

Which CAD Input Device Is Right for You?

As a CAD user, you likely spend **many hours at your computer** each week, so it's crucial that you find an input device that's suited to your body and your work. There are more options available than ever before, but which one is **best for you**? Before you decide, try to **test out** a variety of models — in a store display, during a trade show, or at coworkers' desks — to experience their size, shape, and operation for yourself. And after your purchase, give your body and brain a week or more to completely adjust to the change.

Budget-Friendly

You can pick up a **standard three-button wired mouse** for less than \$5. At this level, however, the comfort, longevity, and precision are usually limited. You can get a significantly higher-quality product by moving up to the \$20–40 range. Makers include Microsoft, HP, and Samsung. Look for a scroll wheel with clear delineation in feel between clicking and rolling. Laser tracking is typically more precise than optical tracking.

Body-Friendly

If you experience discomfort while mousing, or if you're hoping to prevent repetitive strain injuries (RSIs), look for devices that reduce repeated motions and position your hand and wrist comfortably. One option is the **vertical mouse**, which is similar to the old standby, except that it's rotated from the standard palm-down mousing position toward the "shaking hands" position. Makers include Evoluent, Anker, and Posturite.

Some users are completely devoted to **trackballs**; others can't stand them. Because the user only manipulates the rotating sphere instead of moving the entire unit, less effort is required and it's easier to keep the arm in a comfortable position. In addition, many models have an ergonomically sculpted base that supports the hand. Some manufacturers, including Logitech and Kensington, offer ambidextrous versions so you can switch sides to combat fatigue. Prices run the gamut, starting around \$25 for new models and pushing past \$500 for discontinued favorites.

Just for 3D

If you regularly work in 3D, try out a **3D mouse**, which enables three-dimensional rotation and positioning of your models and is typically used in tandem with a standard mouse. Expect to pay \$100–400; makers include 3Dconnexion and Space Control. Before you invest in a programmable or 3D device, check with the manufacturer or your software vendor to be certain that it's compatible with your design software.

Maximum Mobility

Frequent travelers should consider a **downsized version** of their usual device to save weight and space in their luggage, and **wireless connectivity** for mousing on cramped work surfaces. Even those who never leave the office may want to move their device around their workspace; wireless models deliver that freedom and keep the desktop tidier. However, both battery-operated and rechargeable options can run out of juice at inopportune moments; compare expected battery life on models you're considering. Latency or lost connections are infrequent problems, but can arise if there's interference.

Command Customization

Some users prefer to enter commands on the keyboard; others find they save time by mapping keyboard shortcuts and macros to input device buttons. Look for a device that has plentiful, comfortably arranged buttons and driver software that enables you to customize them as you wish. Many CAD users choose high-resolution **gaming mice** with buttons that respond quickly. They are typically more expensive than standard mice, but companies such as Razer and Corsair offer many options in the double-digit price range.

Specialized Designs

Your choices aren't limited to the categories mentioned here; there are still more available, tailored to particular needs. For example: 3Dconnexion's CadMouse modifies the standard three-button layout **specifically for CAD users** with a dedicated middle button in addition to the scroll wheel, and a thumb button for zooming ([click here to learn more](#)); Contour Design's RollerMouse restructures mouse functionality into a **horizontal rollerbar** positioned below the keyboard; and the Geomagic Touch haptic device provides **force feedback**, mimicking the resistance of physical manipulation while users model digitally.