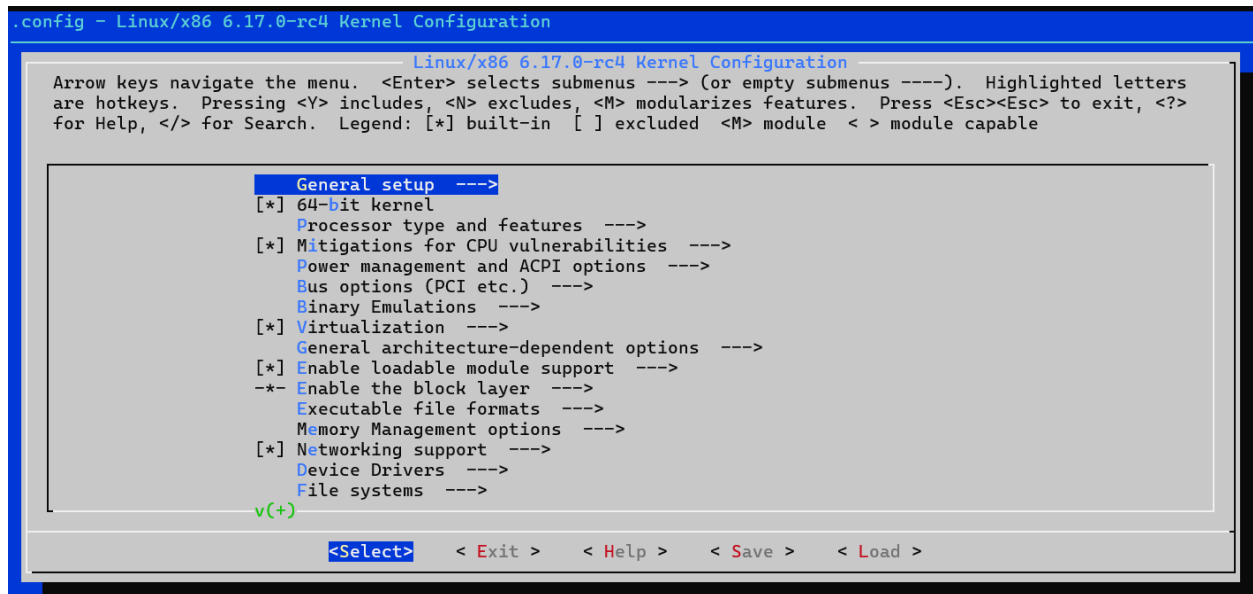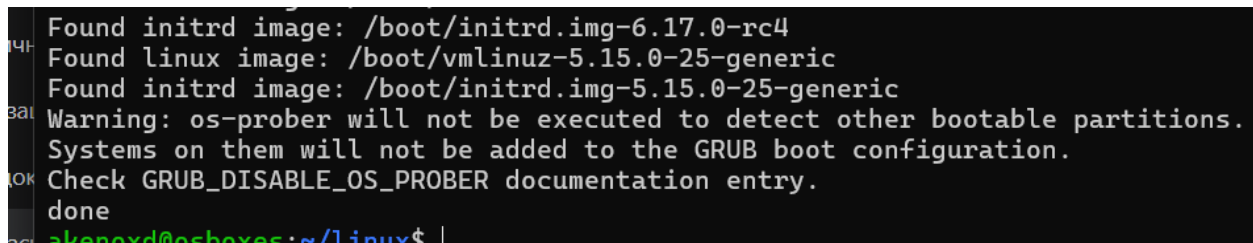# Ядро

make defconfig
make menuconfig

Довольно долго пробовал отключать ненужное, начиная с драйверов, но в итоге ядро ни разу не собралось. Получилось только с defconfig

сохранили, собрали
make
sudo make install

sudo update-grub

```
akenoxd@osboxes:~/linux$ sudo update-grub
Sourcing file `/etc/default/grub'
Sourcing file `/etc/default/grub.d/init-select.cfg'
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-6.17.0-rc4
Found initrd image: /boot/initrd.img-6.17.0-rc4
Found linux image: /boot/vmlinuz-6.17.0-rc4.old
Found initrd image: /boot/initrd.img-6.17.0-rc4
Found linux image: /boot/vmlinuz-5.15.0-25-generic
Found initrd image: /boot/initrd.img-5.15.0-25-generic
Warning: os-prober will not be executed to detect other bootable partitions.
Systems on them will not be added to the GRUB boot configuration.
Check GRUB_DISABLE_OS_PROBER documentation entry.
done
```

перезагрузились
sudo reboot

6.17.0-rc4 – новое ядро

```
              GNU GRUB   version 2.06

 ┌──────────────────────────────────────────────────────────┐
 │*Ubuntu, with Linux 6.17.0-rc4                             │
 │ Ubuntu, with Linux 6.17.0-rc4 (recovery mode)            │
 │ Ubuntu, with Linux 6.17.0-rc4.old                        │
 │ Ubuntu, with Linux 6.17.0-rc4.old (recovery mode)        │
 │ Ubuntu, with Linux 5.15.0-25-generic                     │
 │ Ubuntu, with Linux 5.15.0-25-generic (recovery mode)     │
 │                                                          │
 │                                                          │
 │                                                          │
 │                                                          │
 │                                                          │
 │                                                          │
 │                                                          │
 └──────────────────────────────────────────────────────────┘
```

загрузились

```
Last login: Sun Sep
akenoxd@osboxes:~$ ls
linux
uname -r
6.17.0-rc4
akenoxd@osboxes:~$
```

Ядро под arm

собрали ядро
ARCH=arm CROSS_COMPILE=arm-linux-gnueabihf- make zImage -j12

собрали dtb
ARCH=arm make dtbs -j12

скопировали в одну папку, запустили в qemu
qemu-system-arm -M vexpress-a9 -kernel zImage -dtb vexpress-v2p-ca9.dtb
-append"console=ttyAMA0" -nographic

```
[    1.885295]
[    1.885445] Kernel panic - not syncing: VFS: Unable to mount root fs on unknown-block(0,0)
[    1.896386] CPU: 0 UID: 0 PID: 1 Comm: swapper/0 Not tainted 6.17.0-rc5 #1 NONE
[    1.896868] Hardware name: ARM-Versatile Express
[    1.897282] Call trace:
[    1.897755]   unwind_backtrace from show_stack+0x10/0x14
[    1.898929]   show_stack from dump_stack_lvl+0x54/0x68
[    1.899415]   dump_stack_lvl from vpanic+0xf4/0x304
[    1.899912]   vpanic from panic+0x2c/0x30
[    1.900555]   panic from mount_root_generic+0x1fc/0x2b0
[    1.900988]   mount_root_generic from prepare_namespace+0x1fc/0x258
[    1.901638]   prepare_namespace from kernel_init+0x1c/0x12c
[    1.902143]   kernel_init from ret_from_fork+0x14/0x28
[    1.902374] Exception stack(0xc8825fb0 to 0xc8825ff8)
[    1.902934] 5fa0:                                     00000000 00000000 00000000 00000000
[    1.903805] 5fc0: 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
[    1.904253] 5fe0: 00000000 00000000 00000000 00000000 00000013 00000000
[    1.905222] ---[ end Kernel panic - not syncing: VFS: Unable to mount root fs on unknown-block(0,0) ]---
QEMU: Terminated
```