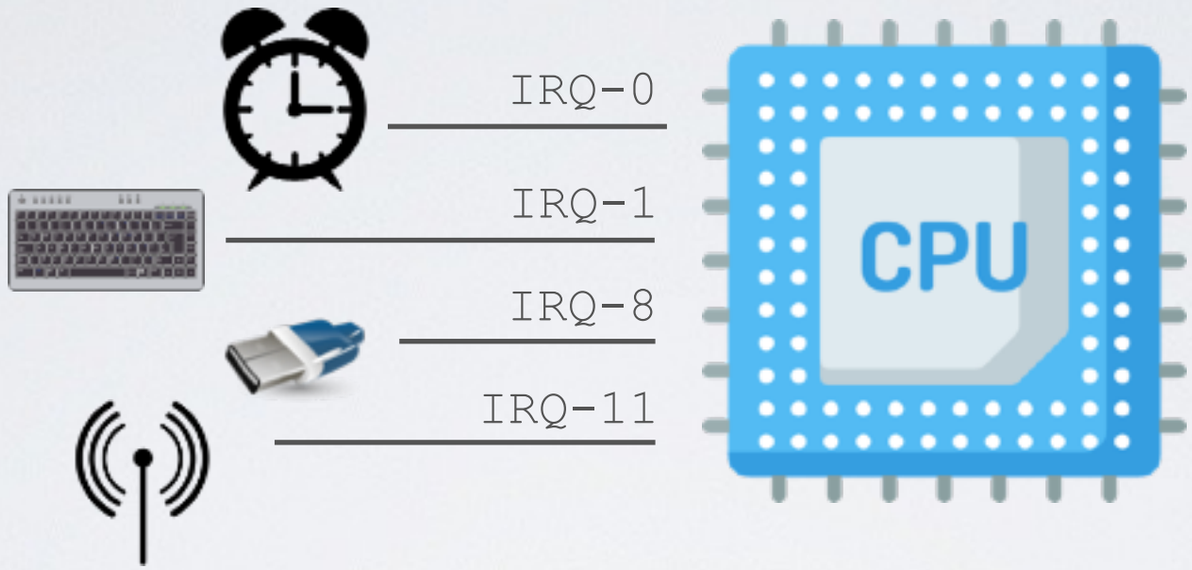
Two kinds of interrupts

External Interrupts a.k.a hardware interrupts
caused by an I/O device that needs some attention (asynchronous)

Internal Interrupts a.k.a system calls, exceptions and faults caused by executing instructions (synchronous)

- fault
  e.g divide by zero
  e.g page fault (coming later with memory management)
- trap - x86 `int` instruction (intended by the programmer)
  e.g `int $0x80` for Linux system call trap
  e.g `int $0x30` for Pintos system call trap

External Interrupt - the naive implementation



➡ I/O devices are wired to **Interrupt Request lines** (IRQs)

- Not flexible (hardwired)
- CPU might get interrupted all the time
- How to handle interrupt priority