

1. Types of Printers

Printers are broadly divided into **Impact** (physical striking) and **Non-Impact** (no striking) categories.

Non-Impact Printers (The Modern Standard)

- **Inkjet Printers:** Spray tiny droplets of liquid ink through nozzles onto paper.
 - **Best For:** High-quality photos and home use.
- **Laser Printers:** Use a laser beam to create an electrostatic image on a drum, which attracts dry powder (**toner**) that is then melted onto the paper.
 - **Best For:** Fast, high-volume office text documents.
- **Thermal Printers:** Use heat to darken special heat-sensitive paper (no ink needed).
 - **Best For:** Shopping receipts and shipping labels.
- **3D Printers:** Build physical 3D objects layer by layer using plastic or resin.

Impact Printers (The "Old School" Workhorses)

- **Dot-Matrix Printers:** Use a print head with tiny pins that strike an inked ribbon against paper.
 - **Unique Feature:** They can print "carbon copies" (multiple layers of paper at once).
 - **Best For:** Invoices and industrial environments.
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2. Types of Scanners

Scanners use light sensors to "read" an object and convert it into a digital image.

- **Flatbed Scanner:** The most common type. You place a document face-down on a glass surface, and a light bar moves underneath it.

- **Best For:** Books, fragile photos, and single documents.
- **Sheet-fed Scanner:** Works like a printer in reverse; you feed a stack of papers into a tray, and they are pulled past a stationary sensor.
 - **Best For:** Offices that need to digitize hundreds of pages quickly.
- **Handheld/Portable Scanner:** A small device you manually drag across a page.
 - **Best For:** On-the-go scanning of receipts or library books.
- **Drum Scanner:** Uses a rotating glass cylinder. This is the "Supercomputer" of scanners.
 - **Best For:** Extreme high-resolution professional photography and museum archiving.