Ядро

make defconfig make menuconfig

```
config - Linux/x86 6.17.0-rc4 Kernel Configuration
    Arrow keys navigate the menu. <Enter> selects submenus ---> (or empty submenus ----). Highlighted letters are hotkeys. Pressing <Y> includes, <N> excludes, <M> modularizes features. Press <Esc><Esc> to exit, <?> for Help, </> for Search. Legend: [*] built-in [] excluded <M> module <> module capable
                                       General setup
                                 [*] 64-bit kernel
                                       Processor type and features
                                 [*] Mitigations for CPU vulnerabilities --->
                                      Power management and ACPI options --->
Bus options (PCI etc.) --->
Binary Emulations --->
                                [*] Virtualization
                                       General architecture-dependent options --->
                                 [*] Enable loadable module support
                                     Enable the block layer --->
Executable file formats --->
                                       Memory Management options --->
                                [*] Networking support
                                      Device Drivers --->
File systems --->
                                           <Select>
                                                             < Exit >
                                                                               < Help >
                                                                                                 < Save >
                                                                                                                    < Load >
```

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

```
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

ac akenoxd@osboxes:~/linux$
```

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
Found initrd image: /boot/vmlinuz-6.17.0-rc4
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

```
#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

```
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 zlmage -j12

собрали dtb ARCH=arm make dtbs -j12

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

```
Kernel panic - not syncing: VFS: Unable to mount root fs on unknown-block(0,0)
CPU: 0 UID: 0 PID: 1 Comm: swapper/0 Not tainted 6.17.0-rc5 #1 NONE
Hardware name: ARM-Versatile Express
       1.885445]
      1.896386]
      1.896868]
      1.897282] Call trace:
1.897755] unwind_bac
                    unwind_backtrace from show_stack+0x10/0x14
                   show_stack from dump_stack_lvl+0x54/0x68
dump_stack_lvl from vpanic+0xf4/0x304
vpanic from panic+0x2c/0x30
panic from mount_root_generic+0x1fc/0x2b0
      1.898929]
      1.899415]
      1.899912]
      1.900555]
         .900988] mount_root_generic from prepare_namespace+0x1fc/0x258

.901638] prepare_namespace from kernel_init+0x1c/0x12c

.902143] kernel_init from ret_from_fork+0x14/0x28

.902374] Exception stack(0xc8825fb0 to 0xc8825ff8)
      1.900988]
       1.901638]
         .902934] 5fa0:
                                                                              00000000 00000000 00000000 00000000
         1.905222]
                   ---[ end Kernel panic - not syncing: VFS: Unable to mount root fs on unknown-block(0,0) ]---
QEMU: Terminated
```