

PRINTER

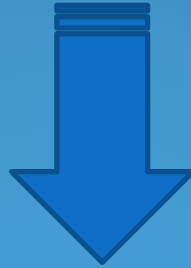


Printer is a device that prints text or illustrations on paper.

THERE ARE MANY DIFFERENT TYPES OF PRINTERS:



dot-matrix printer



ink-jet printer



laser printer



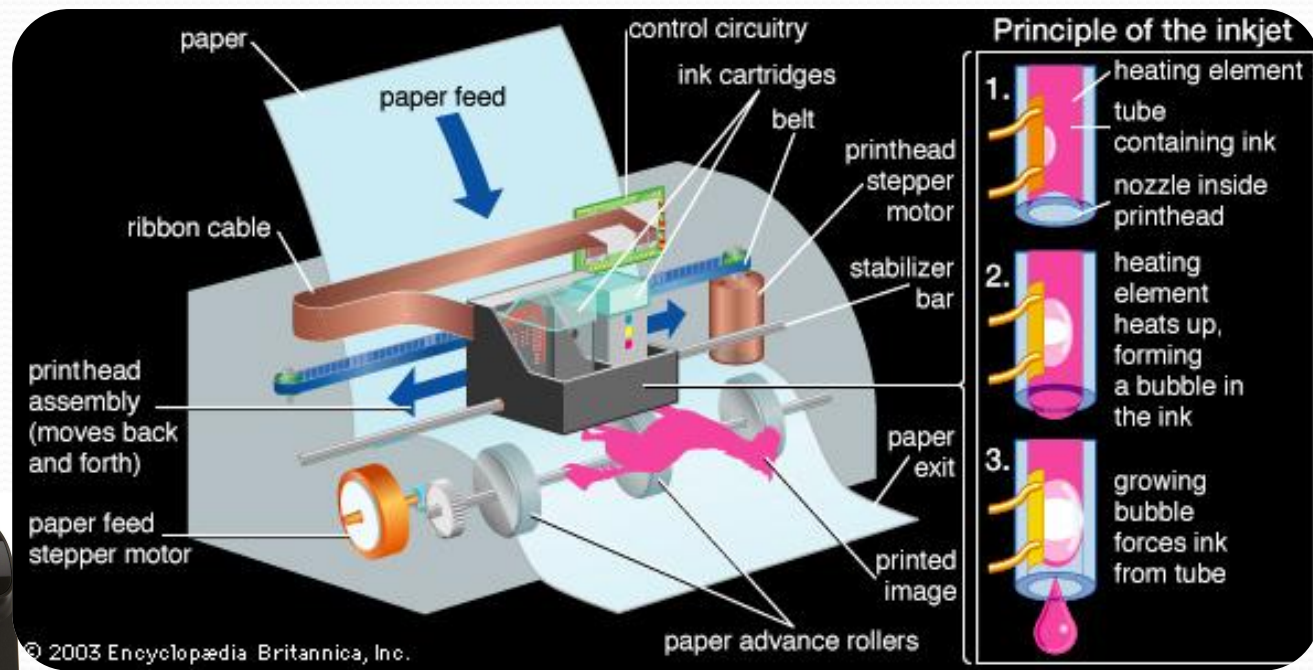
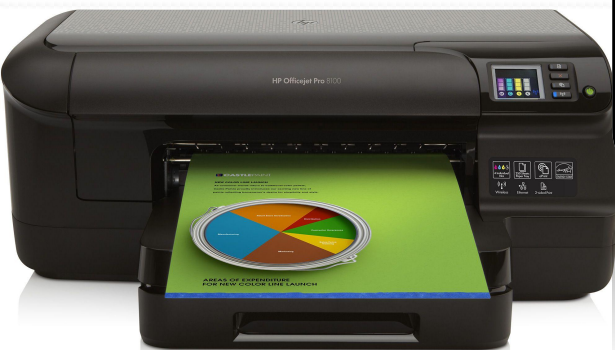
Dot-matrix printer

strikes pins against an ink ribbon. Each pin makes a dot, and combinations of dots form letters and illustrations.



Ink-jet printer

sprays ink at a sheet of paper. Ink-jet printers produce high-quality text and graphics.



