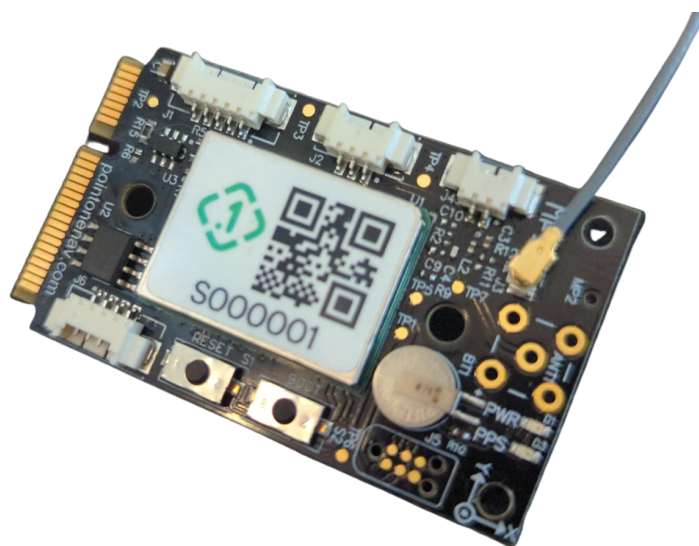




Point One Standard Dev Kit: Configuring udev Rules Under Linux to Detect Devices Application Note

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Configuring udev Rules Under Linux

In Linux, it is possible to configure the udev subsystem to automatically detect your devices each time they are connected, and then assign consistent device names to them. For example, instead of `/dev/ttyUSB3`, which may change when you unplug the device, you can use udev to create a recognizable name such as `/dev/p1sdk-uart1` that will not change when the device is unplugged or the computer restarts.

1. Run `udevadm monitor` to monitor activity when a serial (TTY) device is plugged in. We'll use this to determine the path and serial number for each device.


```
udevadm monitor -p -s tty
```
2. Unplug your Point One Standard Dev Kit (or Quectel EVK) devices and plug it back in.
3. You should see a series of prints. The last one will look similar to the following:


```
UDEV [4430.413678] add /devices/.../ttyUSB3 (tty)
...
SUBSYSTEM=tty
DEVNAME=/dev/ttyUSB3
...
ID_MODEL=CP2105_Dual_USB_to_UART_Bridge_Controller
...
ID_SERIAL_SHORT=00D38F50
```
4. Write down the serial number for the device, highlighted in bold above.
5. In a text editor, create a file named `/etc/udev/rules.d/99-p1sdk.rules` with the following contents, replacing the highlighted serial number with the value noted above.

Note that you will need to open the text editor with `sudo` in order to enable write permission for the udev rules directory.

```
SUBSYSTEM=="tty", ATTRS{idVendor}=="10c4", ATTRS{idProduct}=="ea70",
ATTRS{serial}=="00D38F50", GOTO="configure"
GOTO="end"
LABEL="configure"
ATTRS{bInterfaceNumber}=="00", SYMLINK+="p1sdk-uart2"
ATTRS{bInterfaceNumber}=="01", SYMLINK+="p1sdk-uart1"
LABEL="end"
```

6. You can now refer to your device as `/dev/p1sdk-uart1` (or `uart2`) for all tools, including `device_bridge.py` and `config_tool.py`.
7. Repeat these steps for your secondary device, replacing "primary" with "secondary" in the script where highlighted above.

Note that for a Quectel EVK, the interface and UART numbering is reversed as follows:

```
ATTRS{bInterfaceNumber}=="00", SYMLINK+="quectel-evk-uart1"
ATTRS{bInterfaceNumber}=="01", SYMLINK+="quectel-evk-uart2"
```