Budget PC Parts

IDRO

For those who need a great PC without a Bajillion dollars.

GPU | <u>GTX 1070</u>

I picked the GTX 1070 because of its very competitive price-point, an awesome deal at, as of making this, \$140 used. This graphics card is a great choice, especially for people who want a great gaming experience and still have all of their internal organs. "But what about RTX?!" Let's be honest, ray tracing is just-overkill. Most game titles already have very believable shadows, without the need of ray tracing. Video **IHEREI** discusses this further.



Why Micro ATX?

Micro ATX is a form factor for computers, relatively smaller than ATX. Having a smaller case is nice because you can fit it in smaller places, and more importantly, they have a much better price and value. I would recommend a case, but there are just too many great options. Look for company names such as Fractal Design, MSI, Cooler Master, NZXT, etc.





Motherboard | <u>Micro ATX</u> <u>B550</u>

This motherboard, specially made for AMD systems. My choice is most definitely biased; however, AMD's prices are usually better than Intel's; furthermore, AMD is definitely more environment friendly. Out of every component, the PSU is the last one that you want to cheap out on.

CPU | <u>Ryzen 3 4100</u>/ <u>Ryzen 5 4500</u>

The Ryzen 3 4100 is unbeatable for the value it packs at \$100. The Ryzen 3 and Ryzen 5 are both amazing options, better yet, they both go on sale for \$60-\$80 constantly because of their lack of recognition, all you need to do is have a bit of patience.



DDR4 | <u>16GB</u> VS. <u>32GB</u>

With this setup in mind, you'd likely want 16GB of 3,000-3,600mhz ram. The "mhz" refers to the speed in megahertz; however, anything over 3,000mhz isn't going to be much of an improvement (and the price escalates quickly). With the demand of games and other programs only rising, it might be better to spend an extra \$20 on the 32GB's for future titles or workstations. This video [HERE] explains this debate further.



Hard Disk Drives VS. Solid State Drives

With the prices of solid state drives ever so low, I think that it's finally time to upgrade! I found this insane deal **HERE** and it blew me away. 500 gigabyte SSD, better yet, it's even PCIE (peripheral component interconnect express) generation 4! The jump from generation 3 to 4 is almost double the speed. PCIE gen 4 (for short) which can move information at 7,000 megabytes per second. If you do find a better deal on a Hard Drive, then do not fret because all you're really missing out on are some faster loading times.



Power Supply (PSU)

With the help of <u>PCPARTPICKER</u>, you can estimate how much power you will need for your system. If you're as crazy as I am, then you might try something... a little techy. With the right amount of undervolting, a process where you feed your components less power, and the right amount of overclocking, a process where you speed up the clock speed of your components, you can achieve better than out-of-the-box performance at a lower than out-of-the-box wattage. Please don't try this without the right knowledge and experience.



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With these parts, you can make a great computer that can tank just about anything that you throw at it, except maybe a brick. This build all together, albeit with some patience, can cost you just shy of \$500 with the addition of a case (\$70). Your results may vary from mine, but this will hopefully give you a better understanding of how to build a PC on a budget. If you have questions or want to learn more, then you can always come ask me, or better yet, Mrs. LaMarche (S2). Thank you.

