

# Buying A New Computer

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From time to time, every computer specialist is asked, "What computer should I buy?" The answer is usually, "What do you intend to do with it, and how much can you afford?" This article addresses the major decisions required if you are buying a new computer.

## Apple or PC?

They will both do what you want, which is probably doing things on the internet.

Both systems run popular software, such as Office or Photoshop.

It can simplify life if you stick to one device operating system. For instance, an iPhone might be good if you have a Mac computer or an iPad with iOS. On the other hand, if you have a PC running a Windows operating system, then an Android phone will be the most compatible.

I use an iPhone and a PC together and have not had issues. I mostly transfer photos between my devices, usually using email, which allows me to transfer 8 - 10 pictures at a time. For mass transfers of photos, I use the Apple USB charger to connect my iPhone to my PC.

If you plan to do any action gaming, most games are at least initially written for a PC running Windows.

It's likely any PC you buy today will come with Windows 11, the latest manifestation of the Windows long-running operating system. A few vendors might still be selling old stock of Windows 10 computers, but it is a free and easy upgrade to Windows 11. Windows 11 is very similar to Windows 10; most users will notice that it now appears more like an Apple interface, and Windows 11 is more closely integrated with Microsoft's OneDrive.

Apple Macs are generally a little to a lot more expensive than comparable PCs. Still, they're less susceptible to viruses and other malware, mainly because 75% of all computers run Windows, making them a potentially more profitable target for hackers. The latest macOS version is 12.3 (Monterey), released in March 2022.

## Desktop Computer or Laptop?

Desktops, aka tower computers, generally offer more performance for the same money as laptop or notebook computers and are easier and cheaper to repair or upgrade. However, desktop computers'

price/performance advantage is not nearly as dramatic today as in the past, as computer designers and manufacturers devote more resources to miniaturizing components. In addition, desktops provide a more ergonomically correct working position, let you use a larger screen, and usually have better sound.

## **All-in-One Desktop**

All-in-one desktop computers, also known as AIO systems, combine a computer and monitor into one slick-looking package. These AIO systems have become increasingly popular as people want to eliminate as many parts and wires as possible. However, the major downside of AIOs is that their components are tightly packed in the display, making them difficult to upgrade or repair.

## **Laptops**

Naturally, laptop computers are infinitely more mobile than desktops since they are smaller and utilize a battery for power rather than requiring a wall socket. A laptop is a way to go if you plan on using your computer while traveling. Some users combine the best of both worlds by using a desktop system at home and taking a tablet-style computer, such as an iPad or Kindle Fire, on the road.

Another laptop option is using a “docking station” in your home. You can easily attach a full-sized monitor, keyboard, mouse, and even speakers to a laptop to gain the ergonomic advantages of a desktop.

No matter what PC format you choose, some component options exist.

## **The Processor**

Apple now manufactures its processors, and its weakest offering is the equivalent of an Intel core i5 processor. Multiple cores can process more data simultaneously, and most computers today come with multiple-core CPUs.

In a PC, you have multiple processors from which to choose. For a system that will perform well today and into the foreseeable future, I recommend Intel’s 11<sup>th</sup> generation Core i5 CPU, an actual six-core processor alternately known as the Rocket Lake series. You will still see manufacturers selling 10th-generation Intel chips, but without your budget, the 11<sup>th</sup> generation is 20% faster, making it a better value. In recent years the other major manufacturer of CPUs, AMD, has provided an excellent cost-effective alternative to Intel. Still, it appears that Intel has decided to compete in the personal PC space. The AMD Ryzen 5 series, at least 2600 speed, should be comparable to Intel’s i5.

Any processor available today will be sufficient if you’re shopping for a budget computer to browse the web, email, and maybe just work on documents.

## **Memory**

Generally, the more memory a computer has, the faster it is, at least when you have multiple windows open. In 2022 8GB has become the standard, with 16GB or more found on more high-performance and future-proof devices.

## **Hard Drive**

Go with an SSD (solid-state) drive. SSDs are a relatively new technology using flash memory that's 4 - 10 times faster than mechanical hard drives; there are no moving parts. As a result, an SSD is the single largest performance boost you can give a computer compared to one with a mechanical hard drive.

## **Optical Drives (CDs and DVDs)**

Optical drives are going away from the ancient 3½-inch floppy disk. Virtually any software support needed is available online, and most users are now streaming music and other entertainment. If you need one, for instance, to install an old program or watch a DVD, you can buy an external USB optical drive that plugs into a USB port for around \$25.

## **Graphics Card**

The graphics processing unit (GPU), or graphics card, is the hardware responsible for producing what appears on the screen. The GPUs can be integrated into the CPU or run on a separate, discrete piece of equipment.

Most computers sold today have integrated graphics, the cheaper, lower-performance option. Integrated graphics are OK for most of what you will be doing but not for things such as action gaming and video editing. On the other hand, photo editing and playing games such as Microsoft Solitaire work fine with integrated graphics.

## **Conclusions**

If you talk to 5 different computer geeks, you can get ten or more opinions on any computer issue, such as those discussed above. I have provided my opinions on things you should consider when buying a new computer system, hopefully, to make this less confusing. Buying a computer will ultimately be based on your needs and your budget.

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