

Chapter 5

Working With Mouse

Mouse is another basic input data device.

It is used to **move the cursor** across the **screen**.

It has a **detection device** and is mostly used on flat surfaces.

Most common mouse has **left** and **right** buttons with a **Scroll wheel** between them.

To select items or choose commands on the screen, the user presses a button on the mouse.



Let us dissect this in some more details

Story -

Year **1963-1964** – Computers in those days were large and expensive. They were not at all user friendly. It was difficult to work with them as everything had to be typed in by hand.

A researcher “**Douglas Engelbart**” wanted to find a way to make using computers easier. For this purpose he then invented an input device which he named as “**XY index device**”



How has the mouse increased computer usability?

Computer mouse have changed the way we interact with computers today. When using a computer mouse, you don't have to memorize commands. For example,

- In MS-DOS, you would need to know the [cd command](#) and [dir command](#) and type the commands on the keyboard to open a [directory \(folder\)](#) and [view](#) its files.
- Whereas a Windows user only has to [double-click](#) to open a folder and see its contents.

What are the uses of a mouse?

Below is a list of all the computer mouse functions and options. Lets learn practically

1. **[Move the mouse cursor](#)** - The primary function is to [move](#) the [mouse pointer](#) on the screen.
2. **[Point](#)** - Once the mouse is moved, you can [point](#) something out for another user or point a digital object. For example, in a game you can use the mouse to point a gun in the direction to shoot.
3. **[Open or execute a program](#)** - Once you've moved the pointer to an icon, folder, or another object [clicking](#) or [double-clicking](#) that object [opens](#) the document or [executes](#) the program.
4. **[Select](#)** - A mouse also allows you to [select](#) text or a file or [highlight](#) and select multiple files at once.
4. **[Drag-and-drop](#)** - Once something is selected, it can also be moved using the [drag-and-drop](#) method.
5. **[Hover](#)** - Moving the mouse cursor over objects with hover information helps discover each object's function.
6. **[Scroll](#)** - When *working* with a [long document](#) or *viewing* a [long web page](#), you may need to *scroll up or down*.

What are the Types of a computer mouse?

There are varieties of computer mouse types available and used today. In this chapter, we will learn about

- ✚ Optical Mouse
- ✚ Mechanical Mouse
- ✚ Trackball Mouse

Optical Mouse – The mouse that uses optical medium (i.e light or optical sensor) for movement is called an optical mouse.

When we move the mouse, the light track its movements and moves the cursor accordingly.



Mechanical Mouse – The mouse that uses a metal or rubber ball as a medium for movement is called a mechanical mouse.

When we move the mouse, the ball movement is tracked and the cursor moves accordingly.



Trackball Mouse – This type of mouse is mostly used in Gaming. The mouse that has a ball on its upper side is called a trackball mouse.



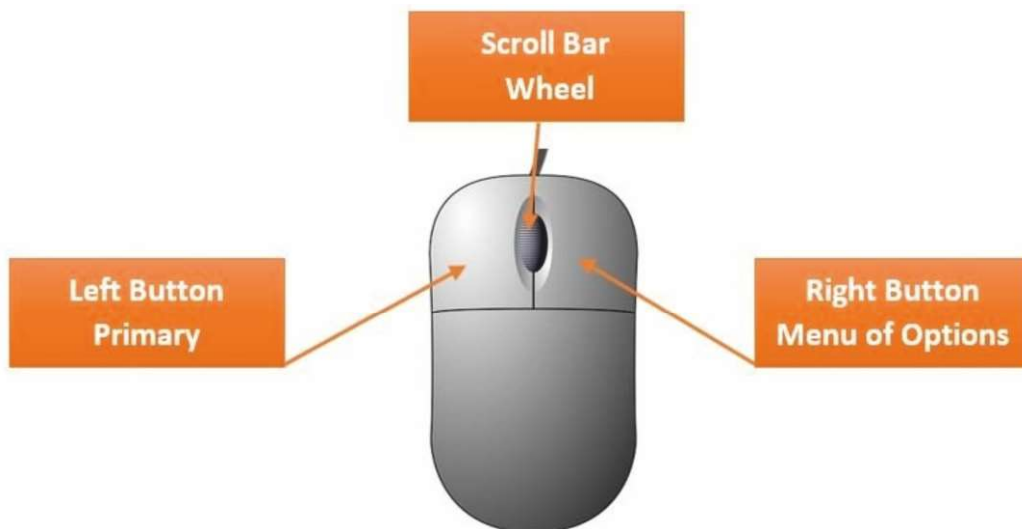
What are the parts of a computer mouse?

The parts of a computer mouse can vary by the type of computer mouse. Below is a general overview of the parts found on most computer mice.

Buttons

Today, almost all computer mice have at least **two** buttons, a **left** button and **right** button for clicking and manipulating objects and text.

A desktop mouse with a **wheel** may have the wheel act as a third mouse button when pressed. Also, many desktop mice have additional thumb buttons, so it's also possible for a mouse to have five or more buttons.



Mouse wheel

Today's desktop computer mice also usually include a mouse wheel that allows you to scroll up and down on a page.

Instead of rolling the wheel, if you push in on the wheel, it can be used as a third button.

Ball, laser, or LED

A desktop mouse

- Uses a **ball** and **rollers** if it's a *mechanical* mouse or
- **Laser** or **LED** if it's an *optical* mouse.

These components track the *movement* of the mouse on an *x-axis* and *y-axis* and move the *mouse* cursor on the screen. In the picture is an example of the bottom of a mechanical and optical mouse.



Circuit board

To transmit (*input*) all mouse signal *information*, *clicks*, and other *information*, the mouse must also have a *circuit* board with integrated *circuits*.

Cable or wireless receiver

For a corded mouse, it includes a cable with a plug that connects to the computer.

Other parts

If you're using a laptop, some of the above components mentioned earlier are not required. For example, a touchpad does not use a ball, laser, or LED to control movement; it uses your finger on the touchpad.

What does a laptop use for a mouse?

Because a laptop is designed for portability, almost all laptops today use a touchpad as the mouse,

Touchpad does the same job as Mouse.

Touchpads are mostly inbuilt in a keyboard with a **specialized sensory surface**. But an external usb touchpad is also available.

This surface detects the motion position of a user's fingers and moves the cursor on the screen accordingly.



Inbuilt Touchpad



External USB Touchpad

What hand should I use to control the mouse?

By default, a computer mouse is *set up* to be used with your *right* hand. However, if you're left-handed, *it can be set up* to be used with your *left* hand.