

# Historia de las Computadoras

## Capítulo 1

# 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**

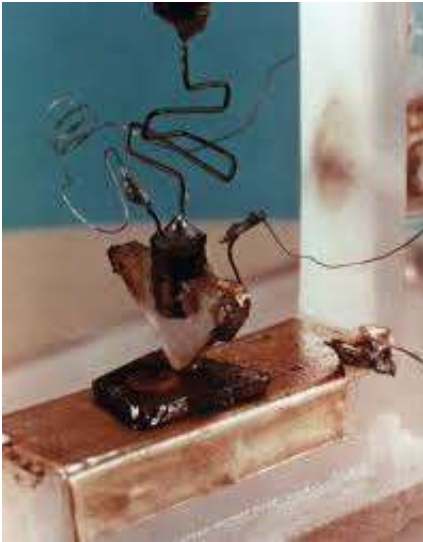


[www.williamson-labs.com/480\\_cpu.htm](http://www.williamson-labs.com/480_cpu.htm)



# 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)



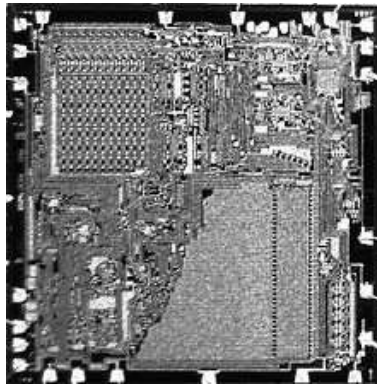
# Primer Microprocesador / Microcontrolador

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



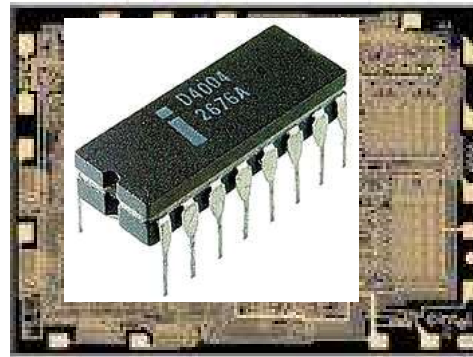
Motorola MC6800  
(1974)

[http://en.wikipedia.org/wiki/Motorola\\_6800](http://en.wikipedia.org/wiki/Motorola_6800)



PICO1 (1971)

<http://en.wikipedia.org/wiki/Microprocessor>



Intel 4004 (1971)

[www.computerhistory.org](http://www.computerhistory.org)



TI TMS1000  
(1971-1974)

<http://www.antiquetech.com/>

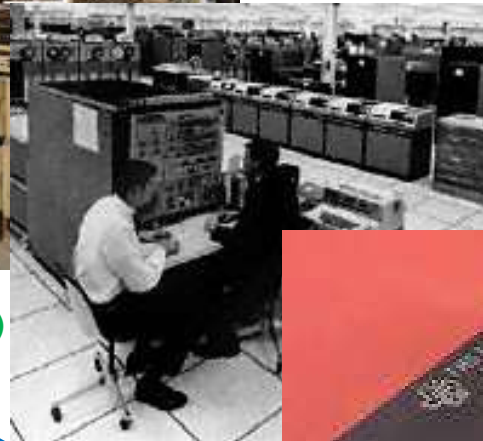
# ¡Ahora!



Vacuum tubes  
(1<sup>st</sup> generation)



Transistors  
(2<sup>nd</sup> generation)



ICs (3<sup>rd</sup> Gen.)



