

Prepare Linux for FireNEX-5000H

1. Disable “USB Autosuspend Mode”
2. Verify USB hub Autosuspend Mode

Disable “USB Autosuspend Mode” with TLP

1. TLP is a Linux power management tool. To install, open up Terminal by pressing: **Ctrl + Alt + T** and then typing “*sudo apt install tlp*”.

```
newnex@newnex-MS-7B46:~$ sudo apt install tlp
[sudo] password for newnex: █
```

2. When prompted, enter in your password and press enter.

```
newnex@newnex-MS-7B46:~$ sudo apt install tlp
[sudo] password for newnex:
Reading package lists... Done
Building dependency tree
Reading state information... Done
tlp is already the newest version (1.1-2ubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 382 not upgraded.
newnex@newnex-MS-7B46:~$ █
```

TLP should self-install and now be ready.

3. Now edit the main TLP file by typing “*sudo gedit /etc/default/tlp*”.

```
newnex@newnex-MS-7B46:~$ sudo gedit /etc/default/tlp
[sudo] password for newnex: █
```

Enter in your password if necessary.

4. Navigate to the “USB_AUTOSUSPEND” area and ensure USB_AUTOSUSPEND is set to **1**.

```
is set to 0 to disable, 1 to enable USB autosuspend feature.
USB_AUTOSUSPEND=1
# Exclude listed devices from USB autosuspend (separate with spaces).
# Use lsusb to get the ids.
# Note: input devices (usbhid) are excluded automatically
USB_BLACKLIST="0451:8025 04f7:1001 04f7:1002 04f7:1003 04f7:1004 1a40:0401"
```

Remove the “#” in front of the USB_BLACKLIST setting and include the device “0451:8025”.

Separate additional devices with a space.

5. Save and close file.
6. To run the new configuration, either restart your computer or type in “*sudo tlp start*” in the terminal. Enter in your password again if necessary.

*TLP Installation on other Linux:

<https://linrunner.de/en/tlp/docs/tlp-linux-advanced-power-management.html>

Verify USB hub Suspend Mode

1. Open Terminal using **Ctrl + Alt + T** and type in “*tlp-stat -u*”

```
newnex@newnex-MS-7B46:~$ tlp-stat -u
--- TLP 1.1 -----
+++ USB
Autosuspend      = enabled
Device whitelist = (not configured)
Device blacklist = 0451:8025 04f7:1001 04f7:1002 04f7:1003 04f7:1004 1a40:0401
Bluetooth blacklist = disabled
Phone blacklist  = disabled
WWAN blacklist   = enabled
```

Make sure that “Autosuspend” is enabled and the device # “0451:8025” shows up on the Device blacklist.

2. Look for Device “ID 0451:8025” and ensure that “control” state is set to “on” and “autosuspend_delay_ms” is “0”.

```
Bus 004 Device 001 ID 1d6b:0003 control = auto, autosuspend_delay_ms = 0 -- Linux Foundation 3.0 root hub (hub)
Bus 003 Device 001 ID 1d6b:0002 control = auto, autosuspend_delay_ms = 0 -- Linux Foundation 2.0 root hub (hub)
Bus 002 Device 027 ID 28d7:0011 control = auto, autosuspend_delay_ms = 2000 -- <unknown> (uvcvideo)
Bus 002 Device 032 ID 0996:1000 control = auto, autosuspend_delay_ms = 2000 -- Silicon Motion, Inc. - Taiwan (formerly Figix Technologies Corp.) (usb-lmi)
Bus 002 Device 026 ID 0451:8025 control = on, autosuspend_delay_ms = 0 -- Texas Instruments, Inc. (hub)
Bus 002 Device 002 ID 8087:0001 control = auto, autosuspend_delay_ms = 2000 -- Intel Corporation (usb-lmi)
Bus 001 Device 003 ID 413c:2113 control = on, autosuspend_delay_ms = 2000 -- Dell Computer Corp. (usbhid)
Bus 001 Device 002 ID 0461:4e22 control = on, autosuspend_delay_ms = 2000 -- Primax Electronics, Ltd (usbhid)
Bus 001 Device 001 ID 1d6b:0002 control = auto, autosuspend_delay_ms = 0 -- Linux Foundation 2.0 root hub (hub)
```

Your Linux should now be ready for the FIRENEX-5000H.