2a: On Linux

Before you install the PCIe driver on Linux, you first need to check whether you have a pre-built version of the driver installed. (Older versions of the driver have a bug that prevents updates and will result in failure when calling upon the Edge TPU.) So first follow these steps:

1. Check your Linux kernel version with this command:

uname -r

If it prints 4.18 or lower, you should be okay and can skip to begin installing our PCIe driver.

1. If your kernel version is 4.19 or higher, now check if you have a pre-build Apex driver installed:
2. lsmod | grep apex

If it prints nothing, then you're okay and continue to install our PCIe driver.

If it does print an Apex module name, stop here and follow the [workaround to disable Apex and Gasket](https://coral.ai/docs/m2/get-started/" \l "workaround-to-disable-apex-and-gasket).

Now install the PCIe driver and runtime as follows:

1. First, add our Debian package repository to your system (be sure you have an internet connection):
2. echo "deb https://packages.cloud.google.com/apt coral-edgetpu-stable main" | sudo tee /etc/apt/sources.list.d/coral-edgetpu.list
3. curl https://packages.cloud.google.com/apt/doc/apt-key.gpg | sudo apt-key add -
4. sudo apt-get update
5. Then install the PCIe driver and Edge TPU runtime packages:
6. sudo apt-get install gasket-dkms libedgetpu1-std
7. If the user account you'll be using does not have root permissions, you might need to also add the following udev rule, and then verify that the "apex" group exists and that your user is added to it:
8. sudo sh -c "echo 'SUBSYSTEM==\"apex\", MODE=\"0660\", GROUP=\"apex\"' >> /etc/udev/rules.d/65-apex.rules"
9. sudo groupadd apex
10. sudo adduser $USER apex
11. Now reboot the system.
12. Once rebooted, verify that the accelerator module is detected:
13. lspci -nn | grep 089a

You should see something like this:

03:00.0 System peripheral: Device 1ac1:089a

The 03 number and System peripheral name might be different, because those are host-system specific, but as long as you see a device listed with 089a then you're okay to proceed.

1. Also verify that the PCIe driver is loaded:
2. ls /dev/apex\_0

You should simply see the name repeated back:

/dev/apex\_0

Now continue to [install PyCoral and TensorFlow Lite](https://coral.ai/docs/m2/get-started/" \l "3-install-the-pycoral-library).