**New computers for Broke students**

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As the winter term fees are being posted on quest, we all notice our bank accounts shrinking dramatically. Dreams of having the best gaming computer on your floor seem to be vanishing. Be aware that UW students are able to exercise unique advantages which can save them triple-digits on a new computer. Simply build it yourself! I’ll provide you with the key information you’ll need to get started.

If you’re not scared of trying new things and opening up a computer for the first time, you’ll find that building a computer is relatively easy. 2nd year ECE student Owen Yeh said, “It costed me 40 percent less to build my computer than it would if I had bought it outright.” Building is a great idea for several reasons; the cost of the parts needed to build a computer is much lower than the price of an equivalent pre-manufactured computer; UW students get Windows 7 or 8 for FREE, further lowering the cost (Check out ‘UW IST- Software for students’); you get complete customization control; it’s simple, if you can solve a jigsaw puzzle, you can build a computer.

The cheapest desktop computer I could find on the Dell website costs a whopping $500. A quick parts lookup showed that someone could build a similar computer for only $300. That means an extra $200 in your pocket which any student can appreciate.

If you’ve gotten this far, I have definitely caught your attention. Now let me do it again. Building a computer is EASY! You need as few as six pieces to build a computer; the hard drive (and/or SSD if you have the money), motherboard, RAM, CPU, Computer case (AKA chassis), and Power supply. I’ll explain what you may want to consider when picking each component, and I’ll go into how to expand a cheap barebones computer into an awe-worthy gaming marvel (if budget allows). There is a wide range of prices for each part, so first set out your budget before looking for your parts.

The first component you should look for is the motherboard, the foundation of your computer. Key things to watch out for are the different motherboard sizes, important for fitting into the chassis (typically the size is - ATX); the RAM slots, determines the number of RAM sticks that can be installed(typically 4 of them); and the CPU slot, determines which type of CPU you can install (typically LGA 1150 for Intel chips). The motherboard will also determine things such as number of USB ports and HDMI ports, so read over the specifications and choose as to your preference.

The next component is the CPU. This part determines how powerful your computer is. The clock speed (ex. 2.7 GHz) is a good indicator of performance. The two main CPU manufacturers are AMD and Intel. In a nutshell AMD is cheaper, Intel has a better reputation. Their performance difference is negligible for the average user. Take your pick and make sure it is compatible with your motherboard.

Next up you will need to select the RAM, Hard Drive, Power supply, Chassis. The more RAM the better. Decide how much you’d like, (8GB is a good amount) then pick out the best $/GB value you can find. Pick a hard drive that’s large enough to store all your movies. Ensure your power supplies wattage exceeds the requirements of all your components. Finally, the chassis will house your computer; pick a cheap one, or an awesome looking one. Up to you!

Two more parts that demanding computer users will probably want are a graphics card and cooling system. These serve to enhance the gaming experience by enabling your computer to generate additional power. The costs of these two components alone will range from $20 - $1000 so I would only recommend getting these if you are prepared to do some research.

My pick for cheapest stores to source the parts from are TigerDirect, Canada Computers, and NCIX.

Now that you have all your parts, connect the motherboard to your chassis, connect all your components into their designated motherboard slots and voila. Your computer is built. The only thing left is to download windows for free from the IST website and compute away. Should you get stuck on any part, no worries, there are thousands of step by step guides online to walk you through it.

Putting together a computer is a fun, mentally challenging and brag-worthy experience. Don’t let money constraints keep you from getting your hands on that perfectly customized computer. Build!

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