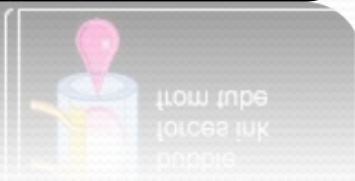
© 2003 Encyclopædia Britannica, Inc.

© 2003 Encyclopædia Britannica, Inc.

stepper motor
paper feed

paper advance rollers

image
bubble

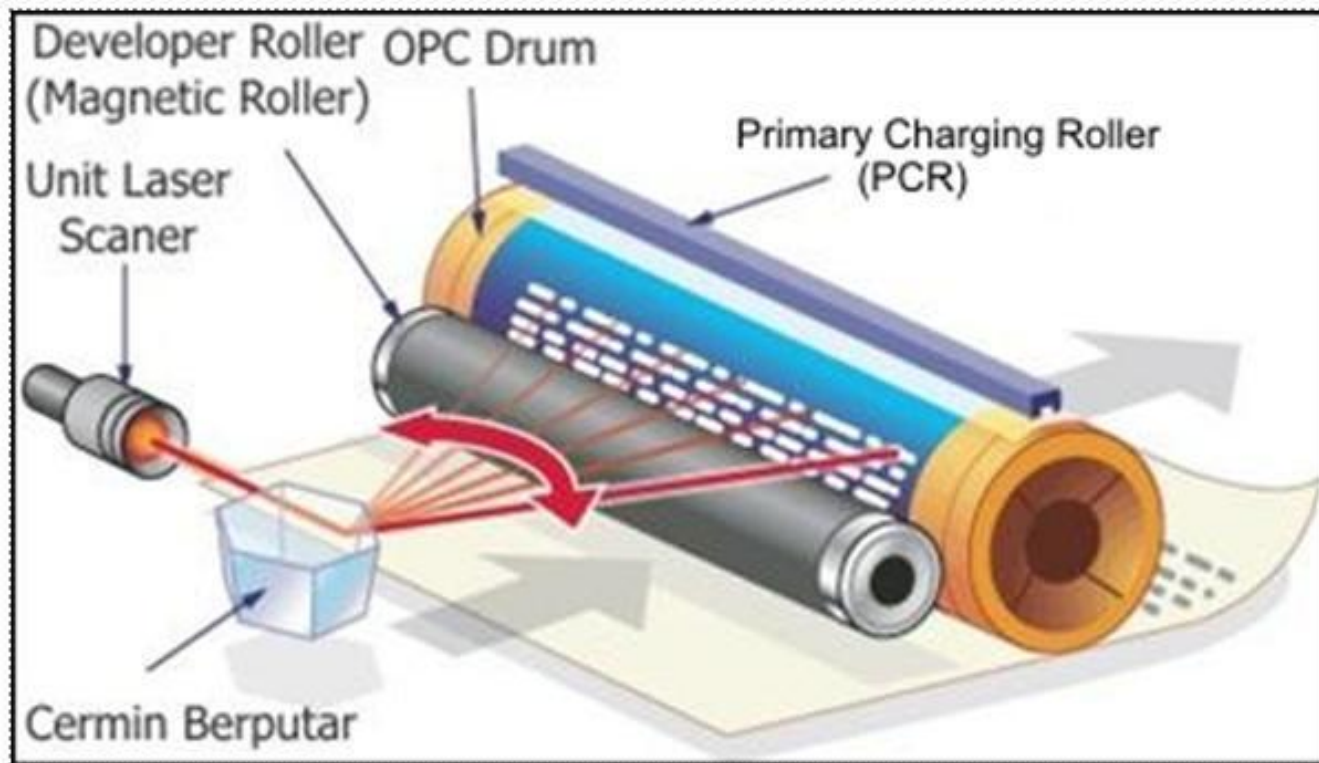


flow tube
forces ink
droplet

Laser printer



uses the same technology as copy machines. Laser printers produce very high quality text and graphics.



- The speed of printers varies widely. Dot-matrix printers can print about 4 to 20 text pages per minute.



