# Control systems and Computer Networks

## Embedded and Networked Systems

Dr Alun Moon

Lecture 1.2

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- Networked communicates with other devices and computers to co-ordinate actions and distribute the workload.

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  - No chance for future *in service* modifications

# Jacqard Loom

## Early industrial automation

- Punched Cards controlling loom
- 1804
- manufacturing textiles with such complex patterns as brocade, damask and matelassé

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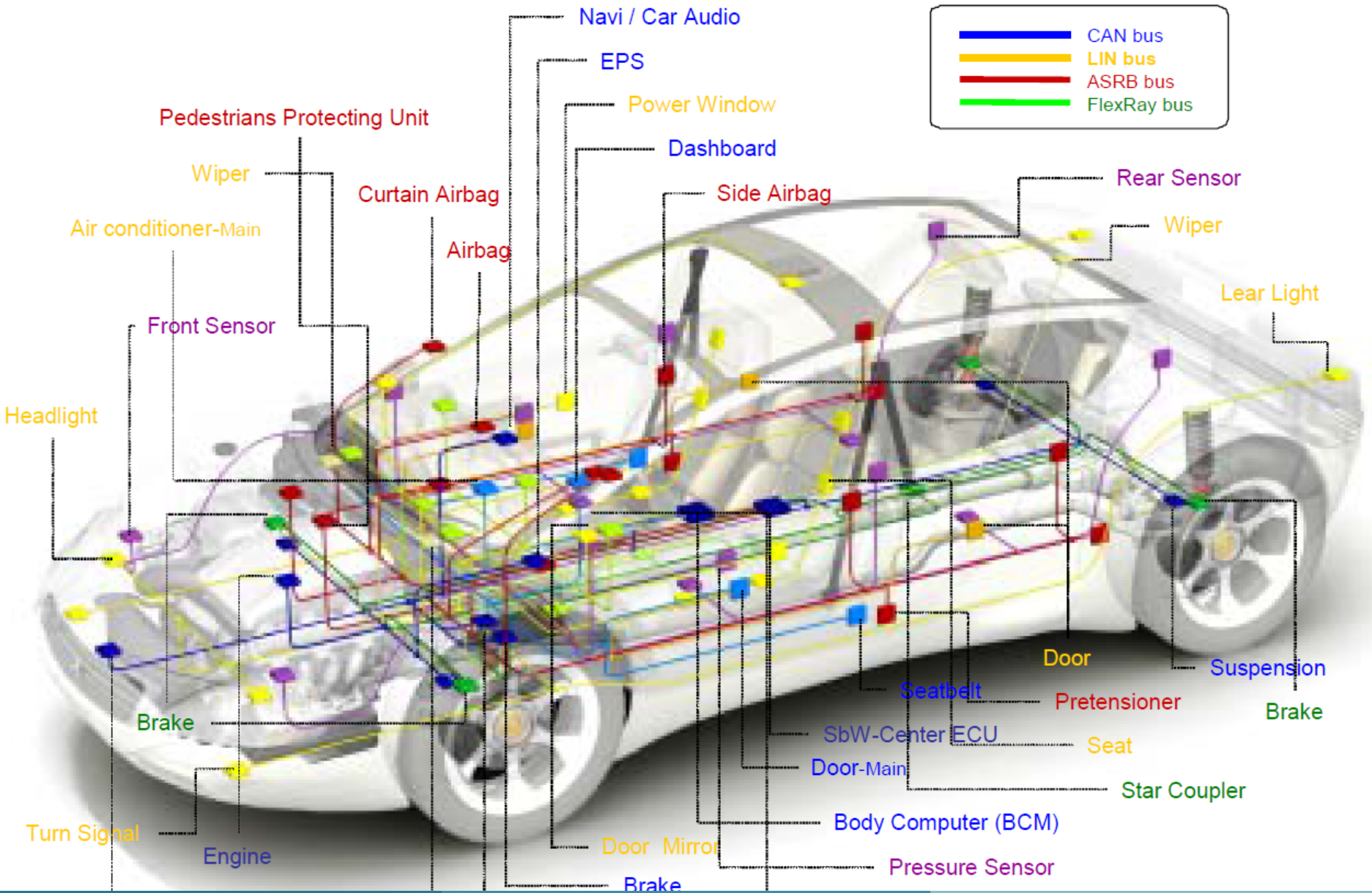
## examples

