Embedded Systems

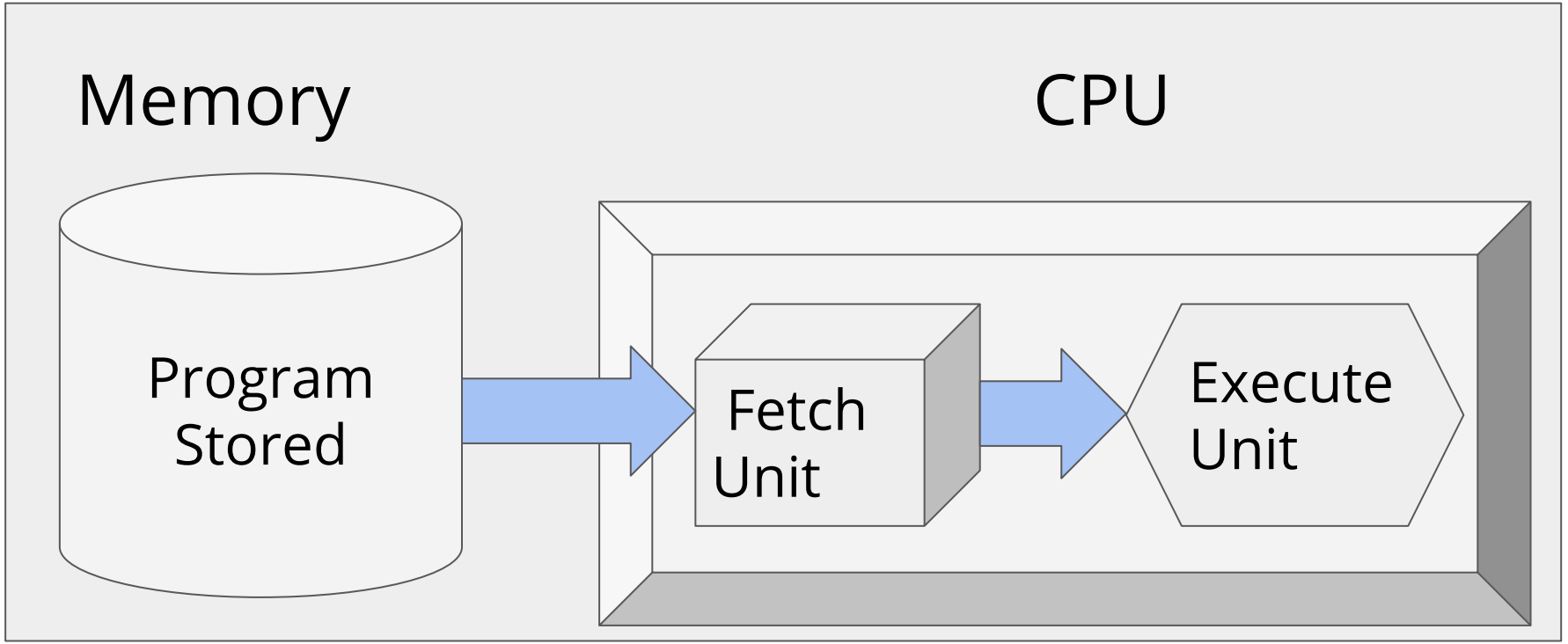
1 Week Review

What are Embedded Systems?

