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Firmware Flash Guide for Voltboard / Panda on OnePlus 3/3T (WINDOWS)

> **For this guide, you will need:**
> - OP3 w/ NEOS connected via SSH w/ "root" access
> - Voltboard Power Cable
> - Panda Power Cable
> - Male-to-Male USB-A Cable
> - USB-C to A OTG Cable
>
> If you are starting with a stock OP3 or EON, we recommend you first flash NEOS & the Voltboard-variant of Openpilot before continuing this guide. Guides for both can be found here: (http://openboards.io/resources/).
>
> At the conclusion of this guide, you should have completed all the software steps necessary for Voltboard + Panda integration with the 2016+ Chevrolet Volt with ACC. Please note: stock versions of this vehicle without the forward facing radar will not work.

1. You will first need to gain "root" access to your OP3 running NEOS over SSH. If these words are foreign to you, try our "SSH Instruction for NEOS" guide at (http://openboards.io/resources/)

2. `killall boardd`

3. Plug voltboard power cable into power. Plug other side into RJ-45 jack on voltboard.
   Plug voltboard usb male into the OTG cable female connected to the OP3.

4. `cd /data`

5. `git clone https://github.com/vntarasov/panda.git panda --branch voltboard-vt`

6. `cd panda`

7. `PYTHONPATH=../ python -c "from panda import Panda; Panda().flash()"`

8. Unplug USB OTG cable from voltboard. Unplug power cable from voltboard.

9. Plug panda into panda power cable. This provides power to the panda while flashing. Take the male-to-male USB-A cable and plug one end into panda, the other end into the OTG cable connected to the OP3.

10. `git checkout volt-panda-can-forwarding`

11. `PYTHONPATH=../ python -c "from panda import Panda; Panda().flash()"`

12. `reboot`

Congrats! You have now flashed the Voltboard and the Panda!

After completing this step, and the Voltboard Openpilot flash, all necessary software flashing should be completed. For pinout, installation, or cable guides, checkout: http://openboards.io/resources/ for more information. Happy Hacking!