

The top half of the image features an abstract background composed of various shades of teal and cyan. These colors are arranged in a complex, overlapping pattern of geometric shapes, primarily triangles and polygons, which create a sense of depth and movement. The shapes are layered, with some appearing more prominent than others, giving the background a three-dimensional, crystalline appearance.

Ignite Project – Building a PC

By Xander D

Influence and why I chose this project

One of the main and real reasons why I decided to choose PC building as my topic was because of my Dad. When my dad was my age he used to build laptops and then sell them as his first business. At first it was just a hobby and a way to make quick cash, but eventually it became by dad's first true business. My dad had reached the point where he would be staying up close to 3:00am building PC's and finishing off order from a multitude of customers. My dad's tactic was simple yet effective. All he would do is buy parts for a PC, build the PC, then sell the PC for more money. He was able to do this for quite a long amount of time but eventually stopped and tried out something new. Every since knowing about what my dad had done I had always been interested in the topic, and had always wished to do what he did. I would always sit at home and watch YouTube videos on computers and how they were made, but it was only recently where I gained the opportunity to build one for myself and for fill a goal off my bucket list. After my dad became aware of IGNITE he instantly jumped at the opportunity to help me, he had always known how interested I was so it wasn't a surprise to him that this was my project.

<u>Items</u>	<u>Bought</u> ▼	<u>Type</u>	<u>Link</u>	<u>Prices</u>
Intel Core i5-10600K 4.1 GHz	Y	CPU	https://bit.ly/3jhaCu2	\$339
Noctua NH-U12S chromax.black 55 CFM	Y	CPU Cooler	https://bit.ly/3lW0MiH	\$141
Asus PRIME Z490-A ATX LGA 1200	Y	Motherboard	https://bit.ly/3piaCxn	\$329
Corsair Vengeance RGB Pro 16 GB	Y	Memory	https://amzn.to/3lRzV7r	\$235
Samsung 970 Evo 1 TB M.2-2280 NVME	Y	SSD	https://bit.ly/3vslppM	\$179
BitFenix Nova Mesh TG 4ARGB ATX	Y	PC Case	https://bit.ly/3vqpgUy	\$95
Asus GeForce RTX 2060 Super 8 GB	Y	GPU	https://bit.ly/3BWKewM	\$929
Corsair CXM 650 W 80 + Bronze	Y	Power Suply	https://bit.ly/3aSgJ35	\$119

Part 1 of the project – Locating the Parts

Part 2 of the project – Shipping

July 16th Reflection

After quite a while of planning and a lot of waiting I finally scheduled a time to buy the parts I needed with my Dad. Today we went online and bought all parts I had chosen from. It took a decent amount of time to get to this stage of the project mostly due to the cost of each of the parts. I really wanted to make sure I was spending money effectively and not buying a part which would perform worse or last a small amount of time. So before purchasing the parts today I had spent numerous days compiling all the best parts in contrast to the cheapest. In the end I found all the parts I was looking for and I believe I have made a smart decision.

Part 3 of the project - Delivery

○August 23rd Reflection

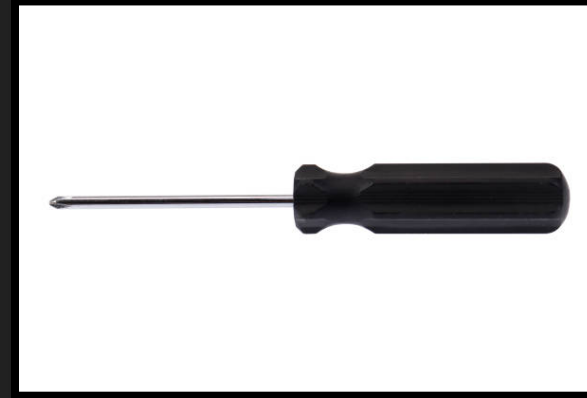
○The parts I have purchased have finally arrived and I can finally begin to build my PC and finish my project. Leading up this day I have create spread sheets containing the parts I was buying as well as the cost of them. I would've been able to finish this project a lot earlier but unfortunately because of COVID-19 the delivery time was much longer then expected, and all the parts came at different times. Seeing that the case had come last it was practically impossible to get a start on building the PC seeing I would have no place to put the parts.