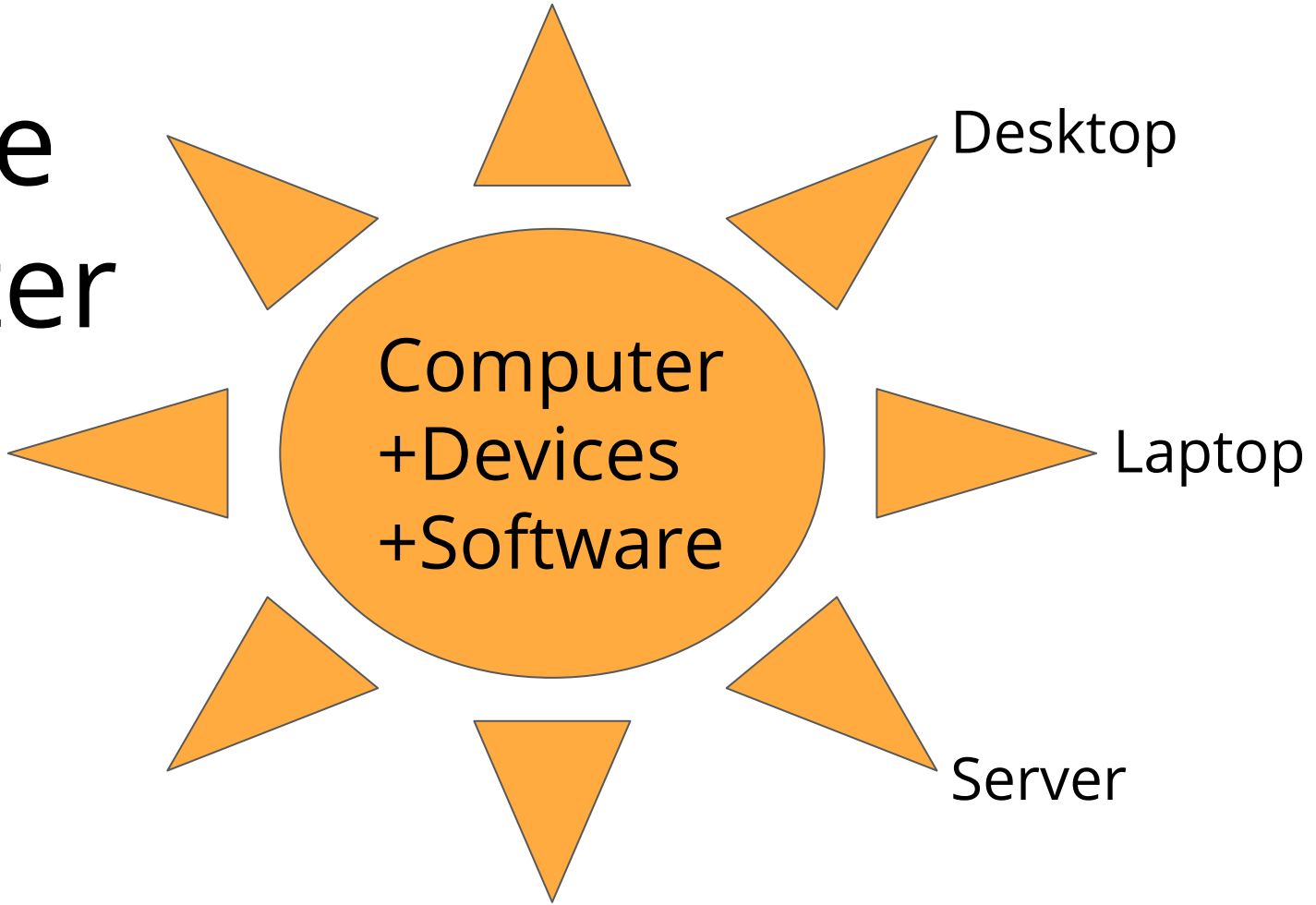
Computer

General-Purpose Computer

Computer



General -Purpose Computer



Embedded System

Has a computer

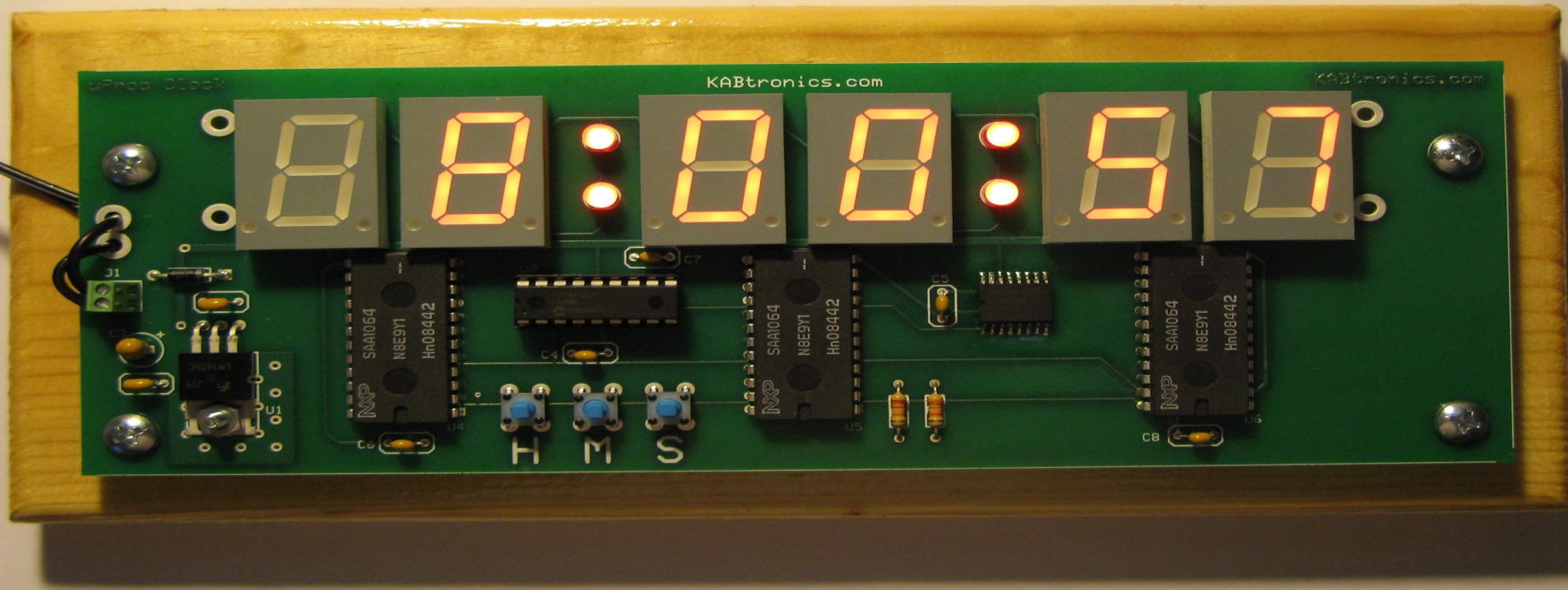
