

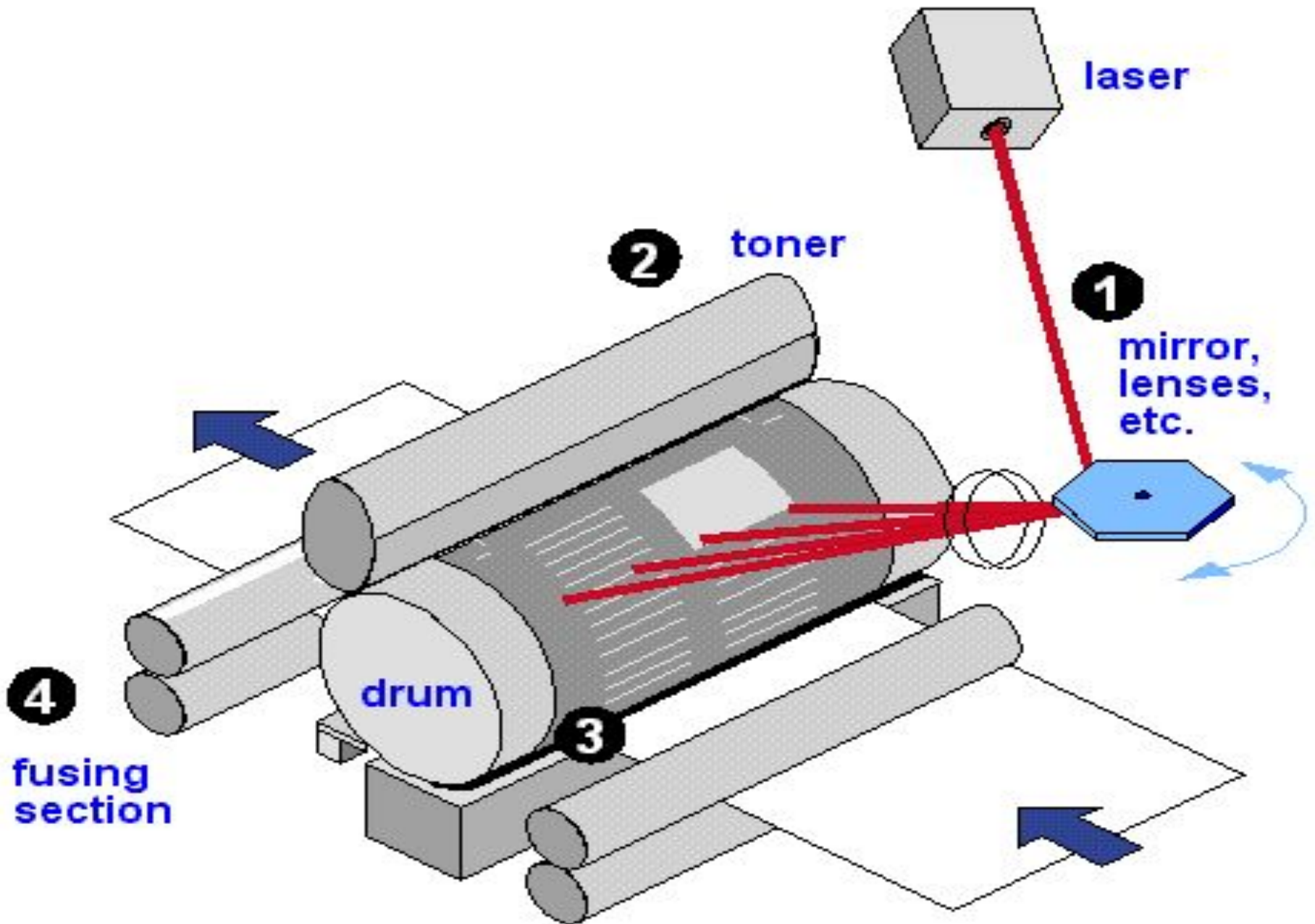
EPSON



IN COMPUTING, A PRINTER IS A PERIPHERAL WHICH  
MAKES A PERSISTENT HUMAN-READABLE  
REPRESENTATION OF GRAPHICS OR TEXT ON PAPER OR  
SIMILAR PHYSICAL MEDIA