Microprocessors/MCUs

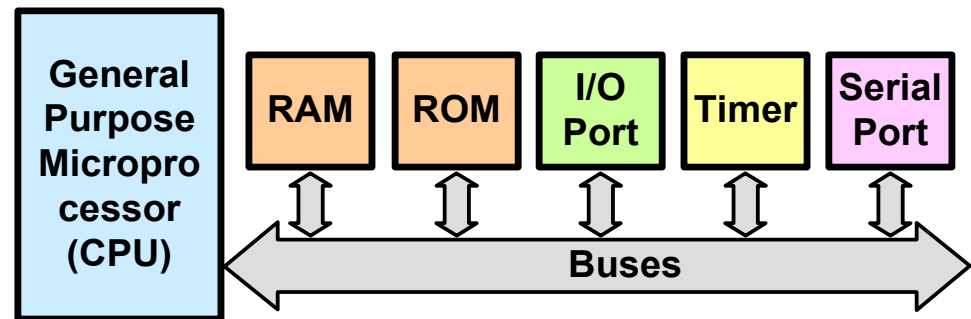
1956

1971

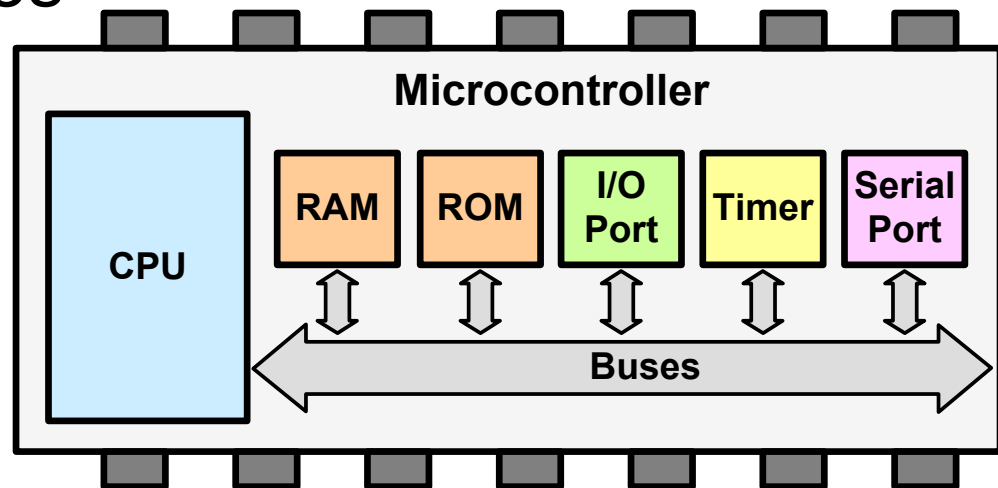
time

# Microprocesadores vs. Microcontroladores

- Microprocesadores de propósito general



- Microcontroladores