Not intended general purpose computer

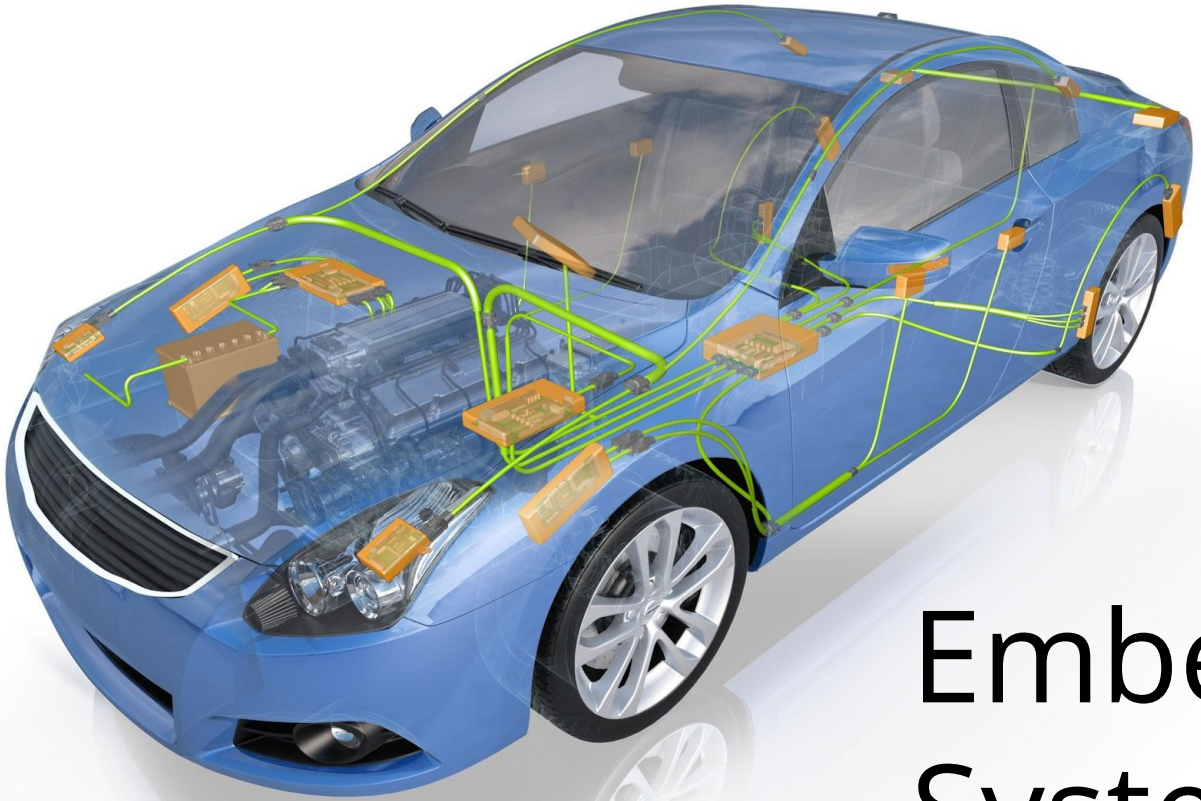
Embedded System

Fax machine

Embedded System

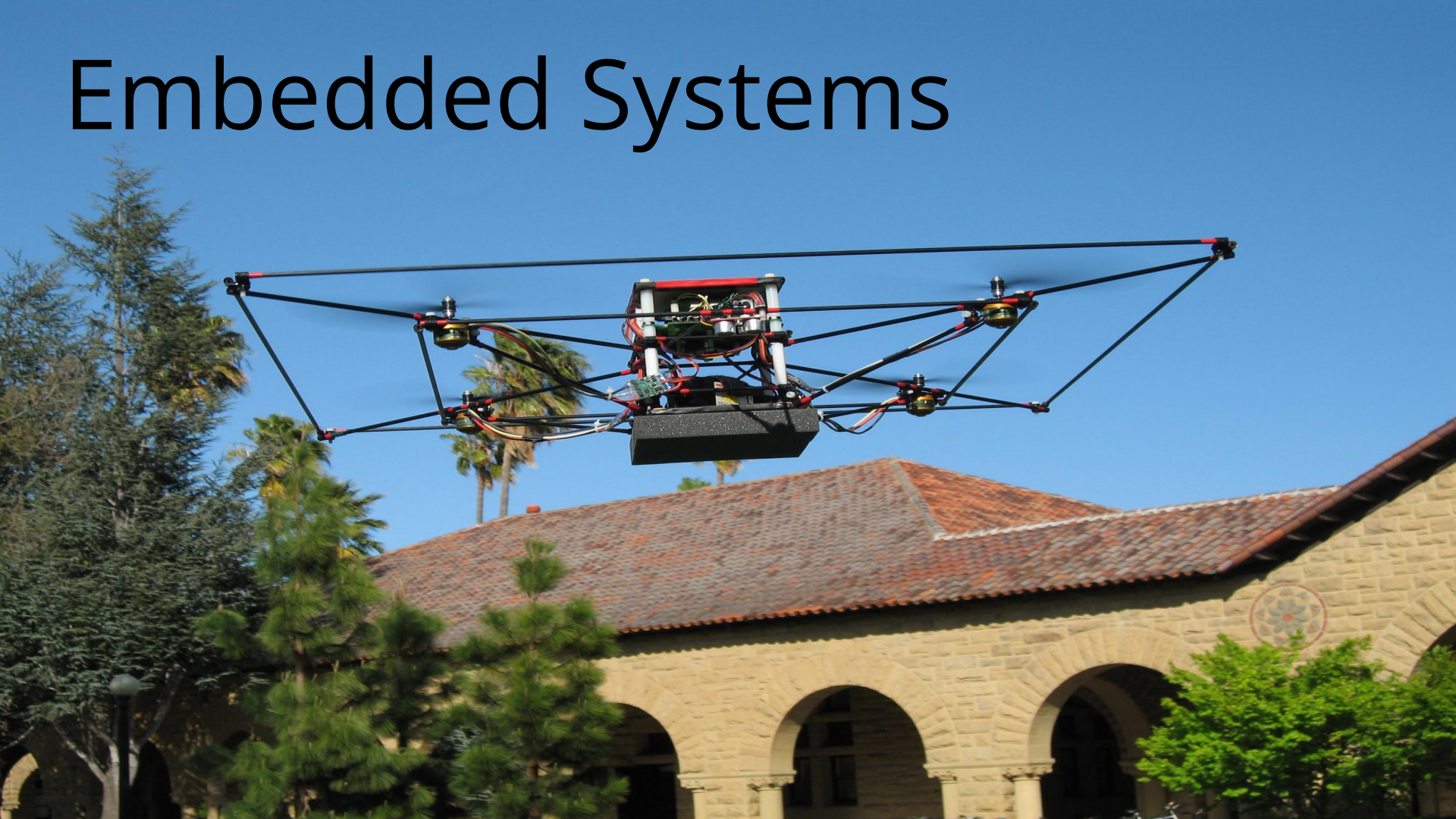
Clock





Embedded System