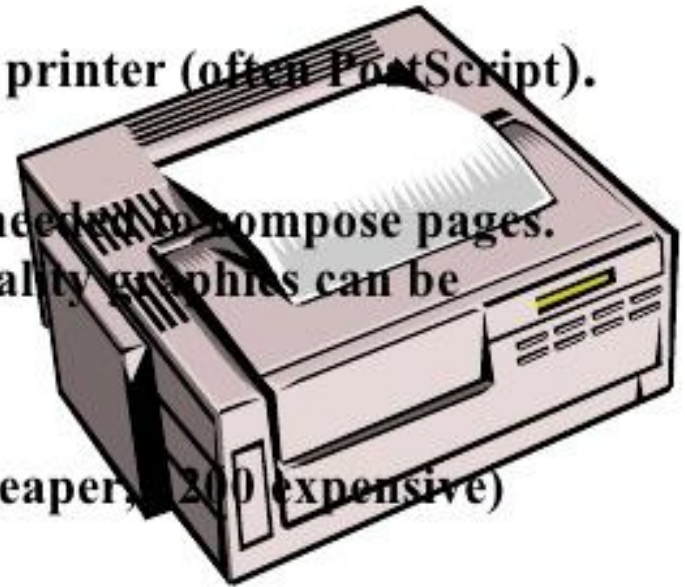




## 4.2 – Input & Output Devices

### 4.2.6 Printers – Laser Printer

- This type of printer uses lasers to "write" a page image onto a special drum as an electrostatic charge. The charged drum attracts toner particles which are transferred to the page and heated to set the image.
- Usually a page is composed in the printer (often PostScript).
- Capacity
  - On board RAM & processor needed to compose pages. The more RAM the higher quality graphics can be printed.
- Resolution
  - 600 dpi quite common (300 cheaper, 2400 expensive)
- Speed
  - The faster in pages per minute (ppm) the dearer ranges from 4 ppm to 20 ppm with 12 ppm being about average.



# Printers, Printer Types, Print Styles, and Printer Drivers

*Page Size/Orientation*  
e.g. - Landscape



*Operating System Name to identify a specific printer, e.g. - hqunx138*

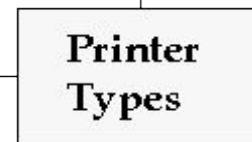


There can be many Printer Drivers that support a Print Style.

Many Printers can be the same Type (of printer).

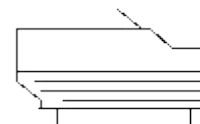
Assign a Printer Driver to support a unique Print Style for each Type of Printer you wish to use.

Each Printer can only be one Type (of printer).



*Printer Commands*  
e.g. - Reset

There can be many Printer Drivers that support a Printer Type.



*Make/Model*  
e.g. - LN03



# CamScanner



- Advanced image processing technology (Auto crop & Auto enhance image )
- Scan multi-page document
- Tag document
- Share document by email or SMS
- Upload to cloud storage (GoogleDocs, Box, Dropbox ...)





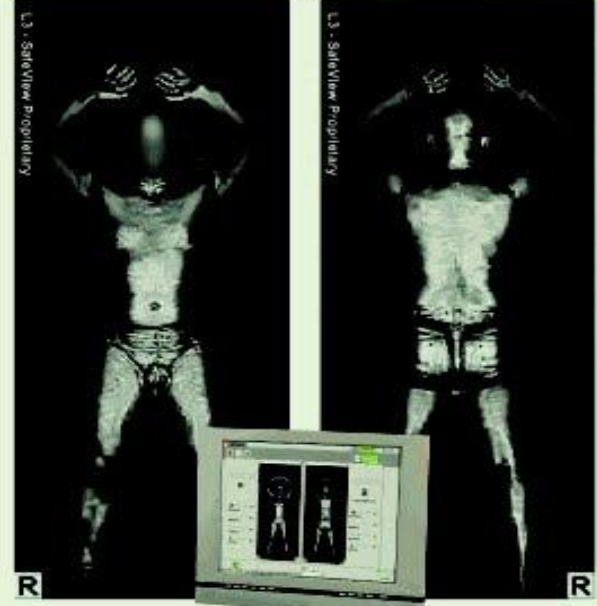


# What body scanners detect

New whole-body scanners being used at some US airports can see through clothing to reveal non-metallic objects such as plastic explosives.

## How scanners work

- Millimeter wave (MMW) technology uses radio waves
- Waves pass through clothing
- Computer uses reflected waves to create 3-D image of passenger
- Cost About \$170,000 each



For passenger privacy

- Facial features blurred
- Security officer views images at remote site

## Airports with scanners

Airports in 19 US cities use MMW scanners as voluntary option for screening



## Comparing detectors

	Max. passengers per hour	Detects
Metal detector	500	Metallic objects
MMW scanner	425	Metallic, non-metallic objects*

\*Includes liquids, rubber, wire, plastic, ceramic, metal