- More than 86 billion ARM®-based chips shipped to date.
- Microchip – PIC and AVR (ATmega in Arduino)

# Modern Network of systems



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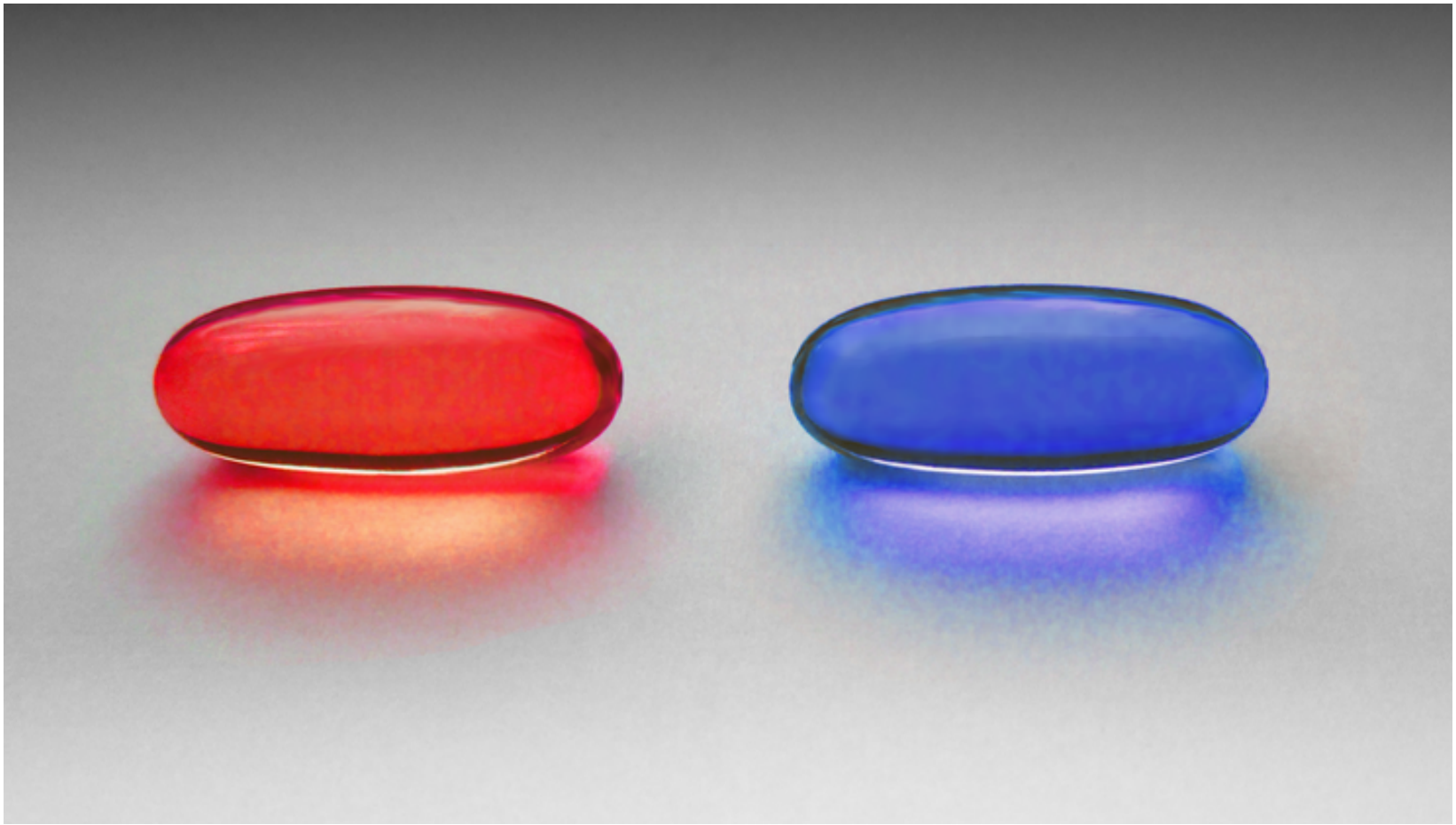