Embedded Systems

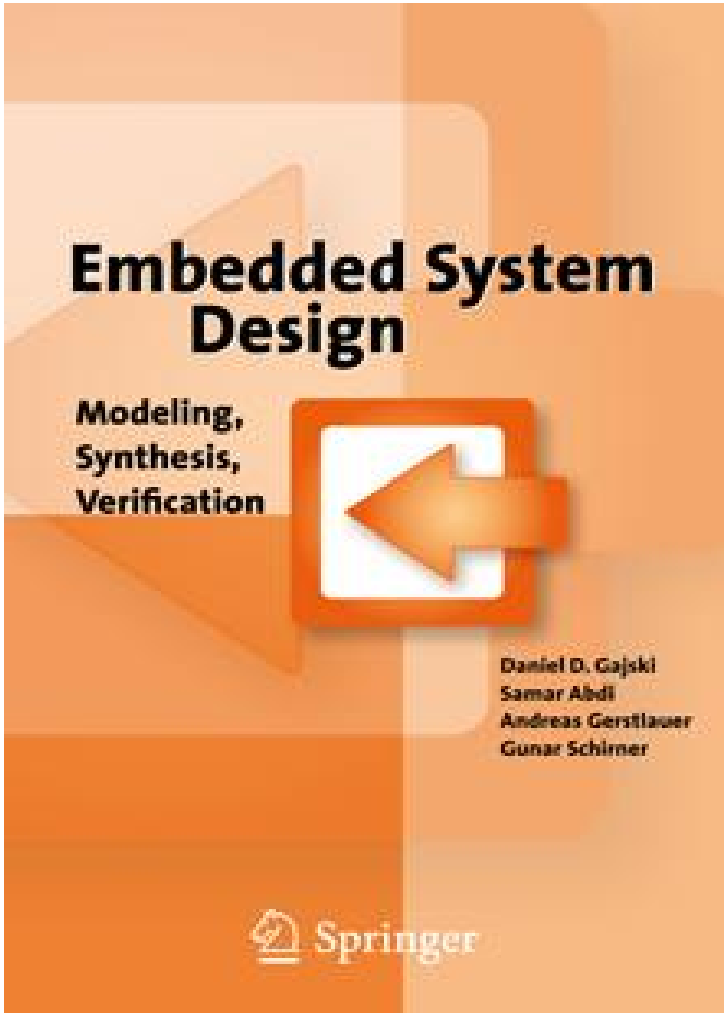


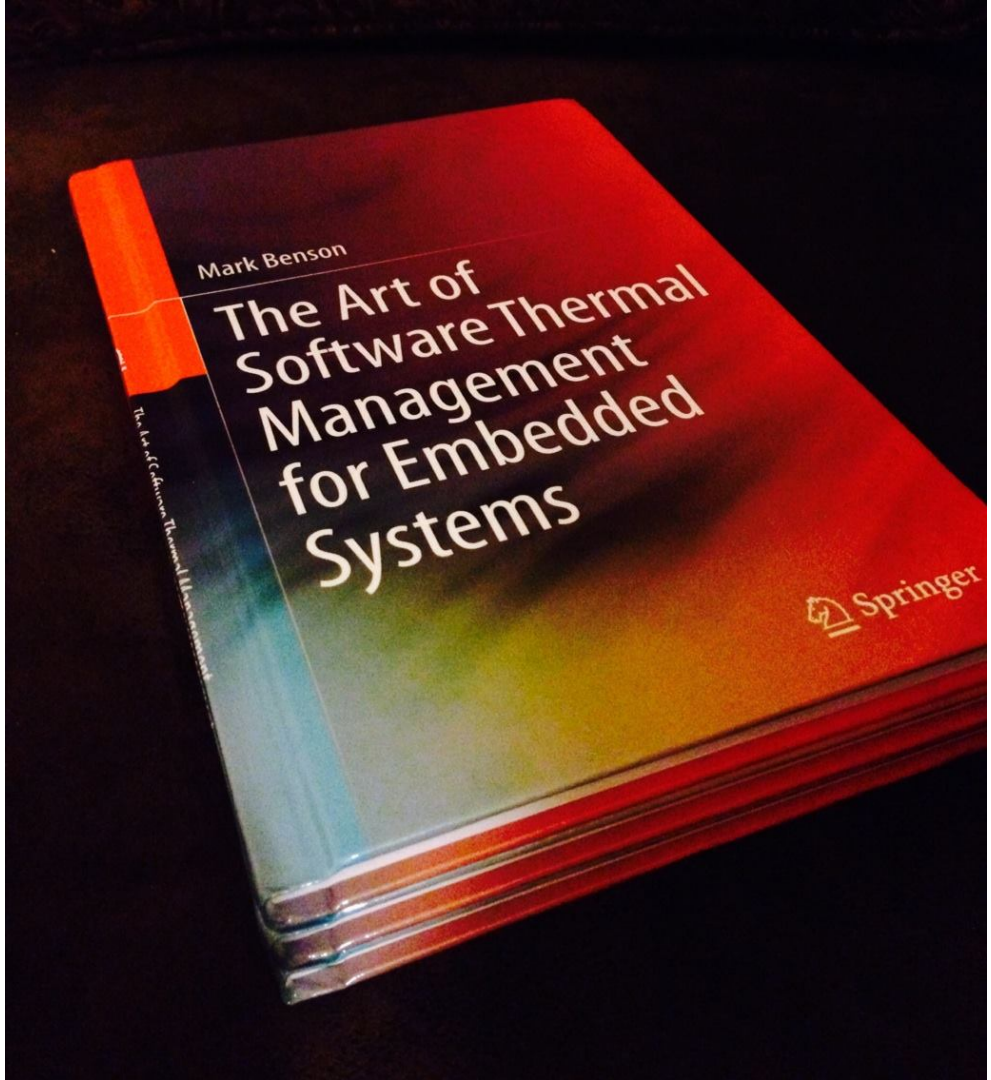
Embedded System

Embedded System Design

Hardware with I/O devices

