



Colorado Engineering, Inc.
1915 Jamboree Drive Suite 165
Colorado Springs, CO 80920
719-388-8582
www.coloradoengineering.com

Customer Flash TK1-SOM V0.9 (Release V1.0 when <CEI TK1-SOM FTP> is up)

Prerequisites: *These are not absolute but have not been tested on other Linux distributions

- Host machine that is running Linux (Tested: Ubuntu 12.04 with kernel 3.13.0-57-generic)
- Admin privileges
- USB to micro-USB adapter cable connected from host machine to TK1-SOM's micro-USB

- 1) From <https://developer.nvidia.com/linux-tegra-r213> or <enter CEI TK1-SOM FTP> Download the **Driver Packages** "Tegra124_Linux_R21.3.0_armhf.tbz2" and the **Sample File System** "Tegra_Linux_Sample-Root-Filesystem_R21.3.0_armhf.tbz2"
 - a. Also download tk1-som files from <enter CEI TK1-SOM FTP>
- 2) mkdir /home/<computer name>/bsp (alternatively right click and make a "New Folder" bsp)
- 3) move the two tbz2 files downloaded in step 1 to new bsp directory made in step 2 and tar them
 - a. cp -a /home/<comp name>/Downloads/Tegra124_Linux_R21.3.0_armhf.tbz2 /home/<comp name>/bsp
 - b. cp -a /home/<comp name>/Downloads/"Tegra_Linux_Sample-Root-Filesystem_R21.3.0_armhf.tbz2" /home/<comp name>/bsp
 - c. cd /home/<comp_name>/bsp
 - d. tar xpf Tegra124_Linux_R21.3.0_armhf.tbz2
 - e. cd Linux_for_Tegra/rootfs/
 - f. sudo tar xpf ../../Tegra_Linux_Sample-Root-Filesystem_R21.3.0_armhf.tbz2
- 4) Copy the TK1-SOM_Files/Linux_for_Tegra files to overwrite Jetson flash files
 - a. sudo cp -ar /home/<comp name>/Downloads/TK1-SOM_Files/Linux_for_Tegra/* /home/<comp name>/bsp/Linux_for_Tegra
- 5) Add compiled kernel to the root file system
 - a. cd ../ //change directory to ~/bsp/Linux_for_Tegra to apply binaries shell
 - b. sudo ./apply_binaries-tk1-som.sh
- 6) Put board in Force Recovery Mode
 - a. Hold Force recovery tactile button down while pressing and releasing the reset button
 - b. lsusb will show "NVida Corp" if successfully entered Force Recovery Mode

7) Flash TK1-SOM

- a. `sudo ./flash.sh -L bootloader/ardbeg/u-boot.bin tk1-som_NoBID mmcblk0p1`
 - i. do not auto-complete tk1-som_NoBID (Or remove “.conf” after autocomplete)