

Examine the uses of the Output devices: Braille printers, Impact, Inkjet, thermal, Wax, 3D Printers.



Identify Braille printers, Impact, Inkjet, thermal, Wax, 3D Printers

2. Explore features of these output devices

3. Explore how these output devices work in real life situations

Braille Printers

- A Braille printer is used to print braille document for the blind.
- Braille printers form raised dots that represent letters, numbers, and symbols in the Braille alphabet.





Features of Braille printers

- ➡ Braille printer prints using solenoids that controls the embossing pins.
 - ➡ Braille printers use heavyweight paper and more paper than what normal printing will need.
 - ➡ It relatively slower and a bit noisy
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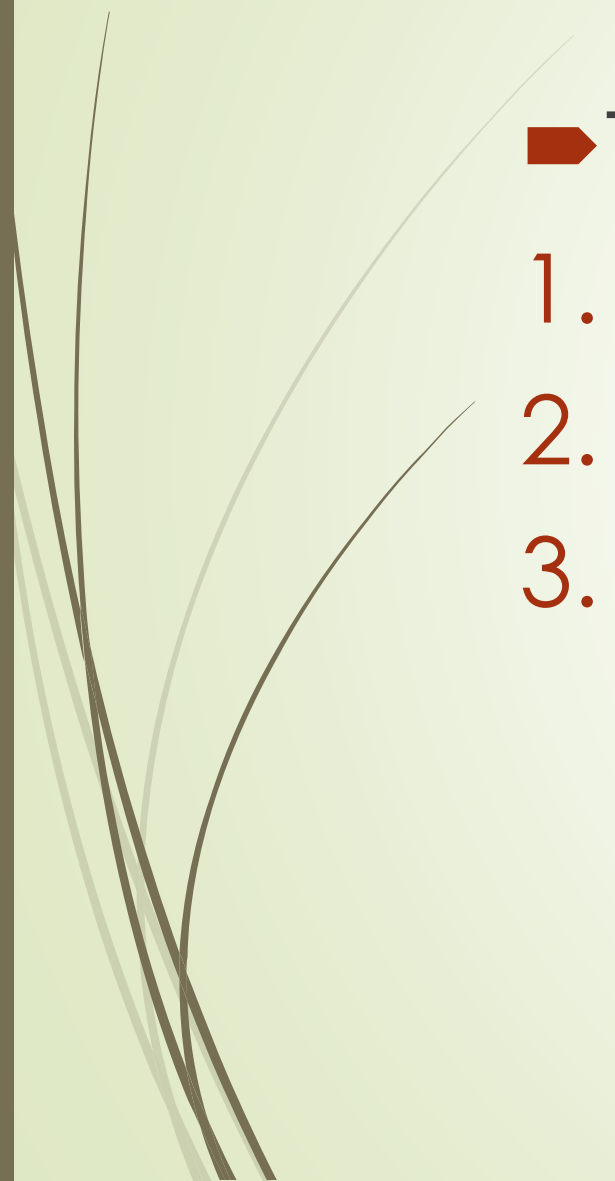


Impact and Non-impact Printers

- Printers are classified into two types depending on the type of print image created by hitting an ink ribbon on the paper.
- In this way, printers fall into two categories: Impact and Non-Impact



VARIETY OF IMPACT PRINTERS

- ➡ There are a variety of impact printers
 1. Dot matrix printer
 2. Daisy wheel printers
 3. Drum printer
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Dot matrix printer

EPSON



Daisy wheel printers



Drum printer





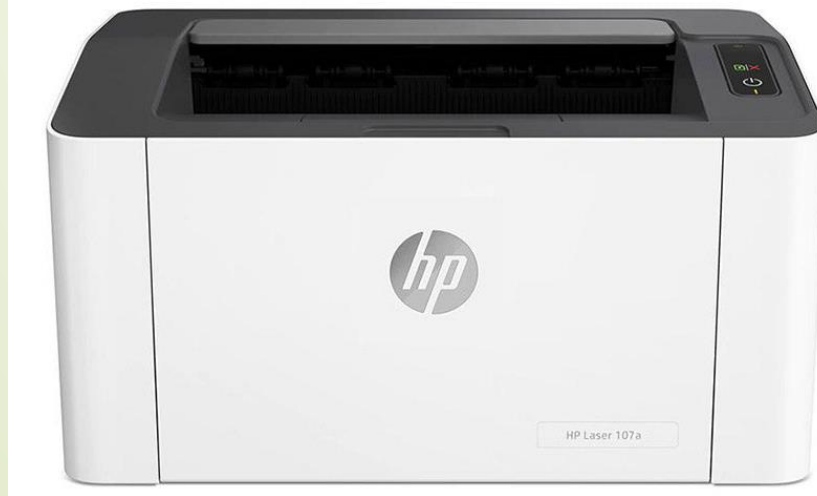
TYPES OF NON-IMPACT PRINTERS:

1. *Inkjet printer*
 2. Laser printer
 3. *Thermal printer*
 4. Dye sublimation printer
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Inkjet printer



Laser printer



Thermal printer



Dye sublimation printer





Differences Between Non-impact and Impact Printers

Impact Printers

1. Impact printers use continuous sheets of paper.

Non-impact Printers

1. Non-impact printers use individual sheets of paper.

Differences Between Non-impact and Impact Printers

Impact Printers

- 2. Impact printers are usually more affordable.
- 3. The impact printer is noisy.

