Budget Gaming PC Solutions

In order to build a gaming PC that's at the bleeding edge of computational horsepower, you'll need to put down a large sum of money. By haphazardly piling components into a shopping basket, it's possible to build a machine that's well in excess of several thousand pounds. If you don't have such a sum burning a hole in your pocket, you might conclude that a gaming PC is beyond your reach.

Fortunately, this isn't the case. You needn't burst the bank in order to play all of your favourite games to a high standard. But building a budget machine will require a little bit of research, patience and understanding. In this article, we'll explore how this might be done, detailing the components you can cut back on – and the ones which you really can't do without.

Motherboard

The motherboard is arguably one of the most important of all of the components on your PC. A high-end one can easily command a figure of more than £300, while a budget one might be little more than £50. You'll want to ensure that you've got enough power that your motherboard doesn't form a performance bottleneck – but at the same time, if your computer is at the lower end of the market, you won't need to concern yourself with support for multiple graphics cards and super-fast memory.

For example, this motherboard from Gigabyte supports 6th generation Intel processors and dual-channel DDR4, and so it's a perfect match for the budget-conscious gamer.

Graphics card

Today, an enormous amount of graphical horsepower can be purchased for very little. This makes newer high-resolution monitors feasible, and allows for traditional 1080p gaming to be enjoyed at astonishing frame rates.

Since graphics cards are so important for a great gaming experience, the most powerful of them can command huge sums. 'Titan' designated cards come at a price tag which matches their name – and they provide those who take gaming very seriously with unparalleled power.

That said, it's still possible to get great performance without going to this extreme. NVidia have recently launched their new '1000' series of graphics cards. At the budget end of the new range you'll find the gtx 1060 – a card that's capable of delivering high frame rates for a relatively low price.

CPU

Modern games are, for the most part, angled more toward graphics cards than they are toward the CPU. For this reason, the latter is seen as a place where we can make cutbacks while still retaining a standard of performance.

For our purposes, this Intel Core i5 will be more than sufficient. It comes with an unlocked multiplier, meaning that we'll be able to overclock it without placing too much of a strain on our motherboard and RAM – thereby achieving more frames for our money. It matches the LGA 1151 socket of our motherboard.

RAM

Where RAM is concerned, we'll want at least 16GB in order to truly futureproof our machine. But if you're really budget-conscious, you might consider going as low as 8GB, and then add another two sticks of matching RAM further down the line. Again, DDR4 like this from Corsair will form a perfect match for our motherboard.

Solid-state drive

Thus far we've put together almost all of the components we need to get a great gaming PC for a great price. But one upgrade which we recommend even for those at the lower end of the market is a solid-state drive. With the help of such a drive, you'll be able to experience lightning-quick loading times. If your budget can't extend to a single large SSD, then you might pair a smaller one with a large HDD for storage – or perhaps even a cloud-based solution. That way, you can keep essential items like Windows and a few games on the SSD. This 120GB offering from Kingston offers just such a solution.

PSU

Too often overlooked, a PC's power supply is a critical component in any gaming system – if the CPU is the 'brain' of the machine, then the PSU is the 'heart' and pairing an insufficient unit with power hungry components can prove catastrophic! While some power supplies may be tempting due to their low price tag, such units are only recommended for low-end, general use machines and not higher performance gaming oriented systems. But again, you don't have to break the bank, a decent bronze certified 500W or 600W unit such as these by Aerocool is perfect for most gaming PC's, providing stable and regulated power to the GPU, CPU, Motherboard and drives.

Everything else

In order to get your computer to work properly, you'll need a few other devices – most notably the, the case, optical drive and – naturally – your mouse and keyboard. In each of these areas, we can shave a few extra pounds off the final bill without compromising the machine.

You'll also need a monitor – a 1080p monitor is still perfectly serviceable, and will subtract hundreds of pounds from the final bill. What's more, since a 1080p monitor offers fewer pixels, it'll place a reduced load on your budget graphics card.

At this end of the market, there are a few luxuries which you simply won't benefit from. These might include expensive water/liquid cooling solutions, mechanical-action keyboards, and Blu-Ray drives.

With a little judicious shopping and research, it's possible to build a great gaming PC without having to re-mortgage your house. So why not take a look through the catalogue today?

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