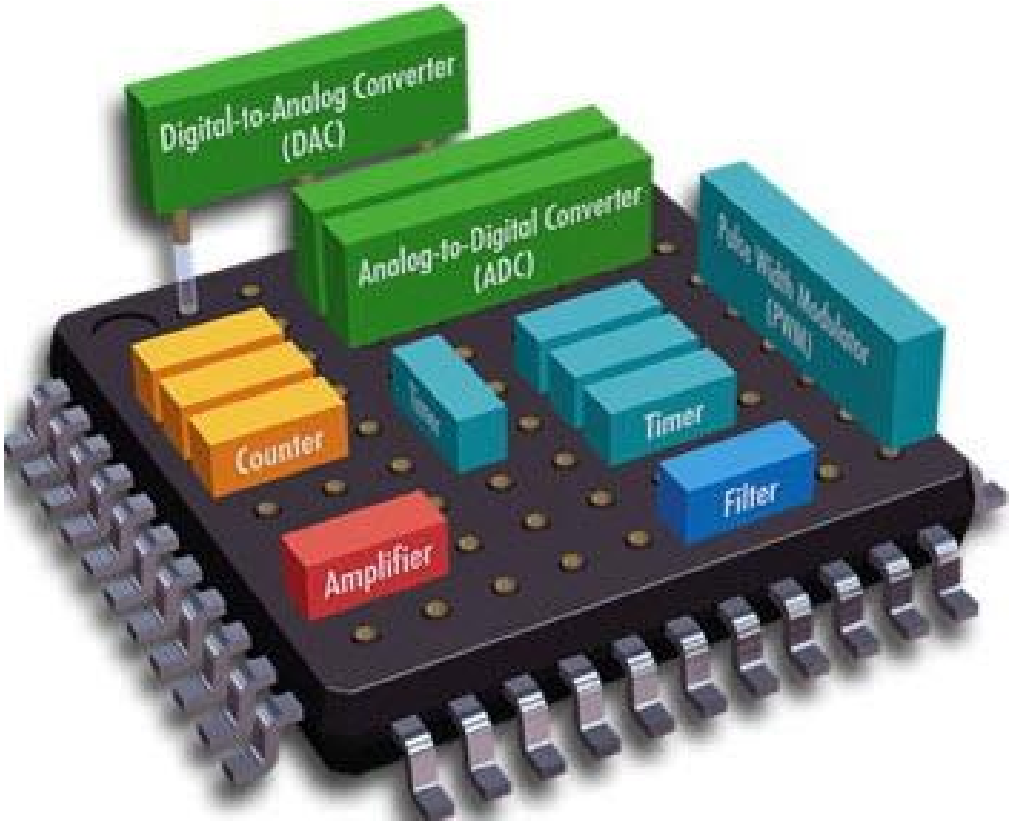
Software


Embedded System Design
Modeling, Synthesis, Verification
Daniel D. Gajski
Samar Abdi
Andreas Gerstlauer
Gunar Schirner
Springer


Mark Benson
The Art of Software Thermal Management for Embedded Systems
Springer

Embedded System Design

Electrical Engineering



Characteristics Emb.Sys

1. Functionality
    a. Complex Algorithms e.g. Automotive
    b. User Interface e.g. Moving Maps

Characteristics Emb.Sys

2. Deadlines

    Real-time

    Multirate

Characteristics Emb.Sys

3. Cost

    Manufacturing Costs

    Power and Energy