Computer mouse

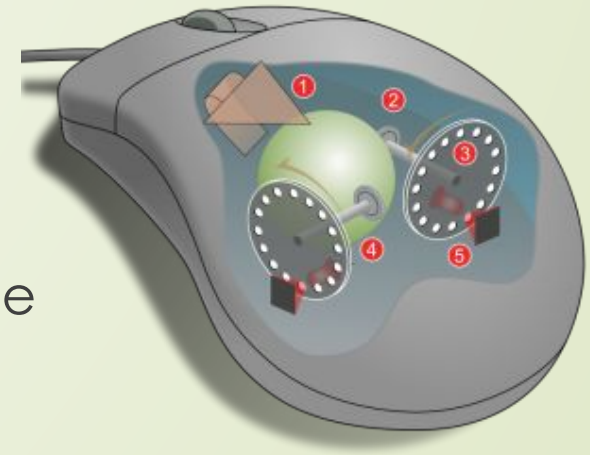
The mouse manipulator (simply" mouse") is a mechanical manipulator that converts mechanical movements into cursor movements on the screen.

Direct drive

The original design of the mouse movement sensor, invented by Douglas Engelbart at the Stanford research Institute in 1963, consisted of two perpendicular wheels protruding from the body of the device. When you move the mouse wheel is spun, each in its dimension. This design had many disadvantages and was soon replaced by a ball-driven mouse.

Optocouplers (optomechanical) sensors

The optocoupler sensor consists of a double optocoupler — led and two photodiodes (usually infrared) and a disk with holes or x — ray slots, blocking the light flux as it rotates. When the mouse is moved the disk rotates and the photodiode is removed, the signal with the frequency corresponding to the speed of the mouse movement. The second photodiode, shifted by a certain angle or having an offset system of holes/slots on the sensor disk, is used to determine the direction of rotation of the disk (light appears/disappears earlier or later than on the first, depending on the direction of rotation).



Touch control

- In 2009, Apple introduced the Magic Mouse, which is the world's first mouse with touch control and support for multi-touch technology. Instead of buttons, wheels and other controls, this mouse uses a touchpad that allows you to use a variety of gestures to press, scroll in any direction, zoom pictures, transitions on the history of documents, etc.

Wireless mouse

The signal wire of the mouse is sometimes considered as an interfering and limiting factor. Wireless mice do not have these disadvantages. However, wireless mice have a serious problem-together with the signal cable, they lose stationary power and are forced to have a stand-alone, from batteries or batteries, which are oft far from perfect.

Unusual computer mouse