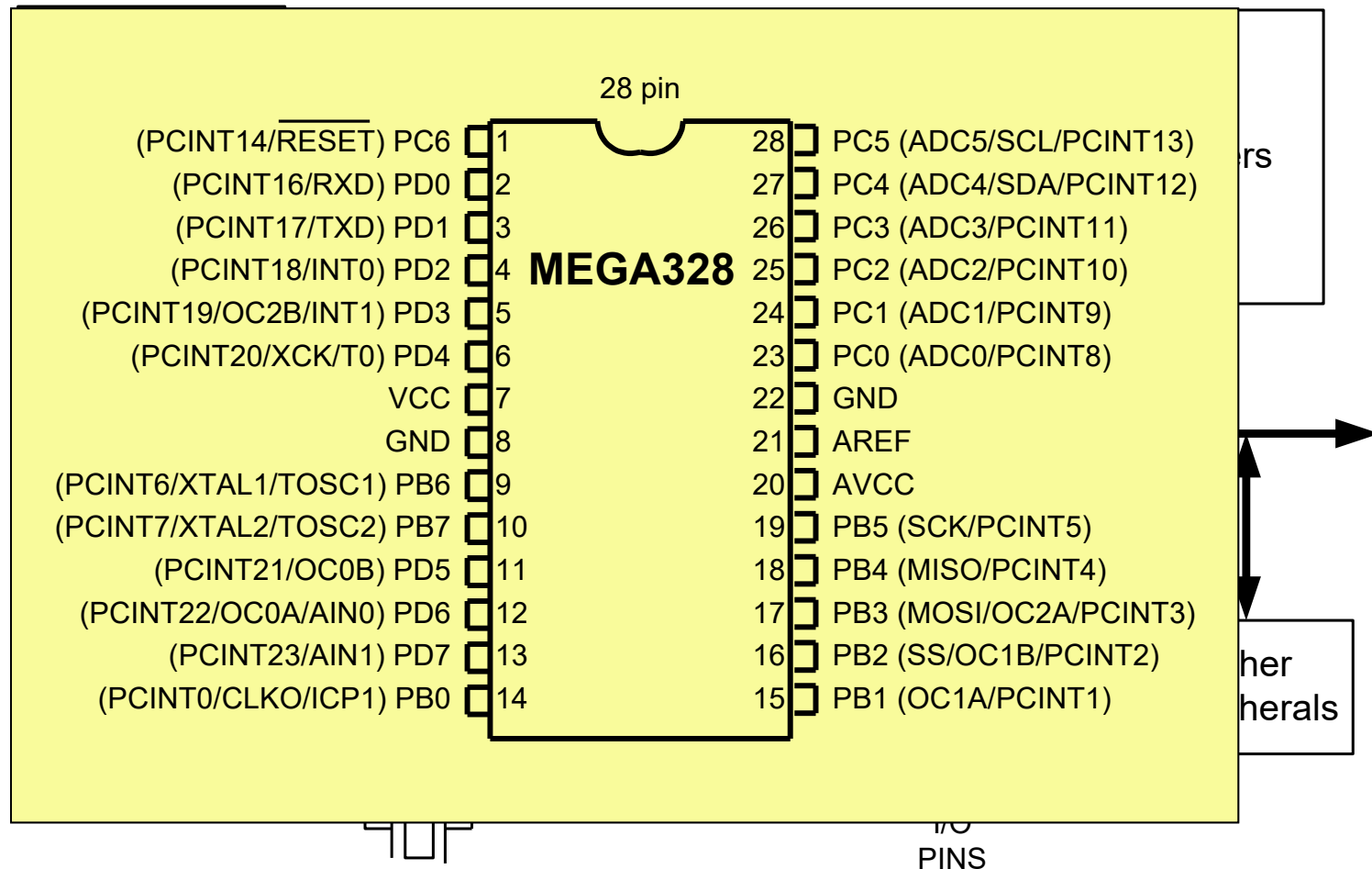
# Algunos microcontroladores

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



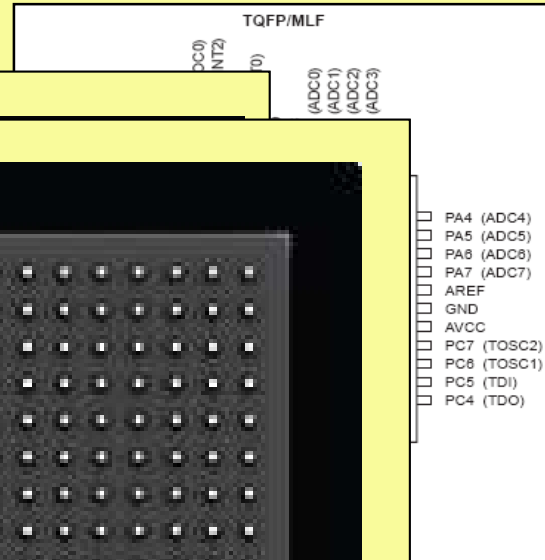
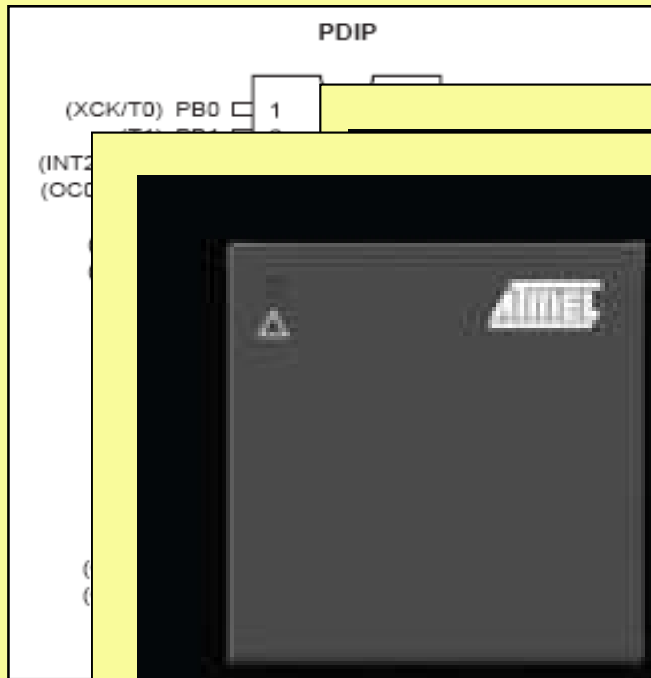