Non-impact Printers

- 2. Non-impact printers are usually quite expensive.
- 3. Non-impact printers do not have a high volume of noise.

Differences Between Non-impact and Impact Printers

Impact Printers

4. Impact printers, other than dot matrix printers, do not print graphic images.
5. The print quality of an impact printer is lower.

Non-impact Printers

4. Printing graphical images using a non-impact printer is very feasible.
5. The non-impact printers have a higher print quality.



Differences Between Non-impact and Impact Printers

Impact Printers

5. The impact printer printing process uses only a pin, hammer or wheel that strikes an inked ribbon for printing on paper.

Non-impact Printers

5. The non-impact printer uses lasers, ink sprays, pressure and heat to print onto paper.

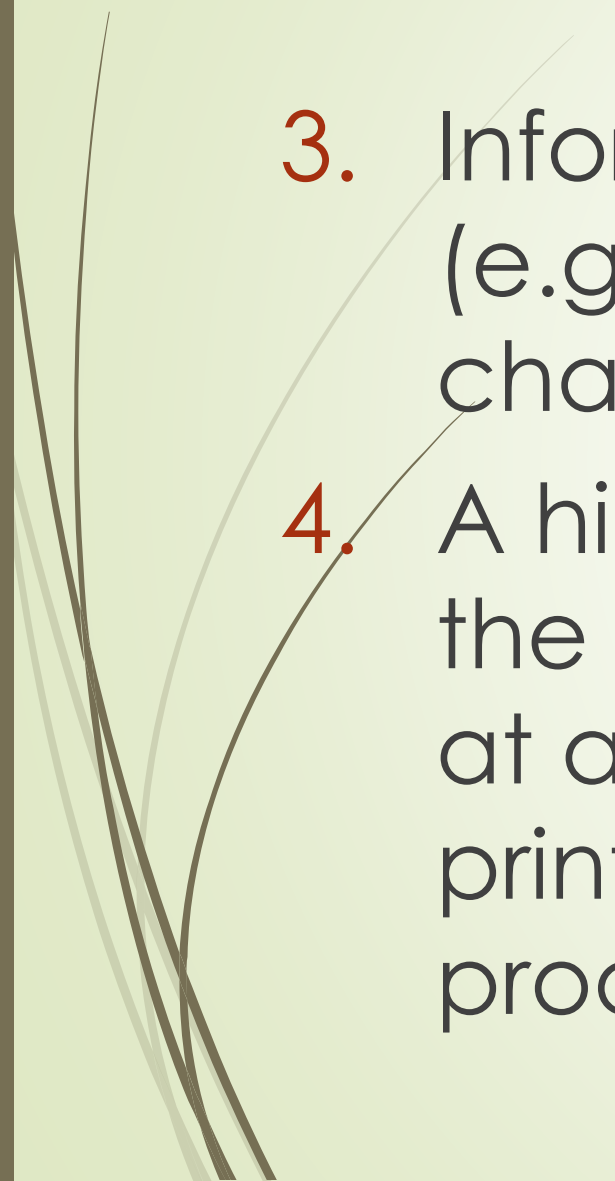
Features of inkjet Printers:

1. Non-contact printer:- This means that the printer does not touch the printed surface as only the ink droplets need to come into contact with it. As a result, inkjet printers are able to print on moving, uneven or sensitive surfaces.
2. They do not require paper. Since the ink is directly applied to the surface, there is no need to print labels and then apply them to the package.



