Spin-off from Chromebook papge to document running mainline u-boot and Linux on Exynos

t=0x88af0a8 [0,0]

Contents: [Dobrica PavlinuÅ¡iÄ 's random unstructured stuff]

- Dobrica PavlinuÅ¡iÄ 's random unstructured stuff (u-boot)
  - Dobrica PavlinuÅ¡iÄ 's random unstructured stuff (SPI eeprom image)
  - Dobrica PavlinuÅ¡iÄ 's random unstructured stuff (chromiumos build)
  - Dobrica PavlinuÅ¡iÄ 's random unstructured stuff (pxelinux config)
- Dobrica PavlinuÅ¡iÄ 's random unstructured stuff (kernel)
  - Dobrica PavlinuÅ¡iÄ 's random unstructured stuff (chromiumos kernel)
- Dobrica PavlinuÅ¡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 accessable, 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-boo
```

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-samsun
- https://fredericb.info/2020/06/reverse-engineer-usb-stack-of-exynos-bootrom.html
    - https://github.com/frederic/exynos8890-bootrom-dump