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Team: The Last Three  
IntroCS pd6  
Lab1 -- On Wednesdays We Wear Pink  
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List: <https://pcpartpicker.com/list/hyLZHB>

## 00. Architect

<http://www.designmaster.biz/support/autocad-system-requiremen.html>

AutoCAD 2020

Operating System: Microsoft Windows 10 (64-bit only), 8.1 (64-bit only), or 7 SP1 (64-bit only)

Processor: 2.5 GHz (3+ GHz recommended)


Memory: 8 GB (16GB recommended)




Disk space: 6.0 GB




Display: 1920 x 1080 resolution with True Color




**Pitch: Using less than half of your \$3000 budget, we built a computer that would work well for your projects in AutoCAD 2020. With its stats, it will also run AutoCAD 2021 as well if you choose to switch.**



Total Expenditure: \$1442.36

Product	Name	Picture	Price	Reasoning	Specifics
<b>CPU</b> -This will instruct the computer what to do	AMD Ryzen 7 2700X 3.7 GHz 8-Core Processor		\$266.51	→ This includes a CPU cooler, so it isn't necessary to spend more money on a separate cooler. → The price is decent compared to all other CPU products, and its rating is 5 stars.	Core Clock: 3.7 GHz Boost Clock: 4.3 GHz Core Count: 8 TDP: 105 W Includes CPU Cooler: Yes Simultaneous Multithreading: Yes

<b>Motherboard</b> -This will help establish connection between all components attached to the computer	MSI B450 TOMAHAWK MAX ATX AM4 Motherboard		\$114.99	→ The reason we chose this motherboard over all the other choices was that the price was cheaper with a higher rating. For that reason, we thought this was the best option for the PC.	Memory Slots: 4 CrossFire Capable RAID Support: Yes
<b>Power Supply</b> -This will supply/convert the appropriate power needed for the computer	Corsair RM (2019) 750 W 80+ Gold Certified Fully Modular ATX Power Supply		\$124.99	→ It's important for a system to have enough power to be able to support and run the systems required. → PartPicker estimates 394W will be used by our system and this has 750W, more than enough for the system.	Efficiency Rating: 80+ Gold Wattage: 750 W Modular: Full EPS Connectors: 2 SATA Connectors: 10
<b>Optical Drive</b> -A disc drive that allows computer users to access use DVDs, CDs, and Blu-rays.	Pioneer BDR-209DBK Blu-Ray/DVD/CD Writer		\$70.95	→ This is the cheapest optical drive with high ratings that we could find.	Form Factor: 5.25" Blu-Ray/DVD/CD Writer

<b>Memory/RAM</b> -This will store everything that will run on the PC	Corsair Vengeance LPX 16 GB (2 x 8 GB) DDR4-3000 Memory		\$79.99	→ Since AutoCAD 2020 recommends 16 GB of RAM, this moderately-priced yet highly-rated RAM product will work well for the architect's needs. → It is also at the fastest RAM speed	Speed: DDR4-3000 CAS Latency: 15 Voltage: 1.35 V Timing: 15-17-17-35 Heat Spreader: Yes
<b>Storage</b> -This will store all digital content	Western Digital Caviar Blue 1 TB 3.5" 7200RPM Internal Hard Drive		\$43.99	→ For an architect, it is expected that lots of files would need to be saved, thus our reason for choosing a hard drive with a lot of capacity. → This internal hard drive additionally, covers the 6.0 GB of disk space necessary for AutoCAD 2020.	Capacity: 1 TB Cache: 64 MB Form Factor: 3.5" Interface: SATA 6 Gb/s
<b>Video Card</b> -A video card, otherwise known as the graphics card, is connected to the motherboard and allows for images to be displayed on the monitor.	MSI Radeon RX 580 8 GB ARMOR OC Video Card		\$199.99 -\$35.00	→ We chose this video card/graphics card in because the motherboard we chose did not come with an integrated graphics card.	Memory: 8 GB Memory Type: GDDR5 Core Clock: 1257 MHz Boost Clock: 1366 MHz Effective Memory Clock: 8000 MHz Interface: PCIe x16 Length: 269 mm TDP: 185 W DisplayPort: 2

					HDMI: 2
<b>Case</b> -This protects everything that is inside	Corsair Air 540 ATX Mid Tower Case		\$148.99	→ This case has a lot of space available which can allow for extra wires or accessories if needed.	Full-Height Expansion Slots: 8 External 5.25" Bays: 2 Internal 2.5" Bays: 4 Internal 3.5" Bays: 2 Maximum Video Card Length: 320 mm / 12.598"
<b>Operating System</b> -This will establish a user interface so you can actually use it with a mouse and a keyboard	Microsoft Windows 10 Home OEM 64-bit		\$109.99	→ This is the standard user interface. → It is what AutoCad 2020 requires as well.	Mode: 64-bit Maximum Supported Memory: 128 GB
<b>Wired Network Adaptor</b> -This is ethernet and will use wires & cables to connect to a local network.	TP-Link TG-3468 PCIe x1 1000 Mbit/s Network Adapter		\$14.99	→ We use a wired network adapter instead of wireless one because our motherboard only supports wired network adapters. → Also, by having a wired network adapter, the connection is faster than wireless - the hardware is all in	Interface: PCIe x1 Ports: 1000 Mbit/s Auto-Negotiation and Auto MDI/MDIX Supports power down/link down power saving DOS/Win98SE/Me/2000/XP/Vista/Linux/No

				one place.	vell Netware
<b>Monitor/Display</b> -This will allow you to view and access the user interface your operating system provides	Asus VG248QE 24.0" 1920x1080 144 Hz Monitor		\$249.99	→ We chose this monitor to satisfy the requirements for AutoCAD 2020: a 1920x1080 resolution with true color. → The monitor has 16700000 display colors, which is very close to all known possibilities of color (16,777,216).	Screen Size: 24" Resolution: 1920 x 1080 Refresh Rate: 144 Hz Response Time (G2G): 1 ms Aspect Ratio: 16:9 Interface: HDMI, DVI-D Dual-Link, DisplayPort Built-in Speakers: Yes Contrast Ratio: 80,000,000:1 Display Colors: 16700000 DisplayPort: 1 HDMI: 1
<b>Keyboard</b> -This will allow you to type	Logitech MK550 Wireless Ergonomic Keyboard With Laser Mouse		\$51.99	→ An ergonomic keyboard reduces stress/strain on your body as you type, and prevent injuries that can come with typing, which is helpful for someone who sits at a computer for a profession. -Since this comes with a mouse,	-Style: Ergonomic -Connection Type: Wireless -Mouse Included -Mouse Hand Orientation: Right -Cushioned palm rest for exceptional typing

				<p>you don't have to pay for an additional one.</p> <ul style="list-style-type: none"><li>-The mouse can work with Windows-based PCs, which fits our Windows 10 operating system.</li></ul>	<p>comfort</p> <ul style="list-style-type: none"><li>-Contoured laser mouse with rubber grips gives you smooth, precise cursor control</li><li>-Virtually no battery changes—up to three years of battery life for the keyboard and two years for the mouse</li><li>-Powerful 2.4 GHz</li><li>-wireless connection with one tiny Unifying receiver</li><li>-Works with Windows-based PCs</li></ul>
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