Linux kernel programming Embedded Sytems

- System calls use special interrupt (INT 80 in x86)
- Arguments stored in registers in specified order
- Interrupt switches to kernel mode, and uses table to lookup kernel function which processes system call
- system call returns value in register rax
- return value in range between -4095 and -1 indicates error.

Kernel code for system calls:

- Have system call table in arch/x86/syscalls
- Used during kernel compilation process to generate array of system calls
- Assembly code for handling system calls is in arch/x86/kernel/entry_64.S
- Argument handling done via special SYSCALL_DEFINE macros

No sanity checks of arguments made in system call code

⇒ kernel function needs to make all sanity checks