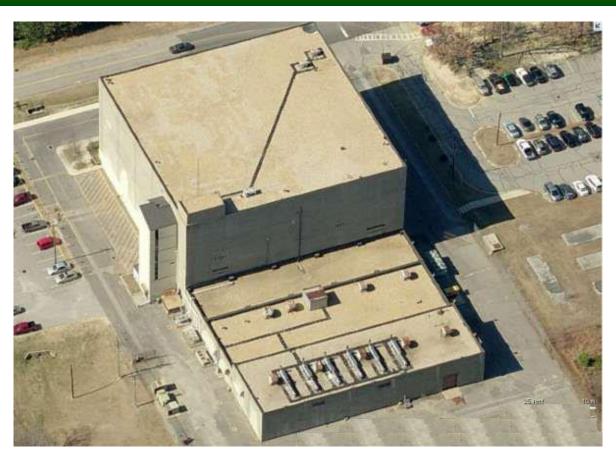
# Historia de las Computadoras

## Computadoras de Tubos al vacío



SAGE Blockhouse / Computer: 10,170m<sup>2</sup>, 250 tons, aloja más de 200,000 tubos al vacío @ 3,000,000 Watts



### Computadoras de Transistores

- Segunda Generación
- De 1956
- Casi una
  Habitación





The Harwell Dekatron Computer under restoration at the British National Museum of Computing

### Invención de ICs

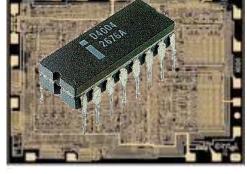
Tercera Generación



IBM 360 made by ICs (1964)

## Primer Microprocesador / Microcontrolador

- TI TMS1000
- 4004 (Intel)
- 6800 (Motorola)



Intel 4004 (1971) www.computerhistory.org

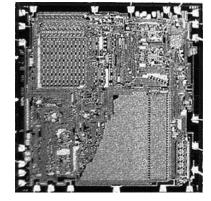


TI TMS1000 (1971-1974) http://www.antiquetech.com/



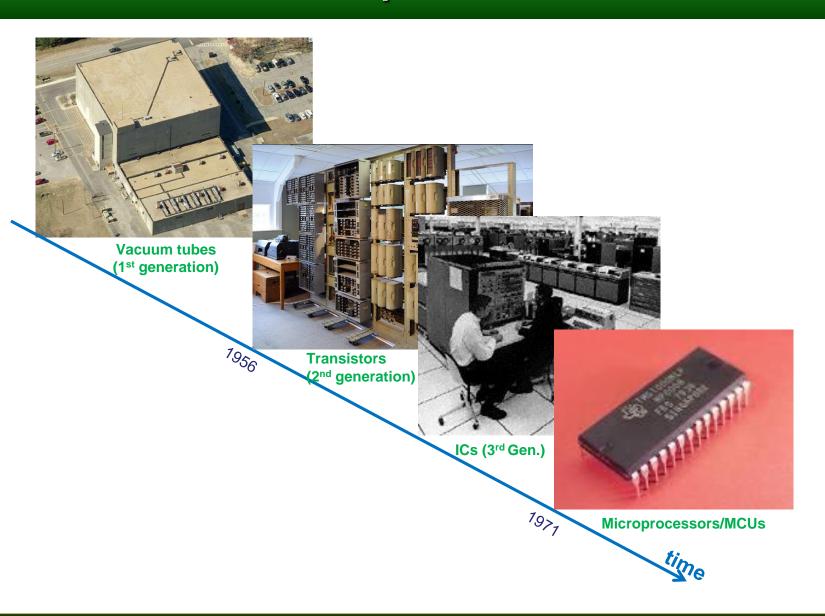
Motorola MC6800 (1974)

http://en.wikipedia.org/wiki/Motorola\_6800



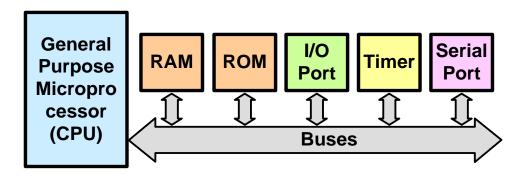
PICO1 (1971) http://en.wikipedia.org/wiki/Microprocessor

