# COL788: Advanced Topics in Embedded Computing

Lecture 14 – Boot Sequence


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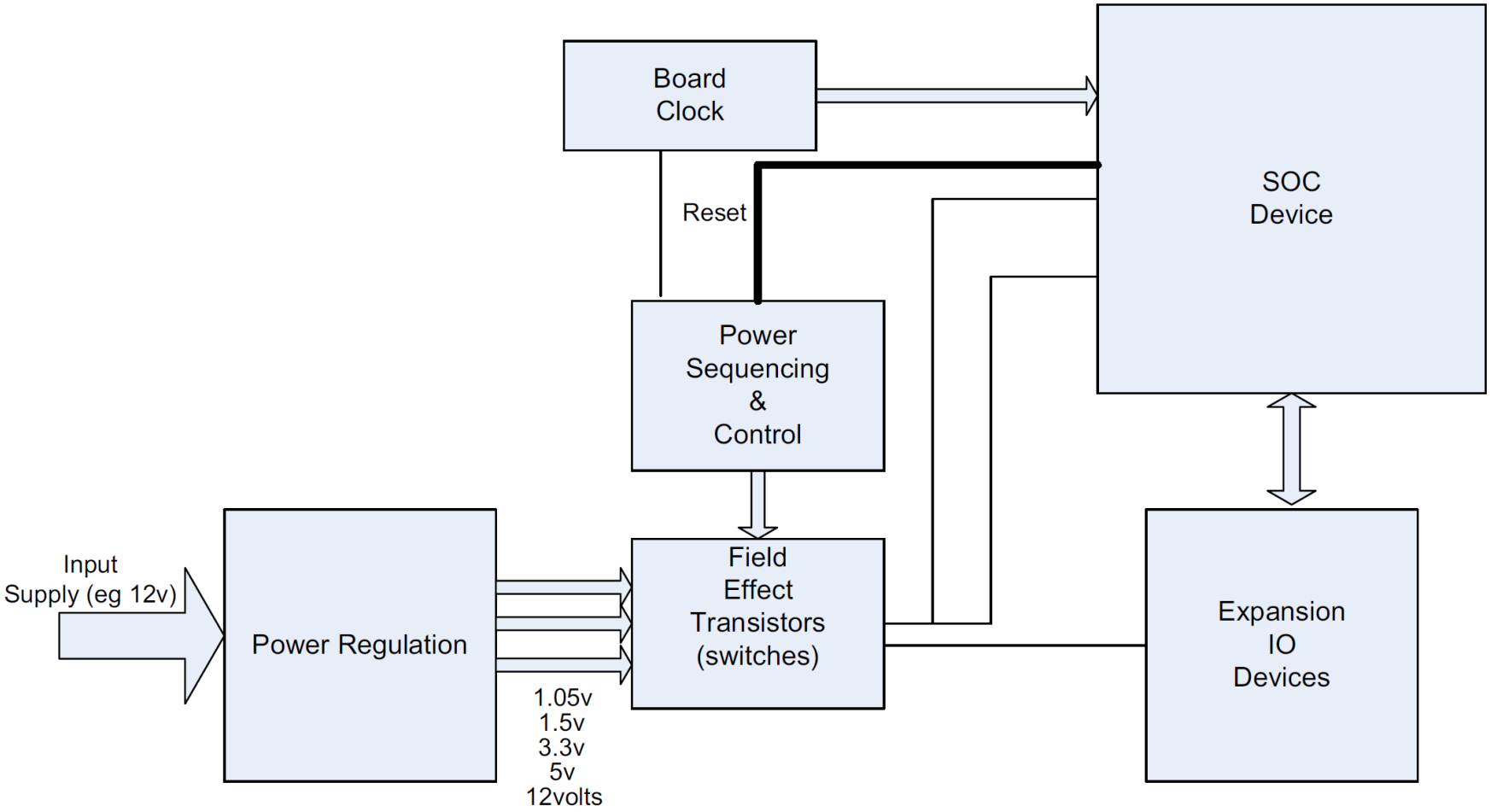
# Outline

