

Aufgabenblatt 04

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27068

2.a

Man findet die Datei mit `find . -name bcm2710-rpi-3-b.dts` - die richtige für den B+ ist die `./linux/arch/arm/boot/dts/bcm2710-rpi-3-b-plus.dts` (gefunden durch `find . -name bcm2710-rpi-3-b-*.dts`)

2.b

```
&leds {
    act_led: led-act {
        label = "led0";
        linux,default-trigger = "heartbeat";
        gpios = <&gpio 29 0>;
    };

    pwr_led: led-pwr {
        label = "led1";
        linux,default-trigger = "default-on";
        gpios = <&expgpio 2 GPIO_ACTIVE_LOW>;
    };
};
```

2.c

Leider ist mir die 1. Version diese Dokumentation durch einen Dateiverlust abhanden gekommen - somit weiß ich leider nicht mehr welches Paket gefehlt hat. Ich konnte mich nur noch dran erinnern, `gcc` nachinstalliert zu haben.

3.a

```
Linux target068.local 5.10.103-v7+ #1529 SMP Tue Mar 8 12:21:37 GMT 2022 armv7l GNU/Linu
```

3.b

Verschieben der Datei mit `sudo mv $KERNEL ${KERNEL}_old`

3.c

```
Linux target068.local 5.10.63-v7+ #1 SMP Thu Apr 25 14:46:37 UTC 2024 armv7l GNU/Linux
```

```
[pi@target068:~ $ ls -lt /boot
```

```
total 54989
```

```
-rwxr-xr-x 1 root root 29562 Apr 25 16:33 bcm2710-rpi-3-b-plus.dtb
-rwxr-xr-x 1 root root 29756 Apr 25 16:32 bcm2701-rpi-3-b-plus-old
-rwxr-xr-x 1 root root 6392440 Apr 25 16:30 kernel7.img
-rwxr-xr-x 1 root root 6366112 Apr 25 16:23 kernel17_old.img
-rwxr-xr-x 1 root root 8385 Apr 25 14:16 fixup4db.dat
-rwxr-xr-x 1 root root 8387 Apr 25 14:16 fixup4x.dat
-rwxr-xr-x 1 root root 1594 Apr 25 14:16 LICENCE.broadcom
-rwxr-xr-x 1 root root 3171 Apr 25 14:16 fixup4cd.dat
-rwxr-xr-x 1 root root 5399 Apr 25 14:16 fixup4.dat
-rwxr-xr-x 1 root root 3747688 Apr 25 14:16 start4db.elf
-rwxr-xr-x 1 root root 2998888 Apr 25 14:16 start4x.elf
-rwxr-xr-x 1 root root 52476 Apr 25 14:16 bootcode.bin
-rwxr-xr-x 1 root root 3171 Apr 25 14:16 fixup_cd.dat
-rwxr-xr-x 1 root root 7262 Apr 25 14:16 fixup.dat
-rwxr-xr-x 1 root root 10230 Apr 25 14:16 fixup_db.dat
-rwxr-xr-x 1 root root 10232 Apr 25 14:16 fixup_x.dat
-rwxr-xr-x 1 root root 805724 Apr 25 14:16 start4cd.elf
-rwxr-xr-x 1 root root 2251392 Apr 25 14:16 start4.elf
-rwxr-xr-x 1 root root 805724 Apr 25 14:16 start_cd.elf
-rwxr-xr-x 1 root root 4819624 Apr 25 14:16 start_db.elf
-rwxr-xr-x 1 root root 3722504 Apr 25 14:16 start_x.elf
-rwxr-xr-x 1 root root 2975616 Apr 25 14:16 start.elf
drwxr-xr-x 2 root root 20992 Apr 25 14:15 overlays
-rwxr-xr-x 1 root root 28525 Apr 25 14:14 bcm2710-rpi-zero-2.dtb
-rwxr-xr-x 1 root root 50013 Apr 25 14:14 bcm2711-rpi-400.dtb
-rwxr-xr-x 1 root root 49985 Apr 25 14:14 bcm2711-rpi-4-b.dtb
-rwxr-xr-x 1 root root 50691 Apr 25 14:14 bcm2711-rpi-cm4.dtb
-rwxr-xr-x 1 root root 18693 Apr 25 14:14 COPYING.linux
-rwxr-xr-x 1 root root 26108 Apr 25 14:14 bcm2708-rpi-cm.dtb
-rwxr-xr-x 1 root root 25931 Apr 25 14:14 bcm2708-rpi-zero.dtb
-rwxr-xr-x 1 root root 27282 Apr 25 14:14 bcm2708-rpi-zero-w.dtb
-rwxr-xr-x 1 root root 27332 Apr 25 14:14 bcm2709-rpi-2-b.dtb
-rwxr-xr-x 1 root root 27481 Apr 25 14:14 bcm2710-rpi-2-b.dtb
-rwxr-xr-x 1 root root 29137 Apr 25 14:14 bcm2710-rpi-3-b.dtb
-rwxr-xr-x 1 root root 27469 Apr 25 14:14 bcm2710-rpi-cm3.dtb
-rwxr-xr-x 1 root root 28525 Apr 25 14:14 bcm2710-rpi-zero-2-w.dtb
-rwxr-xr-x 1 root root 26186 Apr 25 14:14 bcm2708-rpi-b.dtb
-rwxr-xr-x 1 root root 26457 Apr 25 14:14 bcm2708-rpi-b-plus.dtb
-rwxr-xr-x 1 root root 25797 Apr 25 14:14 bcm2708-rpi-b-rev1.dtb
-rwxr-xr-x 1 root root 7916371 Apr 25 14:14 kernel8.img
-rwxr-xr-x 1 root root 6790336 Apr 25 14:14 kernel7l.img
-rwxr-xr-x 1 root root 6016088 Apr 25 14:14 kernel.img
-rwxr-xr-x 1 root root 1798 Apr 25 13:09 config.txt
-rwxr-xr-x 1 root root 121 Apr 25 13:09 cmdline.txt
-rwxr-xr-x 1 root root 145 Dec 2 2020 issue.txt
```

```
pi@target068:~ $
```