



How to Pick Out a New PC

Picking out a PC can be a very complicated and confusing task. In this blog post, we will try and break down the process to make things a little easier. We will be talking about picking out the right PC for you as well as breaking down what the specifications actually mean.

Things to consider

Before you begin your search, it is important to consider what you will be using your computer for. Will you be using your computer to run programs like Office and browse the web, or will you be doing heavy tasks like video editing or 3D modeling? How much are you planning to store on your computer? Having an idea of what you will be using your PC for is an important first step to pick out the PC that is right for you.

Storage

Storage is an important consideration when picking out a new computer. You want to make sure you have enough space to store all your files! Going back to the first part of this blog post, you should have an idea of what you will be storing on your computer. If you have a bunch of large files you need to keep on your PC, you will want to search for a computer that has plenty of storage. If you will be using the computer just to browse the web and maybe store a few files, you will not need as much space. Generally, a good starting point is getting at least 256GB of storage. When looking at a PC, you might also see terms like SSD or HDD listed in the storage specifications. HDD (Hard Disk Drive) is a type of hard drive that uses an internal magnetic disk (also known as a “platter”) to store data on. It uses an arm with read and write heads to find the location of the stored data on the platter and read or write to it. Something to look out for is the RPM (rotations per minute). Usually hard drives are going to be either 5400 RPM or 7200 RPM. The 7200 RPM hard drive will be able to read and write data faster than the 5400 RPM. SSD (Solid State Drive) is a newer storage device than traditional hard drives and offers blazing fast performance. SSDs use semiconductor chips to store data which is much quicker than reading and writing to a magnetic disk. If we were to compare an HDD vs an SSD, the HDD is much slower but usually offers more storage per dollar compared to the SSD. In short, getting an SSD is a much better choice for performance and speed. Some popular configurations come with both an SSD and an HDD installed. This allows the computer to take advantage of the speed of the SSD while offering more storage with the second hard drive.

RAM

RAM (Random Access Memory) can be thought of as your computer's short-term memory. It remembers things like your opened applications, Windows services, and other things. Once you turn off your computer, this memory will disappear. In a simple explanation, the more RAM you have, the more programs and/or browser tabs you can have open. Each program you are running will be taking up some RAM, so you want to make sure you have enough RAM to handle your workload. Most modern Windows machines come with 4GB-16GB of RAM. Ideally, we would recommend getting at least 8GB of RAM. If you plan to do more intensive tasks like video editing or 3D modeling, you might want to consider jumping up to 16GB or even 32GB.

Processor

The processor or CPU (central processing unit) can be thought of as the brains of your computer. The processor computes and processes everything you do. This is where things might get confusing as you will see terms like "quad-core" or 3.5GHz. To keep it simple, you can break down the CPU into two categories to look for: cores and speed. Now there is more to a CPU, but those two categories are important to note when buying a new PC. The speed of a processor, generally measured in GHz (gigahertz), refers to how fast the processor can process data in how much time. The higher the number the more data the CPU can process in a shorter amount of time. The number of cores allows the CPU to do different tasks at the same time. It's basically multitasking. If you don't use many programs at the same time, it would okay to get a CPU with just a few cores. If you like to have a lot of programs open at the same time or are using intensive programs like 3D modeling or video editing programs, you may want to consider looking for a CPU with more cores.

Graphics Card

A graphics card (sometimes referred to as GPU or graphics processing unit) takes care of all of your video processing. A fantastic analogy from [HowStuffWorks](#) provides a great summary of how a graphics card actually operates.

"Think of a computer as a company with its own art department. When people in the company want a piece of artwork, they send a request to the art department. The art department decides how to create the image and then puts it on paper. The end result is that someone's idea becomes an actual, viewable picture."

The graphics card works on a similar principle. The CPU (remember, the brains of your computer) sends information about the image to the graphics card which then processes that information and displays in on your monitor. One thing you will come across when buying a new computer is integrated vs dedicated graphics card. When a computer uses an integrated graphics card, it often comes with your CPU. This will use some of your system's RAM since it doesn't have its own dedicated RAM. This will provide adequate performance for most users, but if you are looking to do video editing, 3D modeling, or gaming, consider a dedicated graphics card. When it comes to dedicated graphics cards, your two main options are Nvidia and AMD. Both make great graphics cards and offer many graphics cards at different price points. There are a

few points to consider when picking out a graphics card like clock speed, memory, cores, and a few others. If you want to get a dedicated graphics card, it is important to do some research on what graphics card would work best for you.

Conclusion

And that's it. Hopefully this cleared up some confusion about computer specifications and will provide you with confidence in what you are purchasing.