



# Computer Components

Learn what the external components of a computer are,  
how they work, and how to use them.



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## The Monitor, Keyboard and Mouse

### **The monitor:**

The display is the most used output device on a computer. The display provides instant feedback by showing you text and graphic images as you work on a computer. It does not have any memory; it is just a screen which shows everything a computer is doing following your actions.

Resolution refers to the number of individual dots of colour, known as pixels, contained on a display. Resolution is expressed by identifying the number of pixels on the horizontal axis (rows) and the number on the vertical axis (columns), such as 800x600.

The standard size of that kind of screen is of 15 or 17 inches and the standard resolution is of 800x600. However, that kind of screen is no longer produced.



That new kind of screen has a higher resolution normally between 1024x768 and 1920x1080.



### **The keyboard:**

A keyboard's primary function is to act as an input device, in other words to send information from the user to the computer. Using a keyboard, a person can type a document, use keystroke shortcuts, access menus and perform a variety of other tasks.



## The mouse:

The mouse is an input device whose main goal is to translate the motion of your hand into signals that the computer can use. Each time when you use a computer, you reach out for your mouse whenever you want to move your cursor or activate something. Your mouse senses your motion and your clicks and sends them to the computer so it can respond appropriately. The pointer of the mouse on a computer desktop is like the extension of your finger. The majority of the mice have two buttons and the most used is the left button; the right button is used more for shortcut actions or option menus and is very handy for more advanced users. A “recent” innovation in mouse scrolling is a scroll wheel that allows you to scroll onscreen vertically (up/down). The ability to scroll is handy when you are viewing large documents like a Web page or reading a text document.



Classic mouse with two buttons



Modern mouse with two buttons and a scroll wheel between the buttons.

## The Printer and Scanner

### The printer:

The printer allows us to edit our documents or images from a text file to paper. There are two main categories : inkjet printer (that places extremely small droplets of ink onto paper) and laser printer (a laser inside the printer which moves quickly and prints more precisely; it is more efficient and widely used in large offices)



## The scanner:

The basic principle of a scanner is to analyse an image and process it in some way. Image and text capture allows you to save information to a file on your computer. You can then modify or enhance the image, print it out or use it on your Web page. In other words, if you have a film photo and you want to have it on your computer too in a soft copy, all you need to do is to scan it and save it on your computer.



## The Modem, Speakers and Hard Drive

### The modem

A modem is an input/output device which allows you to have an Internet connection; the signals are sent either from your computer to the Internet provider's computer (or terminal) or from the Internet provider to your computer.

The diagram in the right shows how the modem is working :



### The speakers

The speakers are an output sound device which allows the users to listen to music or to the other types of sounds played in the computer. Note that, in order to be able to listen to something the computer must have an internal sound card as well, either incorporated into the motherboard or installed separately.



## The hard drive:

The hard drive is the biggest storage device inside the computer. The operating system (e.g. Windows), the applications used daily (e.g. Word, Excel, Internet Explorer) and the files and folders created are actually stored on the hard drive. Each hard drive has a very large but limited capacity, therefore some cleaning is necessary from time to time (e.g. uninstalling applications or deleting the files not used anymore). Moreover, the hard drive is considered as the permanent memory of the computer, in other words once a file is saved for an example that file will still exist even after the computer will be turned off.



## The Floppy Disk Drive, CD-ROM and Central Unit

### The floppy disk drive (FDD):

The floppy disk drive (FDD) was the primary means of adding data to a computer until the CD-ROM drive became popular. It is an external device of small capacities on which we can store files like text files, images, audio files, and so on.

Basically, a floppy disk drive reads and writes data to a small, circular piece of metal-coated plastic similar to audio cassette tape.



### USB Key:

The floppy disk drive (FDD) tends to disappear since the creation of the USB key. The USB key works exactly the same way than the floppy disk drive. The main difference is that the USB key is an external device of bigger capacities than the FDD. We can then store more files like text files, images, audio files, and so on.

Note that the floppy disk reader tends to disappear and that many computers no longer come with the floppy disk reader.



## The CD-ROM:

Another external storage device is the CD-ROM; it has a bigger storage capacity than the « old » floppy disk and the stored information could be read faster. The unit which reads a CD is called a CD Drive and the reading process is done with laser technology. Nowadays, all the applications or programs are on CDs since a floppy has a much smaller capacity.

C.D. R.O.M. means Compact Disk Read Only Memory, in other words only reading operations can be done, not the writing ones. But, with the evolution of the technology, there are also CDs on which we can write (or burn the CD), sometimes called CD-RW (read-write).



## The central unit

The central unit is actually what we call the computer. All the operations are done inside this central unit and it keeps all the internal components of a computer.



## **Glossary**

***Input device:*** Receives the information from the user and sends it to the computer.

***Motherboard:*** It is the central component inside a computer on which we find other important components such as the processor (which does all the operations and which could be also called the « brain » of a computer), the sound card (which transmits the sound to the speakers), the video card (which transmits the graphical image to the monitor, etc). It looks like a rectangular-shaped thin board with electronic components on it.

***Output device:*** Receives the information from inside the computer and sends it or visually shows it to the user.

***Pixel:*** Each dot of colour from a computer screen.

### **References:**

*computer.howstuffworks.com*