RPLIDAR

Installing Drivers on the Jetson Board-

Follow Instructions on the <http://elinux.org/Jetson/Tutorials/Program_An_Arduino#FTDI_kernel_module>

1. Download kernel source from the Jetson download center
2. Configuring the kernel
   1. Copy over the Jetson's existing kernel configuration to the newly-extracted kernel source:

zcat /proc/config.gz > ~/kernel/.config

1. Next build & launch the menuconfig tool to configure the kernel options. menuconfig requires ncurses to be installed, hence the apt-get command first.
   1. sudo apt-get install ncurses-bin libncurses5-dev
   2. make menuconfig
2. Navigate to Device Drivers -> USB Support -> USB Serial Converter Support
3. Choose '**M'**odule for “CP210X …… “

### Building modules

### make prepare

### make modules\_prepare

### make M=drivers/usb/serial/

### Installing the FTDI module

### sudo cp drivers/usb/serial/*cp210x...*.ko /lib/modules/$(uname -r)/kernel

### sudo depmod -a

1. Steps from below link yet to update <https://devtalk.nvidia.com/default/topic/890599/jetson-tk1/jetson-tk1-r21-1-and-siliconlab-cp210x-driver-/>

Issue - RPLIDAR Sample program runtime error - “Error, cannot bind to the specified serial port /dev/ttyUSB0.”

Solution: <http://answers.ros.org/question/199561/rplidar-driver-installation-problem-on-ubuntu/> - 3rd Solution on this page

1. Go to the file directory：/etc/udev/rules.d/, and see whether it has the file named " 50-usb-serial.rules "

If file not present, create the file with below steps

1. $ cd /etc/udev/rules.d/
2. $ sudo touch 50-usb-serial.rules
3. $ sudo gedit 50-usb-serial.rules

Give USB to serial device driver access to user application programs with this rule : **KERNEL=="ttyUSB0", GROUP="***user***", MODE="0666"** ( in these words, the word " user " is your user name)

4. run this command: " sudo /etc/init.d/udev restart "

5. If device does not works, unplug and plug it again