Linux Driver Installation Guide

Installation

> **Note** *Elevated privileges are needed for this installation. It may be necessary to provide the administrative credentials for the computer.*

1. Open a **Terminal Window** and type the following commands one after the other.

   a. sudo apt-get install make

   b. sudo apt-get install linux-source

   c. sudo apt-get install build-essential

   d. sudo apt-get install gcc-multilib

   e. sudo apt-get install linux-headers-($uname-r)

   f. sudo ln -s /usr/include/asm-generic

   g. sudo apt-get update

   h. sudo apt-get upgrade

2. Exit the **Terminal Window**.

3. Extract the **Driver** to a **Folder** of choice.

4. Open a **Terminal Window** and **Navigate** to the **Folder** where the **Driver** has been extracted. Type the following commands one after the other.
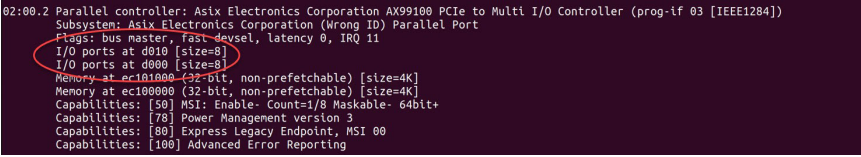
   a. sudo -s

   b. make

   c. make install

5. Exit the **Terminal Window**.

6. Launch a new **Terminal Window** that is not rooted in the **Driver Folder**. Type the following commands one after the other.

   a. sudo modprobe -r parport_pc

   b. sudo lspci -v

   > **Note** *lspci should now show a controller similar to "01:00.2 Parallel controller: Asix Electronics Corporation AX99100 PCIe to Multi I/O Controller." Figure 1.*


```
02:00.2 Parallel controller: Asix Electronics Corporation AX99100 PCIe to Multi I/O Controller (prog-if 03 [IEEE1284])
        Subsystem: Asix Electronics Corporation (Wrong ID) Parallel Port
        Flags: bus master, fast devsel, latency 0, IRQ 11
        I/O ports at d010 [size=8]
        I/O ports at d000 [size=8]
        Memory at ec101000 (32-bit, non-prefetchable) [size=4K]
        Memory at ec100000 (32-bit, non-prefetchable) [size=4K]
        Capabilities: [50] MSI: Enable- Count=1/8 Maskable- 64bit+
        Capabilities: [78] Power Management version 3
        Capabilities: [80] Express Legacy Endpoint, MSI 00
        Capabilities: [100] Advanced Error Reporting
```

Figure 1

   c. The next command will require the **I/O Port Memory Address** depicted in **Figure 1** with **0x** added to the start of the address. E.g. if the **I/O Port** is stated to be at address **d010**, the address used for the next command would be **0xd010**.

   d. sudo modprobe parport_pc io=0xd010

   > **Note** *0xd010 is the first I/O Port Memory Address from step 6b.*

7. The **Parallel Port** should now appear as an **lp port** in **/dev/**.