

Input Devices



Demonstrate understanding of the use of input devices (barcode, scanner etc.)

Watch video or picture of input devices in use.

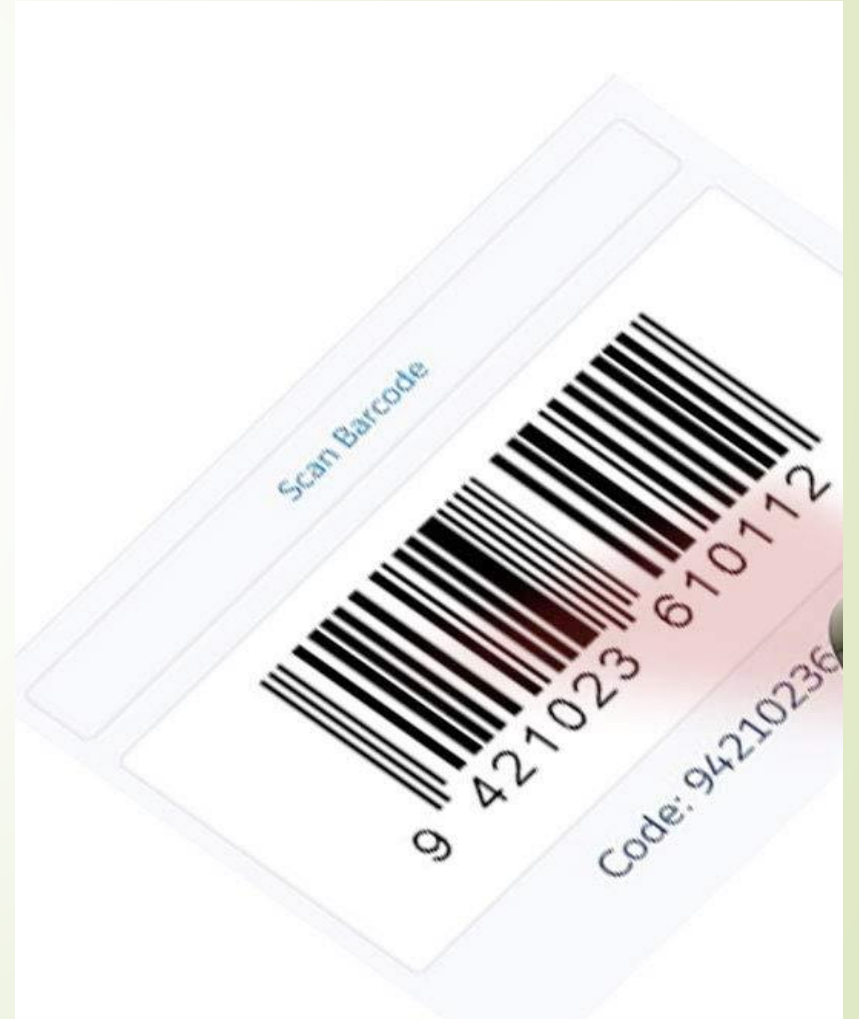


2. Demonstrate the use of input devices in a computer laboratory/classroom

3. Explore the advantages and disadvantages of input devices

What is a Barcode

- Barcode is predefined format of dark bars and white bars which is structured to contain specific piece of information.



Barcode reader

- A barcode reader is a device used to read and transfer store data from the barcode into a computer system





Features of Barcode Technology

1. Barcode technology consist of internal decoder and a cable which are connected to a computer.
2. It has a light source, lens and a photo conductor .
3. Barcode reader are available in several forms(handheld, hands-free, wearable, scan engines, laser or digital).

Handheld Barcode Technology



Hands-free Barcode Technology



Wearable Barcode Technology



Scan Engines Barcode Technology



Laser or digital Barcode Technology



Advantages of Barcode reader

1. It allows real time data to be collected accurately and rapidly.
2. It is a reliable technology.
3. It is less expensive.
4. It is portable in size and simple to use
5. It is suitable for small business
6. It requires low maintenance



Disadvantages of Barcode reader

1. Barcode reader requires computer or POS(Point of Sales) terminal to work.
2. It is labour intensive as it requires to be scanned individually.
3. It is less secure compare to others
4. Scratched or crumpled barcodes may cause problems while scanning.