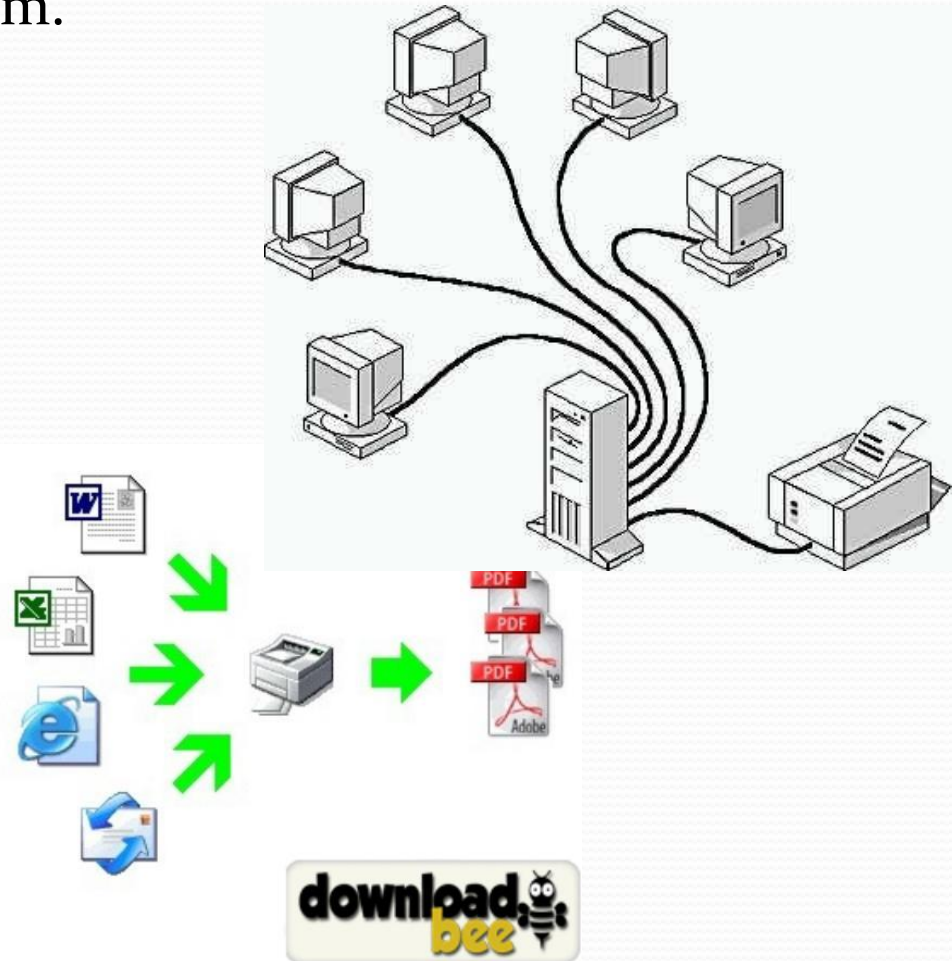
TYPES OF PRINTERS

❖ **Personal printers** are primarily designed to support individual users, and may be connected to only a single computer. These printers are designed for low-volume, short-turnaround print jobs, requiring minimal setup time to produce a hard copy of a given document. However, they are generally slow devices ranging from 6 to around 25 pages per minute (ppm), and the cost per page is relatively high. However, this is offset by the on-demand convenience. Some printers can print documents stored on memory cards or from digital cameras and scanners.



- ◆ **Networked or shared printers** are "designed for high-volume, high-speed printing." They are usually shared by many users on a network and can print at speeds of 45 to around 100 ppm.[3] The Xerox 9700 could achieve 120 ppm.

- ◆ **A virtual printer** is a piece of computer software whose user interface and API resembles that of a printer driver, but which is not connected with a physical computer printer.



- ❖ A **3D printer** is a device for making a three-dimensional object from a 3D model or other electronic data source through additive processes in which successive layers of material (including plastics, metals, food, cement, wood, and other materials) are laid down under computer control. It is called a printer by analogy with an inkjet printer which produces a two-dimensional document by a similar process of depositing a layer of ink on paper.



SCANNER



Scanner - device which, by analyzing an object, creates a digital copy of the image object.



- ❑ **Flatbed scanners** - the most common type of scanner because it provides maximum comfort for the user - high quality and affordable scanning speed. It is a tablet, inside of which is located under the transparent glass scanning engine.