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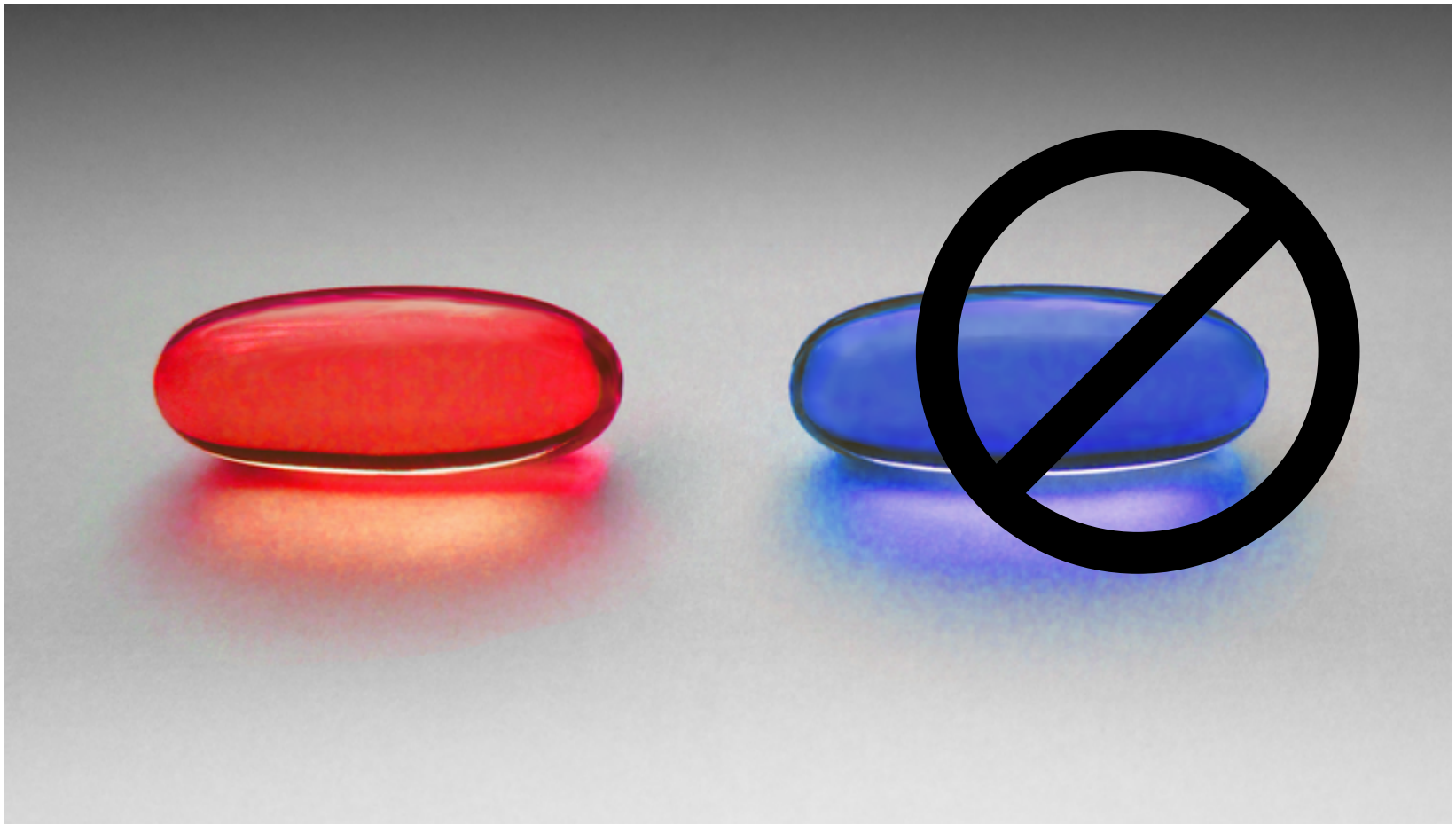

*You take the red pill – you stay in Wonderland, and I show you how deep the rabbit hole goes.*

*Morpheus, The Matrix*