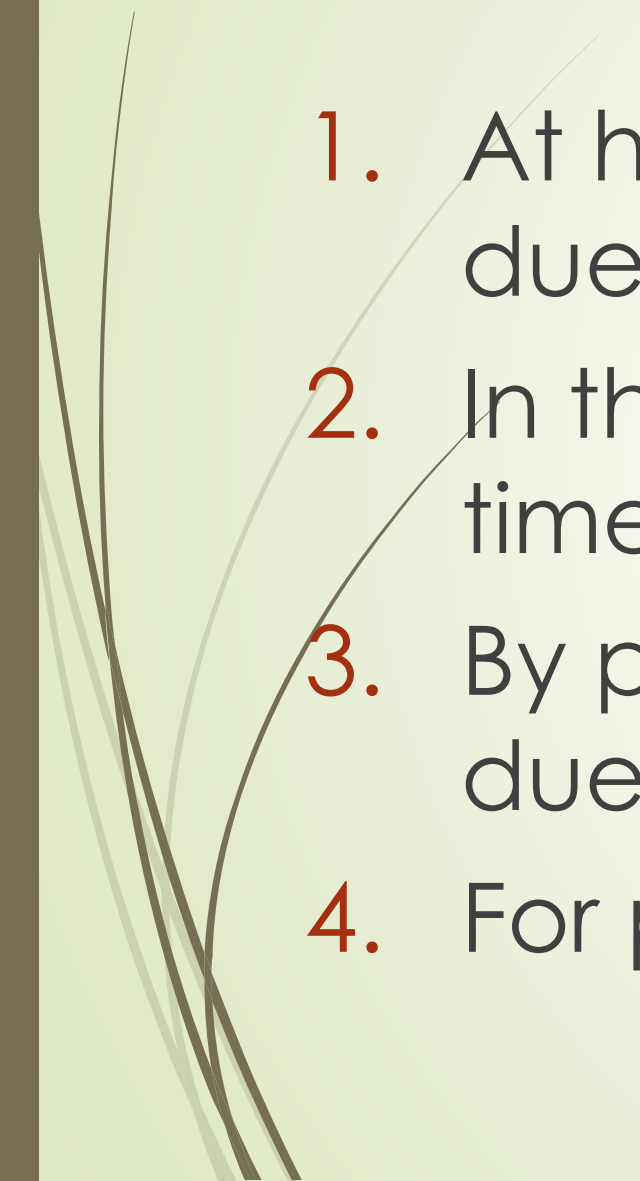


Features of inkjet Printers:

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3. Information can be rapidly modified. Texts (e.g. time, date, batch numbers) can be changed in real-time at the conveyor belt.
 4. A high-speed printing rate. Depending on the technique employed, products moving at a rate of up to 5 metres/second can be printed, which is sufficient for most production needs.



Common Uses of inkjet Printers:

1. At home and small offices to perform printer due to their high contract and speed
 2. In the banks and office which require long time running without hindrance.
 3. By photographers and graphic designers due to its high quality print out.
 4. For printing signs, billboards, T-shirts ,etc.
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Features of thermal Printers:

1. Thermal printers are fast printers.
2. Due to the high resolution of thermal printers, they can produce high quality images .
3. Thermal printers are strong and reliable.
4. Ease of Use
5. Most thermal printer are compatible with several POS Software as well as operating systems.





Common applications of thermal Printers:

1. For printing transport ticket at Bus terminals.
 2. For printing Lottery and Betting receipt
 3. For printing receipt and medical report at Health Care centers
 4. At Supermarkets and Grocery Stores for printing purchase receipt and invoices
 5. At Libraries for printing receipts
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Wax Printers



1. Capable of producing high-quality prints with vibrant colours and details.
2. Provides precise image and text reproduction.
Specialized Applications:
3. Commonly used in specialized industries like photography or graphic design for high-quality output.
4. These printers melt wax-based materials onto the paper, creating precise and detailed images or text, particularly suitable for high-quality output in graphic arts.



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Real-life Application Wax Printers

1. Commonly used in specialized printing applications like professional photo printing or high-quality graphic designs.
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3D Printers



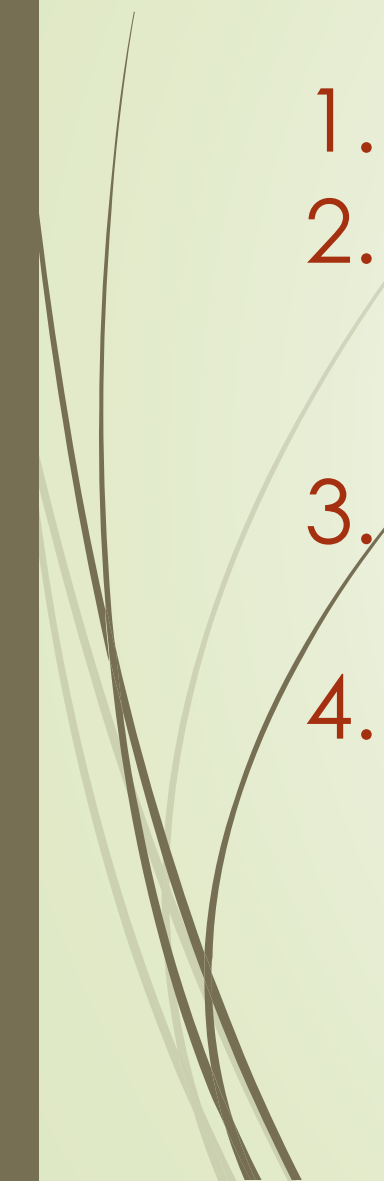


3D Printers

1. These printers create three-dimensional objects by depositing material layer by layer based on a digital model or design.
 2. They can use various materials such as plastics, metals, or even biological materials to create physical objects, providing a wide range of applications in various industries and fields.
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Features of 3D Printers

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1. Allows customization of designs and prototypes.
 2. Can print using various materials like plastics, metals, ceramics, and even food or biological materials.
 3. Ability to create intricate and complex three-dimensional shapes and objects.
 4. They create three-dimensional objects by depositing materials layer by layer based on a digital design, allowing for the production of custom and complex objects.

Real-life Application of 3D Printers

1. Used across various industries for prototyping, manufacturing parts, custom product designs, medical models,.etc.