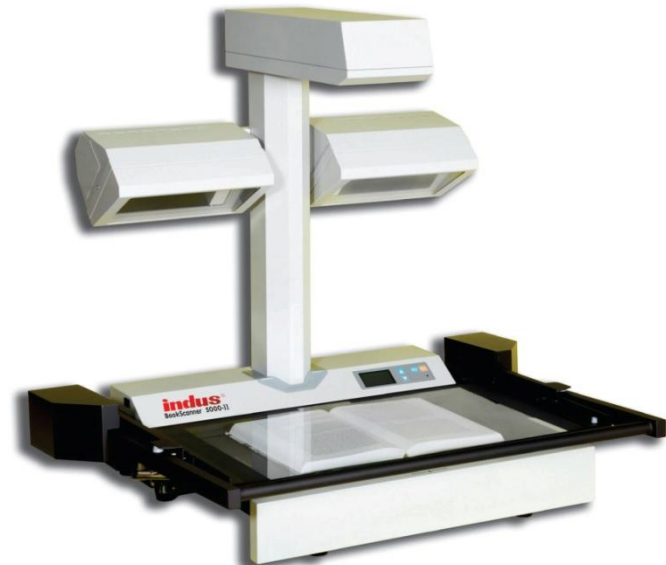


- ❑ **Hand-held scanners** - they lack the engine, therefore, the object has to scan the user manual, his only advantage is the low cost and mobility, while it has a lot of drawbacks - low resolution, low speed, narrow scanning strip (up to 10 cm.), possible distortions of the image, since the user will be difficult to move the scanner at a constant velocity.

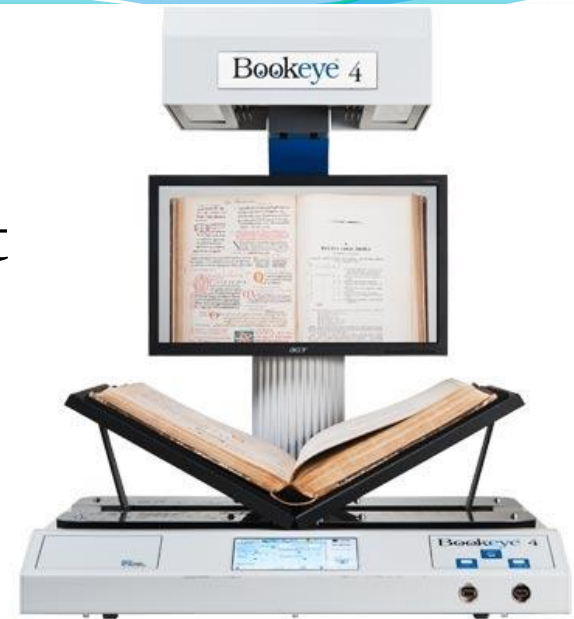
- ❑ **Listoprotiyazhnye** - paper is inserted into the slot and extends along the guide rollers inside the scanner by the lamp.



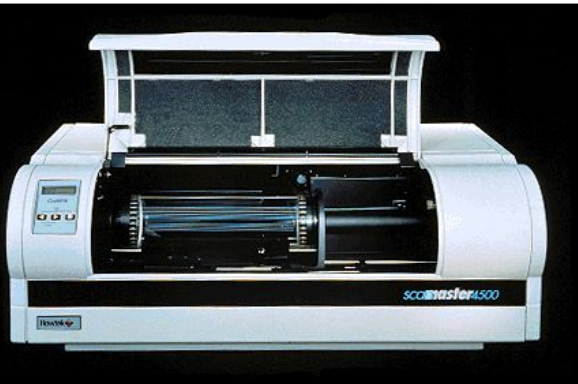
- ❑ **Book scanners** - used for scanning stitched documents.



❑ **Planetary scanners** - used for scanning books or documents are easily damaged. When scanning is no contact with the scanned object (as in flatbed scanners).



❑ **Drum scanners** - Drum scanners, for sensitivity, significantly exceeding consumer tablet devices are used exclusively in the printing industry, where a high-quality reproduction of professional photographs. Resolution of such scanners is usually 8000-11000 dpi or more.



❑ **barcode scanners** - small, compact models to scan product barcodes in stores.



❑ **3D-scanners** - devices that analyze the physical object, and using the obtained data, creating 3d model. They are used for engineering analysis, control, design, games and entertainment (creating digital character models), in medicine and other fields.

❑ **Ultrasound scanners (ultrasound scanners)** - used in medicine for the study of human internal organs