- Previously
  - System Architecture
  - Processor Architecture
  - Memory

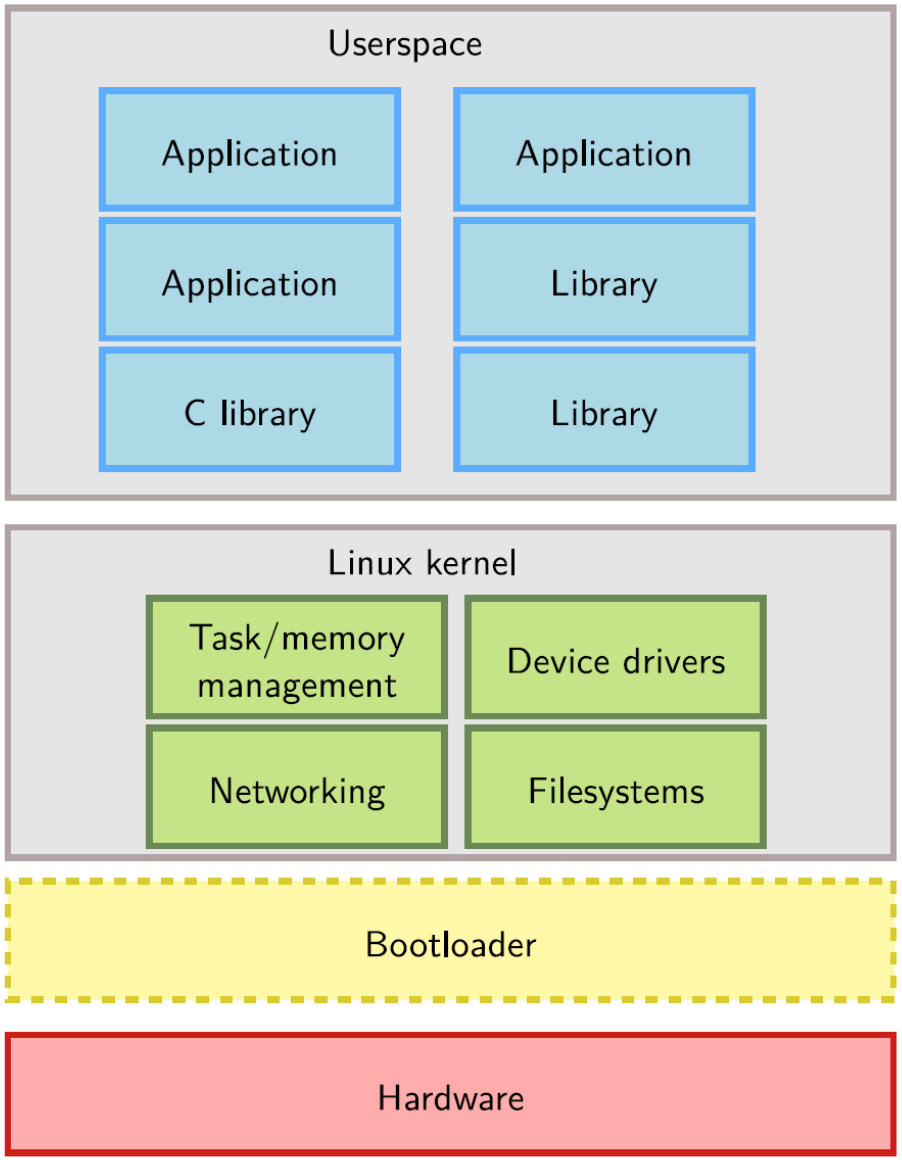
- Next
  - Boot Sequence
  - Operating System
  - Embedded Linux

# Power Sequencing



# Boot Sequence

- System Startup
  - Bootloader
  - Kernel
  - Init Process



# Bootloader

- The bootloader is a piece of code responsible for
  - Basic hardware initialization
  - Loading of an application binary, usually an operating system kernel, from flash storage, from the network, or from another type of non-volatile storage.
  - Possibly decompression of the application binary
  - Execution of the application

# U (Universal)-Boot Bootloader

- U-Boot is a typical free software project
  - License: GPLv2 (same as Linux)
  - Freely available at https://www.denx.de/wiki/U-Boot

- Development and discussions happen around an open mailing-list

- Follows a regular release schedule. Every 2 or 3 months, a new version is released.

# What’s Next?

- Lecture 15
  - September 12, Monday, 11 am – 12 pm