Hardware is part of the "real" world, it all eventually wears out. Being a physical thing, it's also possible to break it, drown it, overheat it, and otherwise expose it to the elements.

Here are some examples of hardware:

Smartphone
Tablet
Laptop
Desktop computer
Printer
Flash drive
Router

While a smartphone is a piece of hardware, it also contains software and firmware (more on those below). Hardware devices are also comprised of *other* hardware devices; a tablet or computer, for example, contains individual components like a motherboard, a processor, memory sticks, and more.

While it's not always this easy, using one of your five senses—except taste; please don't taste any part of your computer system—is often your best way to tell if the hardware is the cause of a problem. Is it smoking? Is it cracked? Is it missing a piece? If so, the hardware is probably the source of the concern.

As sensitive as we've made hardware out to be in what you've just read, one great thing about hardware is that it can usually be easily swapped out. The software you lose may be irreplaceable, but most hardware is "dumb"—the replacement often being as valuable as the original.

See this list of computer hardware devices for more on some of the common parts of a computer system and what they're used for.

Software Is Virtual: It Can Be Copied, Changed, and Destroyed

Software is everything about your computer that *isn't* hardware.

Here are some examples of software:

Operating systems like Windows 11 or iOS
Web browsers
Antivirus tools
Adobe Photoshop
Mobile apps

Since software is information and not a physical thing, there are few barriers to it. For example, one physical hard drive might take two pounds of materials to create, meaning 3,000 hard drives would take 6,000 lbs of materials. One software program, on the other hand, can be duplicated 3,000 or 300,000 times, over as many devices, but be taking up essentially no more physical resources.

Software interacts with you, the hardware you're using, and with hardware that exists elsewhere. A photo-sharing software program, for example, on your PC or phone works with you and your hardware to take a photo and then communicates with servers and other devices on the internet to show that photo on your friend's devices.

Software is also extremely flexible, allowing it to be continuously updated and modified. While you certainly wouldn't expect your wireless router to "grow" another antenna or your smartphone to get a bigger screen as it charged on your nightstand, expect your software to regularly gain features and grow in size as it's updated.

Another great thing about software is its potential to last indefinitely. So long as the software is copied to newer hardware before the current device fails, the information itself could exist as long as the universe does. Equally amazing is that software can be destroyed. If

there are no copies, and the software is deleted, it's gone forever. You can't run to the store and pick up a replacement for information that never existed anywhere else.

How to Safely Download & Install Software

Troubleshooting a software problem is usually more complex than working through a hardware one. Hardware glitches are often times straightforward—something is broken or not and may need to be replaced. The steps required to solve a software problem depend on what information you're given about the error, what *other* software is running, what hardware that software is running on, etc.

Most software issues start with an error message or another indication. It's here that you should start your troubleshooting process. Search for the error or symptom online and find a good troubleshooting guide that will work you through the problem.