# ¡Ahora!

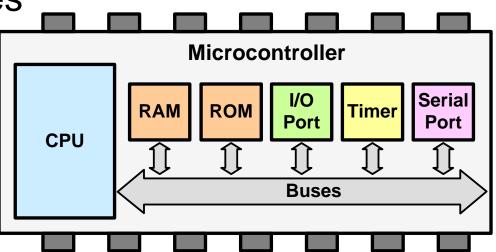


#### Microprocesadores vs. Microcontroladores

Microprocesadores de propósito general



Microcontroladores



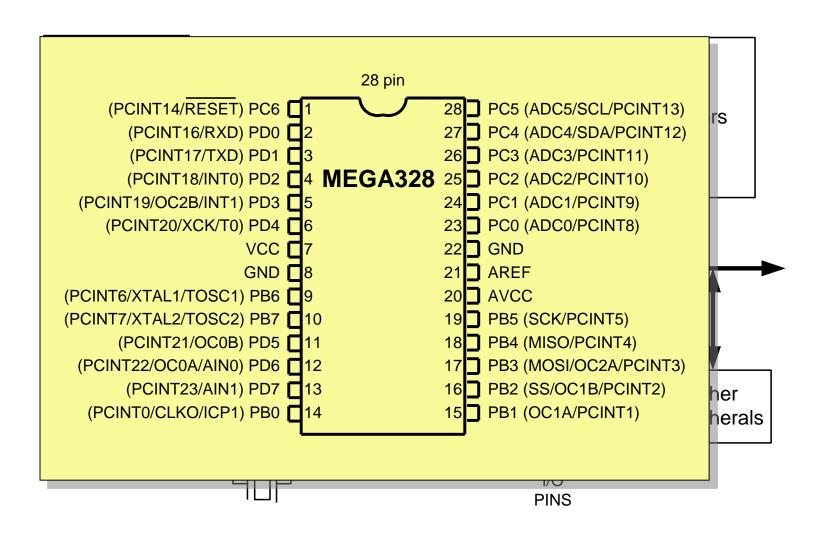
## Algunos microcontroladores

- 8-bit microcontrollers
  - AVR
  - PIC
  - HCS12
  - -8051
- 32-bit microcontrollers
  - ARM
  - AVR32
  - PIC32
  - CodeFire
  - PowerPC

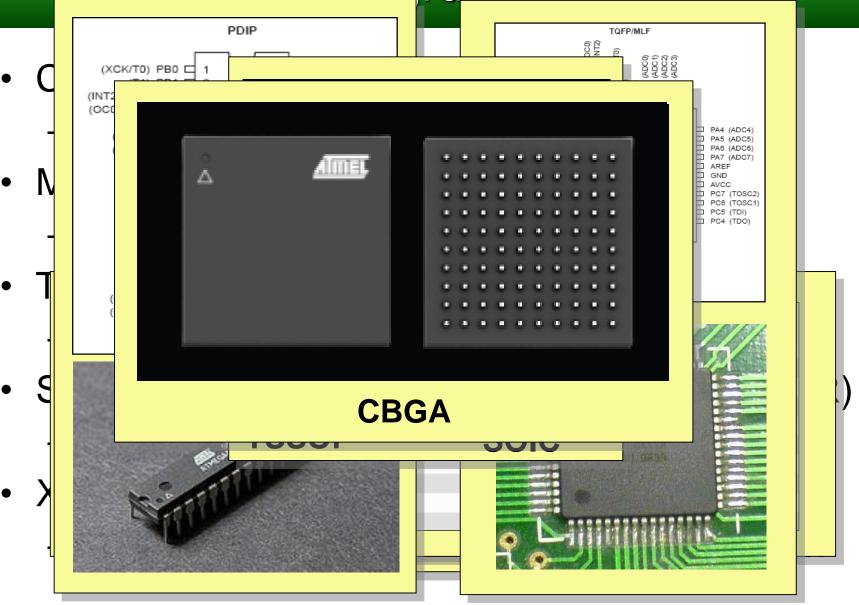




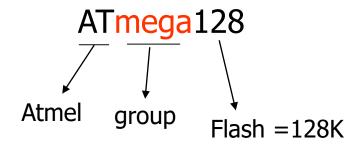
## Arquitectura Interna AVR

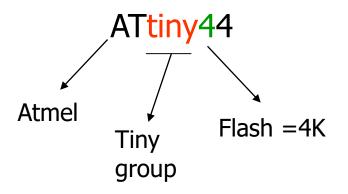


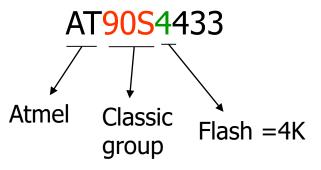
Distintos grupos AVR



## Números de partes AVR







#### Referencias

- www.williamson-labs.com/480\_cpu.htm
- www.computerhistory.org
- http://www.antiquetech.com/
- http://en.wikipedia.org/
- http://microchip.com