# Arquitectura Interna AVR

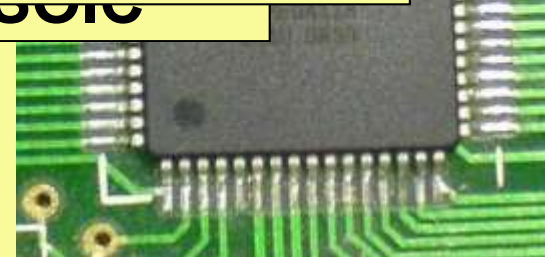


# Distintos grupos AVR

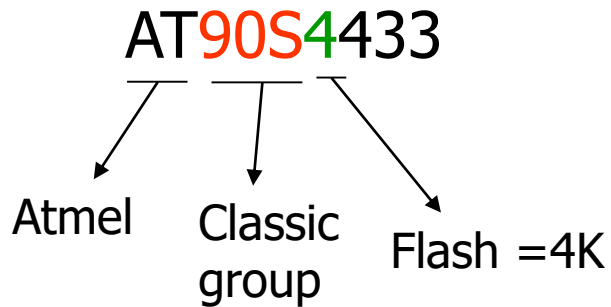
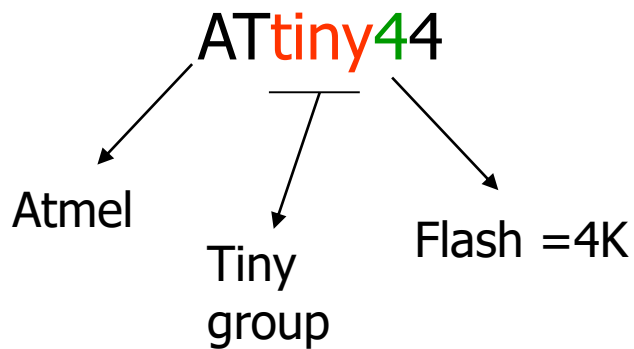
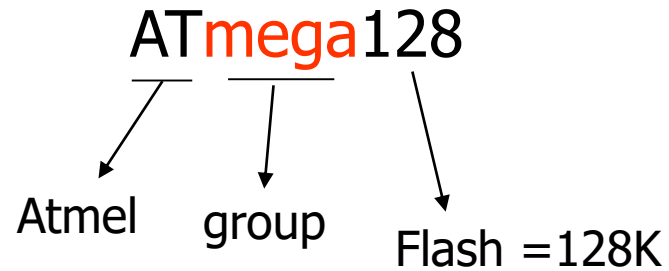
- C
- M
- T
- S
- X



**CBGA**



# Números de partes AVR



# Referencias

- [www.williamson-labs.com/480\\_cpu.htm](http://www.williamson-labs.com/480_cpu.htm)
- [www.computerhistory.org](http://www.computerhistory.org)
- <http://www.antiquetech.com/>
- <http://en.wikipedia.org/>
- <http://microchip.com>