CmpE244 (II)

Nov.10 (Wed)

Example: PWM

II-1

Run Jetson-io.py to config the pin for PWM

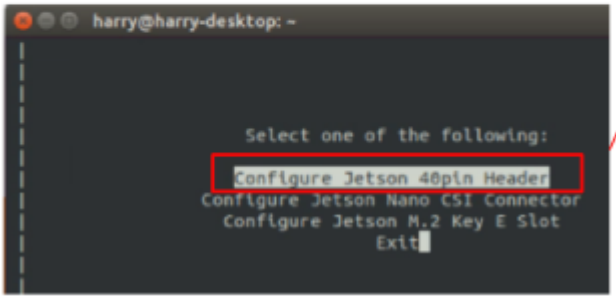
jetson-io.py

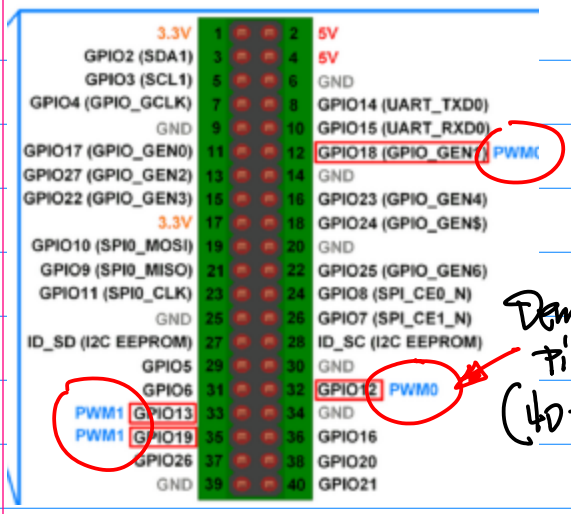
First, Try to Run the jetson-io.py, wait for UI screen to Appear.

Note: If UI did not show, then do the following fix. (Step 1 in PPT).

Step 2. Run jetson-io.py to configure pins

$sudo /opt/nvidia/jetson-io/jetson-io.py





Demo Example Pin-32 (40 pin Connector)

Mapping of PWM function (Device Driver) to physical pin(s) Requires Software Configuration Tool written python.

(DT.: Device Tree)

Note:

Note: I2C and UART pins are connected to hardware and should not be reassigned. By default, all other pins (except power) are assigned as GPIO. Pins labeled with other functions are recommended functions if using a different device tree.

Fix the "Bug" By 4 steps

Step 1. Fix bugs from the distribution

Configurati

1. $sudo find /opt/nvidia/jetson-io/ -mindepth 1 -ma
2. $sudo /opt/nvidia/jetson-io/config-by-pin.py -p 5
3. $sudo mkdir -p /boot/dtb
4. $ ls /boot/*.dtb | xargs -I{} sudo ln -s {} /boot/dtb/

Note, on the UI, Be sure to select "Save & Reboot"

Be sure to choose save and reboot to reboot the system

/boot/tegra210-

Choose pin32 as PWM pin.

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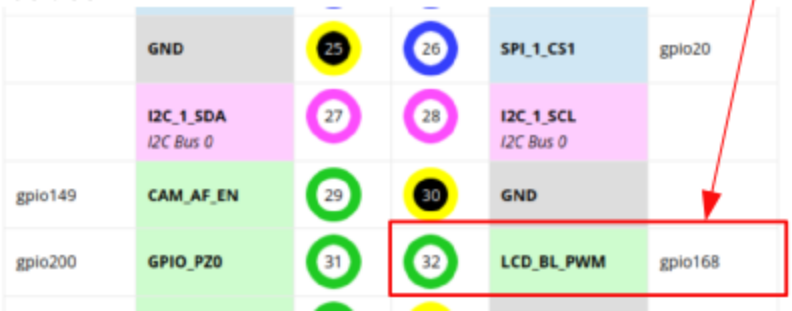
ded functions if using a
evice tree.

Use pin 32 for PWM



Then, use Command Line Instruction (CLI) to Access to PWM.

Then, enter the following instructions.
Use DSC. or Logic Analyzer to Observe the output.

```
cd /sys/class/pwm/pwmchip0
echo 0 > export
sleep 1
cd pwm0
echo 5000000 > period
echo 2500000 > duty_cycle
echo 1 > enable
```

Define as in Hz

Output high defined as in Hz