please note, you might have to click “DTR” and then “RTS” (in sequence and possible repeat 2 times) to a successful connection (as indicated by green “Open”)



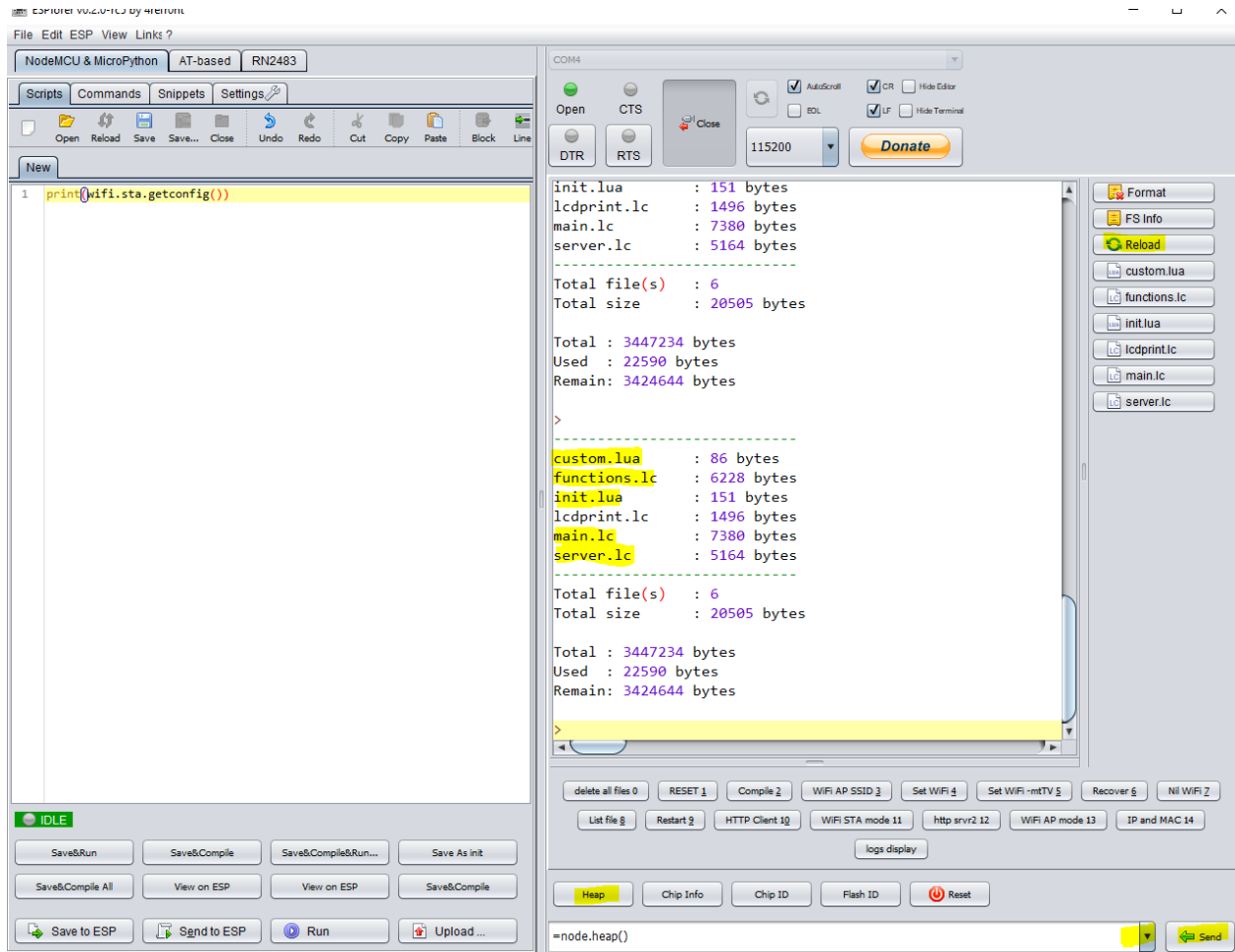
6) At this time you are USB-connected to Watchman.

7) Using the left window (Script tab) of the Explorer, you can send commands to Watchman:

- a. Type in “print(wifi.sta.getconfig())” in the left window and then click on “Send to ESP”. Output will be printed on the right window – showing the current WiFi settings



- b. Here are the other commands that use the same way:
- i. `print(Temperature, Humidity)`
  - ii. `print(wifi.sta.getip(), macID)` >>> prints your Watchman's IP and it's ID
  - iii. `wifi.sta.config{ssid="Your-WIFI-SSID", pwd="Your-WIFI-Password"}` >>> this will configure your Watchman with your WiFi credentials.
  - iv. `"node.restart()"` >>> restarts your Watchman (recommended after configuring Watchman with your WiFi credentials)
  - v. There are some pre-defined buttons such as "Heap" (shows the current heap size, should be higher than 4000), "Reload" will show files on the system (lcdprint.lc might not be on all systems) and a dropdown with list of few commonly used commands.

