

Slackers

James Trachuk, Felix Bransbourg, and Thomas Yu

IntroCS Pd6



Lab1 -- On Wednesdays We Wear Pink




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Hikaru's PC Build






Purpose: To be able to seamlessly run Microsoft Flight Simulator 2020.

Budget: \$3,000

Component	Name & Cost	Image	Function
CPU	AMD Ryzen 9 3900X 3.8 GHz 12-Core Processor \$434.00		<p>The CPU receives data, decodes the data into instructions, and then executes the instructions. These instructions include basic arithmetic, moving data around in the memory, and comparing numbers together.</p> <p>This AMD CPU has 12 cores allowing for more tasks to be run at the same time. In addition to the amount of cores is the fast speed with a core clock of 3.8 GHz and a boost speed of 4.6 GHz. In addition to its use, this CPU also comes with a cooler, meaning Hikaru doesn't need to spend extra money on one.</p>
Motherboard	Asus ROG Strix X570-E Gaming ATX AM4 Motherboard \$299.99		<p>The motherboard is the circuit board that connects all the components of the computer.</p> <p>This Asus Rog Strix motherboard has the newest chipset as well as many ports, allowing you to connect all your components as well as future proof.</p>

RAM	<p>G.Skill Ripjaws V 32 GB DDR4-3600 Memory (2 x 16)</p> <p>\$159.99</p>		<p>RAM (Random Access Memory) is the main memory of the computer that is used when it is active.</p> <p>These two sticks that each contain 16 GB RAM allows for not only Microsoft Flight Simulator 2020 to run, but also many other programs at the same time. While this computer is designed specifically for Microsoft Flight Simulator 2020, 32 GB of RAM allows Hikaru to do other work alongside it.</p>
GPU	<p>Gigabyte GeForce RTX 2080 Ti 11 GB WINDFORCE Video Card</p> <p>\$1099.99</p>		<p>The graphics card processes and renders the images that appear on the screen.</p> <p>Since Flight Simulator is such a beautiful game, Hikaru would want to play it at a high resolution, so a fast graphics card like the 2080TI would be able to run all those extra pixels fast enough to prevent lag, giving her a smooth, realistic flight experience.</p>
Storage	<p>Crucial P1 1 TB M.2-2280 NVME SSD</p> <p>\$109.99</p>		<p>Solid State Drives and Hard Disk Drives are the main storage components. Unlike RAM the memory they contain is permanent. However, SSDs retrieve data at a faster speed compared to HDD.</p> <p>Since Microsoft Flight Simulator 2020 has yet to come out, it is obscure how much storage it will take up. It is said that the world of MSFS2020 is 2 petabytes (2 million GB), most of it will probably exist as either downloadable content or on the cloud. In the case that it exists as downloadable content, this 1 TB SSD is a safe choice for allowing Hikaru to get a large amount of the world at once.</p>

Power Supply	EVGA 850 W 80+ Gold Certified Semi-modular ATX Power Supply \$149.99		<p>The power supply provides power to the other components of the computer by converting AC (alternating current) to DC (direct current).</p> <p>This EVGA 850 W power supply will ensure that there is enough power to support more than the computer will normally require. This is in case Hikaru would ever need to use more power (overclocking), but it should not be needed.</p>
Case Fans	Corsair AF120 LED (2018) Red 3-Pack 52 CFM 120 mm Fans \$39.99		<p>Case fans maintain proper air flow within the case.</p> <p>We chose case fans instead of water cooling. This is because it is cheaper and making mistakes isn't as devastating. This allows Hikaru to focus more on MSFS2020 rather than constantly checking on the water cooling.</p>
Case	NZXT H510 ATX Mid Tower Case \$69.99		<p>The case is where all the components of the computer go. It keeps them in place as well as protecting them from dust and other small particles.</p> <p>This case allows Hikaru to have an easier build process as well as an easier cable routing experience.</p>
Operating System	Windows 10 home OEM 64-bit \$109.99		<p>Windows is the only OS that can run MSFS2020, and since Hikaru is a law-abiding citizen, she should purchase it legally instead of pirating it from some shady site. The alternative to this OS would be Windows 10 Pro, but that just gives a bit more data security, which is unnecessary for someone who uses their PC for gaming.</p>

Network	Ethernet		<p>Ethernet is a wired networking that connects your computer to the internet.</p> <p>The motherboard that we chose comes with onboard ethernet at a speed of 2.5 Gbit/s allowing for a fast connection between the computer and the internet.</p>
Monitor	<p>Sceptre C305B-200UN 30.0" 2560x1080 200Hz Monitor</p> <p>\$284.98</p>		<p>This displays high resolution will allow for Flight Simulator to have higher quality images, making the game look and feel more realistic, and the high refresh rate allows it to keep up with the speed of the graphics card, preventing any lag and letting the game run smoothly.</p>
Keyboard	<p>Razer Cynosa Chroma Wired Gaming Keyboard</p> <p>\$44.99</p>		<p>In addition to being very comfortable to use and type with, this keyboard's customizable and varied color capabilities will remind Hikaru of all the brightly colored lights in an actual airplane cockpit.</p>
Mouse	<p>Logitech G502 HERO Optical Mouse</p> <p>\$46.99</p>		<p>This mouse is very good for a game like Flight Simulator, having high dots-per-inch capabilities, as well as programmable buttons, making it easier to use the computer and play games.</p>
Speakers	<p>Logitech Z213 7 W 2.1 Channel Speakers</p> <p>\$28.99</p>		<p>These speakers allow for Hikaru to hear the sounds within MSFS2020 for a great deal.</p>

Total Cost: \$2879.87