

Joystick

Joystick is also a pointing device, which is used to move the cursor position on a monitor screen. It is a stick having a spherical ball at its both lower and upper ends. The lower spherical ball moves in a socket. The joystick can be moved in all four directions.



The function of the joystick is similar to that of a mouse. It is mainly used in Computer Aided Designing (CAD) and playing computer games.

Light Pen

Light pen is a pointing device similar to a pen. It is used to select a displayed menu item or draw pictures on the monitor screen. It consists of a photocell and an optical system placed in a small tube.



When the tip of a light pen is moved over the monitor screen and the pen button is pressed, its photocell sensing element detects the screen location and sends the corresponding signal to the CPU.

Track Ball

Track ball is an input device that is mostly used in notebook or laptop computer, instead of a mouse. This is a ball which is half inserted and by moving fingers on the ball, the pointer can be moved.



Since the whole device is not moved, a track ball requires less space than a mouse. A track ball comes in various shapes like a ball, a button, or a square.

Scanner

Scanner is an input device, which works more like a photocopy machine. It is used when some information is available on paper and it is to be transferred to the hard disk of the computer for further manipulation.



Scanner captures images from the source which are then converted into a digital form that can be stored on the disk. These images can be edited before they are printed.

Digitizer

Digitizer is an input device which converts analog information into digital form. Digitizer can convert a signal from the television or camera into a series of numbers that could be stored in a computer. They can be used by the computer to create a picture of whatever the camera had been pointed at.



A graphic tablet as digitizer is used for fine works of drawing and image manipulation applications.

Microphone

Microphone is an input device to input sound that is then stored in a digital form.



The microphone is used for various applications such as adding sound to a multimedia presentation or for mixing music.

Magnetic Ink Card Reader (MICR)

MICR input device is generally used in banks as there are large number of cheques to be processed every day. The bank's code number and cheque number are printed on

the cheques with a special type of ink that contains particles of magnetic material that are machine readable.



This reading process is called Magnetic Ink Character Recognition (MICR). The main advantages of MICR is that it is fast and less error.

Optical Character Reader (OCR)

OCR is an input device used to read a printed text.



OCR scans the text optically, character by character, converts them into a machine readable code, and stores the text on the system memory.

Bar Code Readers

Bar Code Reader is a device used for reading bar coded data (data in the form of light and dark lines). Bar coded data is generally used in labelling goods, numbering the books, etc. It may be a handheld scanner or may be embedded in a stationary scanner.



Bar Code Reader scans a bar code image, converts it into an alphanumeric value, which is then fed to the computer that the bar code reader is connected to.

Optical Mark Reader (OMR)

OMR is a special type of optical scanner used to recognize the type of mark made by pen or pencil. It is used where one out of a few alternatives is to be selected and marked.



It is specially used for checking the answer sheets of examinations having multiple choice questions.