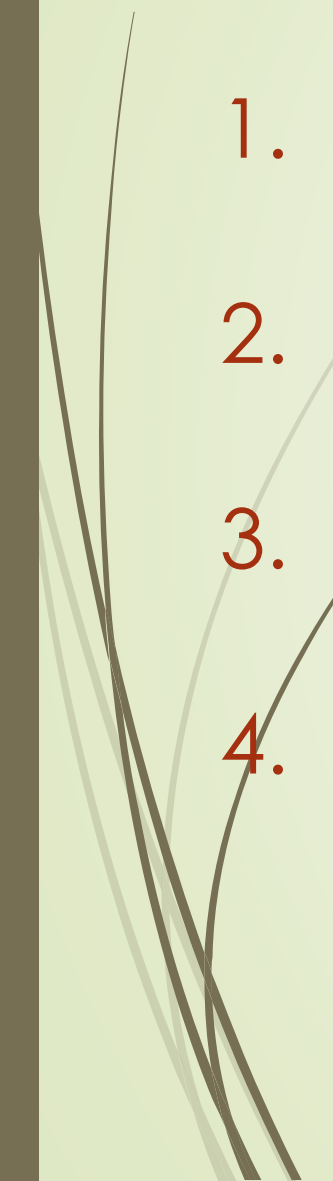


Scanner

- ➡ A scanner is a device used to capture images from document and convert the image into a digital information for computer processing.
- ➡ Scanners work by capturing images from Posters, magazines, paper, etc. and convert the image on the document into a digital information that can be stored on the computer, edited, or printed.



Types of Scanner

1. Flatbed scanner: document is placed on a flat surface for scanning.
 2. Sheetfed: scans documents fed into the scanner one at a time.
 3. Handheld scanner: portable handheld device which has to be carried over a document to scan.
 4. 3d scanner: they collect distant point measurement from a real-world object and translate them into a virtual 3D object.
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Flatbed Scanner



