

## UNIT 3.HARDWARE COMPONENTS

### Activities

Computer Systems  
CFGS DAW

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## Nomenclatura

A lo largo de este tema se utilizarán distintos símbolos para distinguir elementos importantes dentro del contenido. Estos símbolos son:

🔔 Actividad opcional. Normalmente hace referencia a un contenido que se ha comentado en la documentación por encima o que no se ha hecho, pero es interesante que le alumno investigue y practique. Son tipos de actividades que no entran para examen

👁 Atención. Hace referencia a un tipo de actividad donde los alumnos suelen cometer equivocaciones.

## UD03. HARDWARE COMPONENTS

### Internal components. Activities

- (1)** What is the function of the battery that is in the motherboard? What happens when it runs out?
- (2)** In the documentation we have talked about some internal connectors, but there are others which has not been explained. For example, some MoBo have a WOL connector. Can you describe it and indicate what is its function?
- (3)** Regarding the previous question, there are still other internal connectors, like ports I/O: IDE, FDD, SATA, USB, FireWire. Find out about them showing their shape (photo), as silk-screened on the MoBo, which connect, which speeds support ...
- (4)** What is the difference between suspend and hibernate a computer? And between warm start and cold start? What is APM? And ACPI? What permit? Discuss it in forum.
- (5)** When a transmission is in parallel and when it is in serial mode? Define it. Share your opinion about what is faster in forum.
- (6)** Find one MoBo for Intel processors and one for AMD processors? Which chipset incorporates? Which features have each of them?.
- (7)** For each of the MoBo chosen in activity 6. What memory distribution would you do? What kind of memory? Could you put ECC modules? How much it would cost (€)?
- (8)** 👁 For each of the MoBo you have chosen in the activity 6, indicate where are located the processor, northbridge, southbridge and BIOS.
- (9)** 👁 Answer the following questions:
1. Physical definition of processor, functions.
  2. How does a dual-core architecture work?
  3. Difference between multi core and multiprocessor system.
  4. Which are the elements of a dual core CPU? Make a diagram
- (10)** Analyze different ways of cooling that a processor can have. What is the sink? Why it has that shape? Can the fan change its frequency to cool more? How it detects that it has to turn faster?
- (11)** Download the Everest, AIDA or similar application and use it to analyze your computer. Make a table in which all the elements studied so far appear and share them in forum.
- (12)** 🛠 Research and discuss your conclusions on the following topic: Monitoring the systems motherboard and equipment management.

**(13)** 🗑️ Knowing a little bit of history is a good idea to place us in a context. Make a chronology of microprocessors for PCs, starting with the 8088. What is Moore's Law?

**(14)** 🗑️ Take a look at the Gigabyte website, <https://www.gigabyte.com/uk/Motherboard>, and choose two motherboards. Try to identify components, connectors, etc. which have been explained in Unit 3. Post your findings in the Unit 3 Forum.