

Spin-off from [Chromebook](#) page to document running mainline u-boot and Linux on Exynos

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Contents: [[Dobrica PavlinuÄiÄ 's random unstructured stuff](#)]

- [Dobrica PavlinuÄiÄ 's random unstructured stuff \(u-boot\)](#)
  - ◆ [Dobrica PavlinuÄiÄ 's random unstructured stuff \(SPI eeprom image\)](#)
  - ◆ [Dobrica PavlinuÄiÄ 's random unstructured stuff \(chromiumos build\)](#)
  - ◆ [Dobrica PavlinuÄiÄ 's random unstructured stuff \(pxelinux config\)](#)
- [Dobrica PavlinuÄiÄ 's random unstructured stuff \(kernel\)](#)
  - ◆ [Dobrica PavlinuÄiÄ 's random unstructured stuff \(chromiumos kernel\)](#)
- [Dobrica PavlinuÄiÄ 's random unstructured stuff \(security\)](#)

## u-boot

### SPI eeprom image

```
dpavlin@klin:/klin/u-boot$ cat build-spi.sh
#!/bin/sh -xe

make
#cp /klin/books/Chromebook/spi/snow-bricked.rom .
cp snow-bricked.rom snow-mix.rom
dd conv=notrunc if=spl/smdk5250-spl.bin of=snow-mix.rom seek=$((0x00002000)) bs=1
dd conv=notrunc if=u-boot.bin of=snow-mix.rom seek=$((0x00006000)) bs=1
scp snow-mix.rom rpi2:chromebook/
```

Upstream u-boot works, but can't find mmc devices, so internal flash is not accessible, so I had to boot from USB network using u-boot pxe

### chromiumos build

```
dpavlin@klin:/klin/chromebook$ . env.sh
dpavlin@klin:/klin/chromebook/chromiumos$ cros_sdk
```

- apply some patches (or not) as described at

```
(cr) (altAddr) dpavlin@klin ~/trunk/src/third_party/u-boot/files $ emerge-${BOARD} chromeos-u-bo
```

# pxelinux config

```
dpavlin@x230:/var/tftp/pxelinux.cfg$ cat default-arm-exynos  
TIMEOUT 10
```

```
MENU TITLE TFTP boot
```

```
LABEL snow
```

```
    MENU LABEL sdcard?
```

```
    LINUX ../zImage
```

```
    FDTDIR ../
```

```
    APPEND console=tty1 console=ttyS0,115200n8 loglevel=8 rootwait rw earlyprintk root=/dev/s
```

# kernel

doesn't boot ATM

```
dpavlin@klin:/klin/imx6/linux-imx$ cat build-chromebook.sh  
#
```

```
cd /klin/chromebook/chromiumos/src/third_party/kernel/v4.4
```

```
export CROSS_COMPILE="arm-linux-gnueabihf-" ARCH=arm
```

```
test ! -f .config && make exynos_defconfig
```

```
make -j4 zImage exynos5250-snow.dtb
```

```
cp -v arch/arm/boot/zImage arch/arm/boot/dts/exynos5250-snow.dtb /media/boot/
```

# chromiumos kernel

<https://github.com/dnschneid/crouton/wiki/Build-chrome-os-kernel-and-kernel-modules>

# security

(might not be related, but useful to keep track of)

- <https://fredericb.info/2020/06/exynos8890-bootrom-dump-dump-exynos-8890-bootrom-from-samsung/>
- <https://fredericb.info/2020/06/reverse-engineer-usb-stack-of-exynos-bootrom.html>
  - ◆ <https://github.com/frederic/exynos8890-bootrom-dump>