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Lenovo

Pick Your Esports PC Power

More than 170 Higher Ed schools in the U.S. have varsity esports programs, and they're quickly catching on at high schools, too. In selecting technology for esports, you should opt for something that meets the size and scope of your program today and future-proofs you for tomorrow.

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Here are seven key considerations for an esports PC:

1. PROCESSOR: THE HEART OF THE SYSTEM



An esports program will make any computer jump through hoops. Your processor will decide how high you can leap, affecting how fast your computer can perform tasks.

Intel® remains the market-share leader in high-performance CPU and a smart choice for serious competitors.

Tournaments and esports programs will typically provide minimum and recommended technical specifications, so that's a good place to begin evaluating how much processing power you need. High frequency, multi-core CPUs can increase your data processing abilities to boost creative capabilities and productivity. Six to eight cores are a sound starting point, especially if you plan to use the PC for other purposes.

From a gaming standpoint, the number of threads—components which help deliver the workload to the CPU more efficiently—is important as well. A higher thread count can improve performance if you plan to stream or record game footage and upload it to YouTube or some other site. Combining that six to eight cores with 12 to 16 threads should get the job done.

CPU speed is measured in GHz (gigahertz). For a smooth experience, 3.0GHz will satisfy most gamers, though faster is generally better.

2. GRAPHICS CARD: SEEING IS BELIEVING



Nothing gets more graphic than esports; a good GPU can make or break your experience. Using a poor video card can cause the game to lag, look odd, or even become unplayable.

NVIDIA® has long been at the top of the video-card industry in terms of optimization and driver support. For older games that operate at slower speeds, an entry-level GPU is sufficient. As you move to games that immerse you in more realism, and demand high performance, you need to leverage the most advanced GPU architecture.

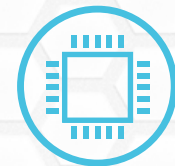
The latest NVIDIA® GeForce® cards are ideal for any monitor up to the trailblazing 4k gaming. The NVIDIA® GeForce® RTX 2070 provides up to 6X the performance of previous-generation graphics cards.

3. OPERATING SYSTEM: TRIED AND TRUE



All games are written for Windows. It's also a tested OS to provide consistent and reliable gaming experience. Consequently, players will benefit from the latest versions of the Windows operating system, Windows 10 Pro 64 or Windows 10 Home 64.

4. RAM: CUTTING OUT THE LAG



Random Access Memory (RAM) is among the most important parts of any computing device. RAM stores temporary data on the fly as the PC handles tasks. If you don't have enough RAM, you'll get lag—a sure-fire way to throw your players off rhythm and cause mistakes.

Modern PCs usually start at 4GB, but for esports that's like bringing a ping-pong ball to a tennis match. For gaming purposes, 8GB is suitable for entry-level, but as you get to the big leagues, 16GB is better for graphics-intensive games. Some games even require 32GB.

5. STORAGE: MAKING A SOLID CASE



Forget about capacity. For esports athletes, storage is about speed first and foremost. Hard disk drives have given way to solid state drives (SSD), which are flash-based drives with no moving parts and don't wear out. SSDs are beneficial for both what they give less of (heat, noise) and what they give more of (saving progress and launching games faster). A game that takes 60 seconds to load on a traditional hard drive requires less than a third of that on an SSD. A 512GB SSD should hold Windows and most of your games, but you might want to boost that up to 1TB.

6. COOLING: COOL UNDER PRESSURE



Professional athletes cool down after their event; esports athletes need to keep cool from beginning to end. Your computer's thermal system should be designed to stay cool under pressure, with dedicated thermal channels for both the GPU and the CPU. The intake and outtake fans should be large enough to keep air circulating no matter the size of the interior.

7. FORM FACTOR: MORE CHOICES THAN EVER



Esports PCs come in a wide array of sizes and shapes. Typically, desktops are favored over laptops, because they are easier to upgrade and cool, which improves performance in games with high-system requirements.

Mid-tower and full-tower PCs offer different advantages, often with tradeoffs of how much physical space they require and how easy they are to upgrade and work on because of the size of the housing. New generations of esports PCs also come in a small, cube-like form, with a handle that make them easy to transport.

Given the popularity of esports, you want a system that can grow with you. Some cases are designed so panels can be removed without the need for tools, providing quick and easy access to the internals for tweaks and upgrades.

And that's a good philosophy for esports requirements overall. Pick what suits your needs today but will still be adequate in the future. Because the one sure thing is esports will continue to grow in popularity, and new games will challenge competitors—and systems—even more.

Build Your End-to-End Esports Solution

Creating an esports program that meets the many needs of students and schools can represent a complex challenge. Fortunately, Lenovo Esports Solutions for Education offers advisory services geared to bringing custom, end-to-end solutions for K-12 and Higher Education esports programs. Committed to building smarter technology and empowering students and teachers through transformative education solutions, Lenovo is helping esports level up the intersections of learning and gaming.

To gain high-level development and gaming performance without the high price, look to the ThinkStation P520c Tower Workstation. Featuring an Intel® Xeon® W-2102 Processor with vPro™, Windows 10 Pro for Workstations 64, and NVIDIA® Quadro® P620 Graphics, it's a solid, configurable workhorse.

For schools seeking to power serious gameplay, look no further than the Legion 5i gaming tower and laptop. Featuring up to Up to 10th Gen Intel® Core™ i7, up to Windows 10 Pro, NVIDIA® GeForce™ Graphics, and a range of configurations, the Legion 5i gaming tower and gaming laptop deliver capabilities and flexibility that puts them in a league of their own.

Lenovo is a trusted resource to advance gaming within educational environments—providing consultation on school objectives, planning programs, installing dedicated esports arenas, setting up and managing varsity teams for league competition, and more.

To learn more, visit **Lenovo Esports Solutions for Education**.

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