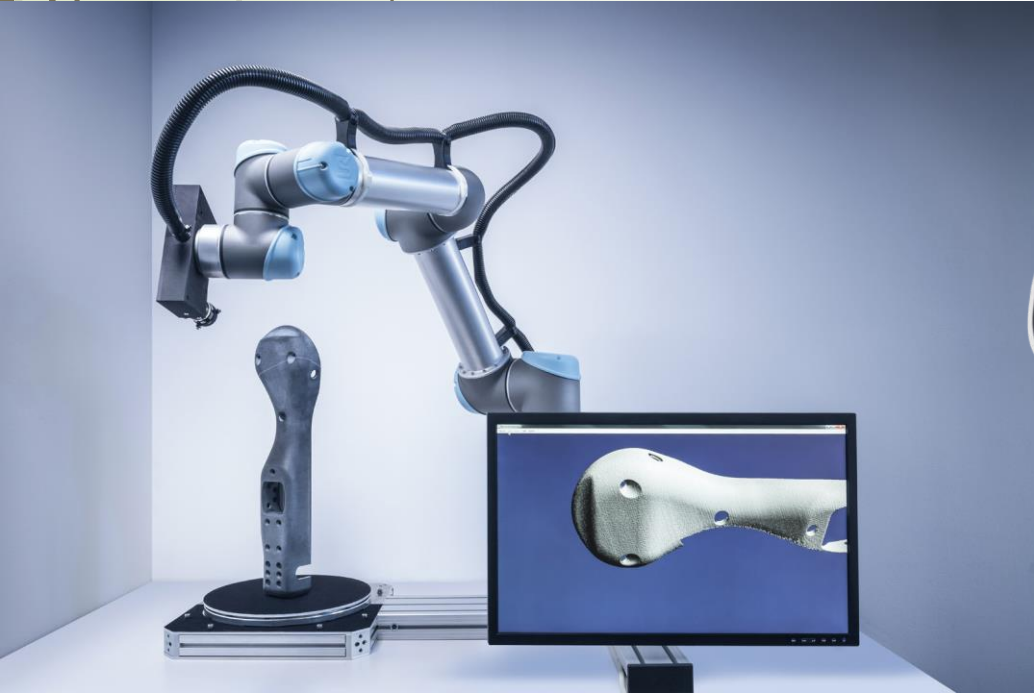
Sheetfed Scanner



Handheld Scanner



3d Scanner





Advantages of Scanner

1. Flatbed scanner is very accurate and can produce reasonable high quality images.
2. Any image which is digitized by the scanner can then be included on electronic documents.
3. Images once digitized can be enhanced with a graphic application



Disadvantages of Scanner

1. Images produced by scanner can take up a lot of memory space
2. Images lose some quality in scanning and digitizing process.
3. The quality of the final image is dependent on the quality of the original image.
4. Emotional expressions can be lost during scan

The Keyboard

- A keyboard is an input device that is used to key in alphanumeric symbols and issue commands into the computer.
- There are various types of keyboards, they include;
- Standard wired keyboard
- Wireless keyboard.



Types of keyboard layout

- There are various types of keyboard layout
- • QWERTY
- • Da Vinci
- • DVORAK





Uses of Keyboard

1. It is used to write documents
2. It is used to send commands/instructions to computer. (e.g., Print Scrn, Ctrl+P, etc.)
3. It is used to navigate user interfaces in the absence of a mouse



Advantages of Wireless Keyboard

- 1. Portable - easy to move around
 - 2. Lack of clutter – reduces mixed-up wires on the work table.
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Computer Mouse

- Mouse is a cursor-control device used to control the position of the cursor and sending instructions to the computer.
- Generally, it has two buttons called the left and the right button and a wheel is present between the buttons.



Variety of mouse include

- Mechanical mouse
- Optical mouse
- Optomechanical
- Wireless.





Uses of Mouse (Wireless)

1. It is used to control the position of the cursor on the screen.
2. It is used to open or lunch programs on the computer .
3. It is used for moving pictures on the screen.
4. Used for selecting test on the screen
5. For drawing and painting pictures.



Advantages of Wireless Mouse

1. Portable and easy to use.
2. More convenient and versatile.
3. It can be used at distance away from the receiving device.
4. Can be used on other device such as tablet and smart televisions.
5. Reduce cluster of wires on the work table

Other input devices



1. Optical Mark Reader (OMR)

2. Touchscreen



3. Light Pen



4. Magnetic Ink Card Reader (MICR)



5. Digitizer

6. Joystick



Importance of Input devices

1. Input devices help computer Users to input data into the computer
2. Input devices help computer Users to edit data sent into the computer
3. Input devices help computer Users to instruct the computer

Disadvantages of Some input devices

1. Wireless keyboard/mouse operate on batteries hence will not work on dead batteries.
2. Images lose some quality in scanning and digitizing process.
3. Laser light from some scanners can be dangerous to computer users
4. Input errors can occur leading to incorrect data entry or command
5. The use of some input devices can be labour intensive.

Areas Where Various Input Devices Are Used.

1. Keyboard is mostly required the Restaurant Industry, School Laboratory, Hospitals, Super market and Malls, Schools, etc. at any sector where there is a need for data entry.
2. Barcode reader is used in supermarkets, shops, libraries, and other companies to read information in the form of barcode marks on product castings.
3. Touchscreen: Point-of-Sales terminals at restaurants, supermarket, etc. Self-service Sectors, for example at petrol stations, where the user just touches the screen to select the fuel grade and payment method.
4. Magnetic Ink Card Reader is generally used in banks to read cheques.

Areas Where Various Input Devices Are Used.

1. Optical Mark Reader is specially used for checking and marking large number of answer sheets of examinations having multiple choice questions.
2. Digitizer can be used for fine works of drawing and image manipulation applications in the art industries.
3. Joystick is mainly used in Computer Aided Designing (CAD) and playing computer games.
4. Mouse is used as the point device on the computer and For drawing and painting pictures in the art industries.