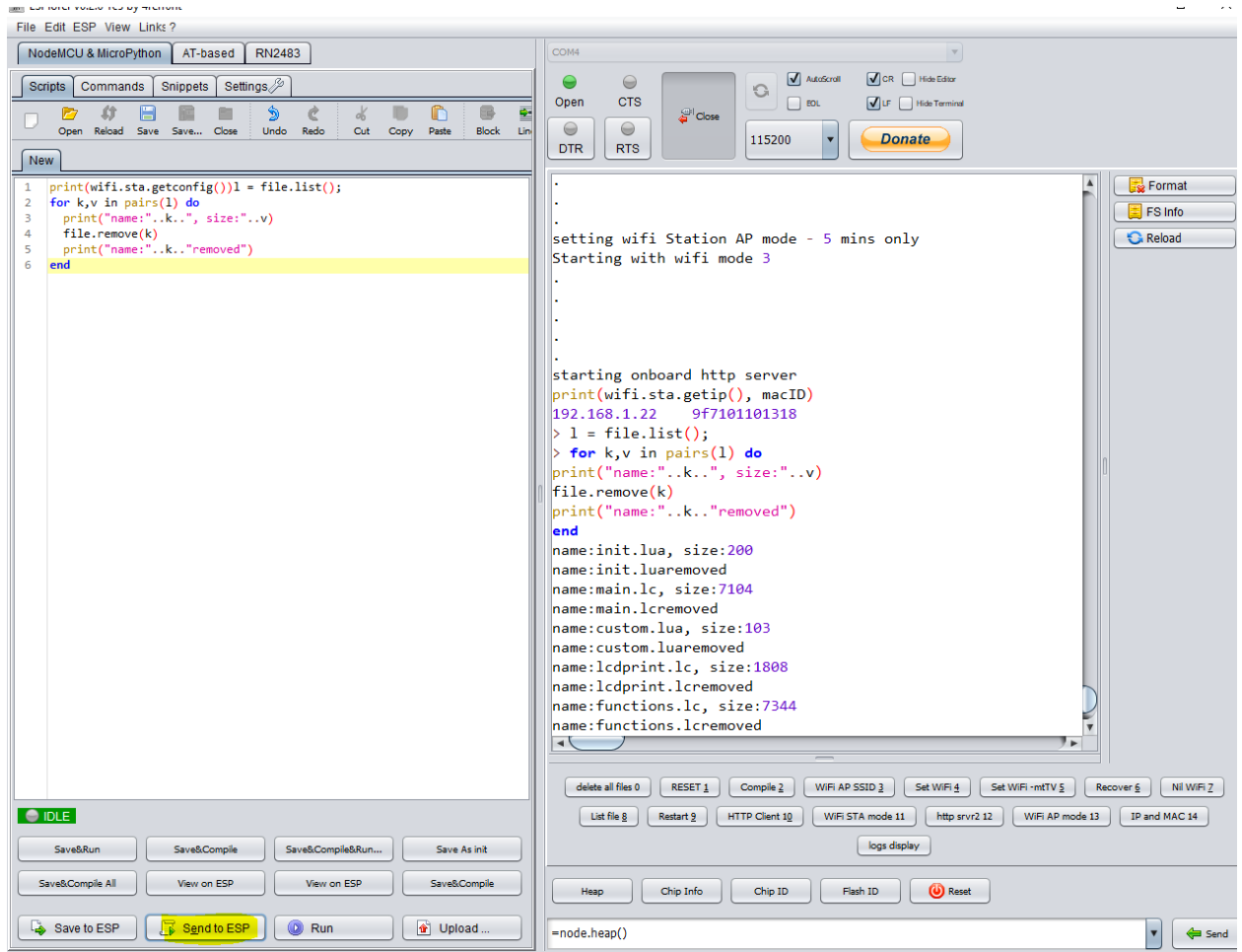


## Performing a Firmware upgrade

1. Connect your Watchman to Explorer using USB port on your laptop/desktop (step 1 through 6 from the section above).
2. Copy and paste following code on the left window (Scripts tab) and click "Send to ESP". It will delete all existing files on the unit and restart it:

```
l = file.list();
for k,v in pairs(l) do
  print("name:"..k..", size:"..v)
  file.remove(k)
  print("name:"..k.."removed")
end
```

```
node.restart()
```



3. Using the "Upload" button, upload all the files that you have received and send the `node.restart()` command using the left window.
4. Your unit will restart with the new firmware and you may disconnect it now (make sure you first click on "Close" button on top of the right window). You are all set.