Part 4 of the project - Equipment

Equipment needed for building a PC:

- Phillips head Screwdriver
- Flat head Screwdriver
- Zip Ties
- Scissors
- Torch (Form of Light to get into tight spaces)
- Thermal Paste



Part 5 of the project – Tutorial

Here are some links to help guide you build your PC:

<https://www.youtube.com/watch?v=IhX0fOUYd8Q>

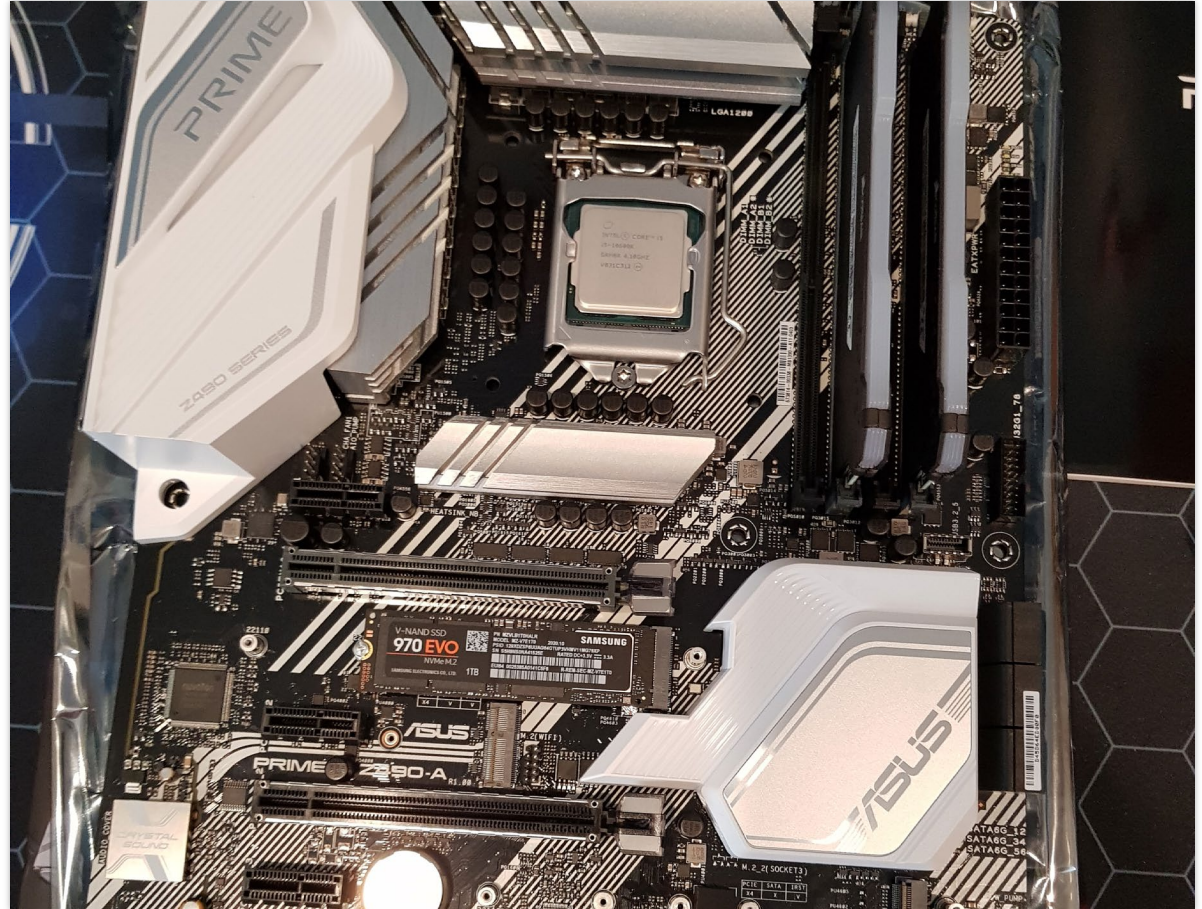
<https://www.youtube.com/watch?v=PXaLc9AYlcg>

<https://www.youtube.com/watch?v=E9-x3jRSQvQ>

<https://www.youtube.com/watch?v=gO-V8E9MIBg>

<https://www.youtube.com/watch?v=sLWXvNbJMpW>

<https://www.youtube.com/watch?v=FCDw7zopnDg>



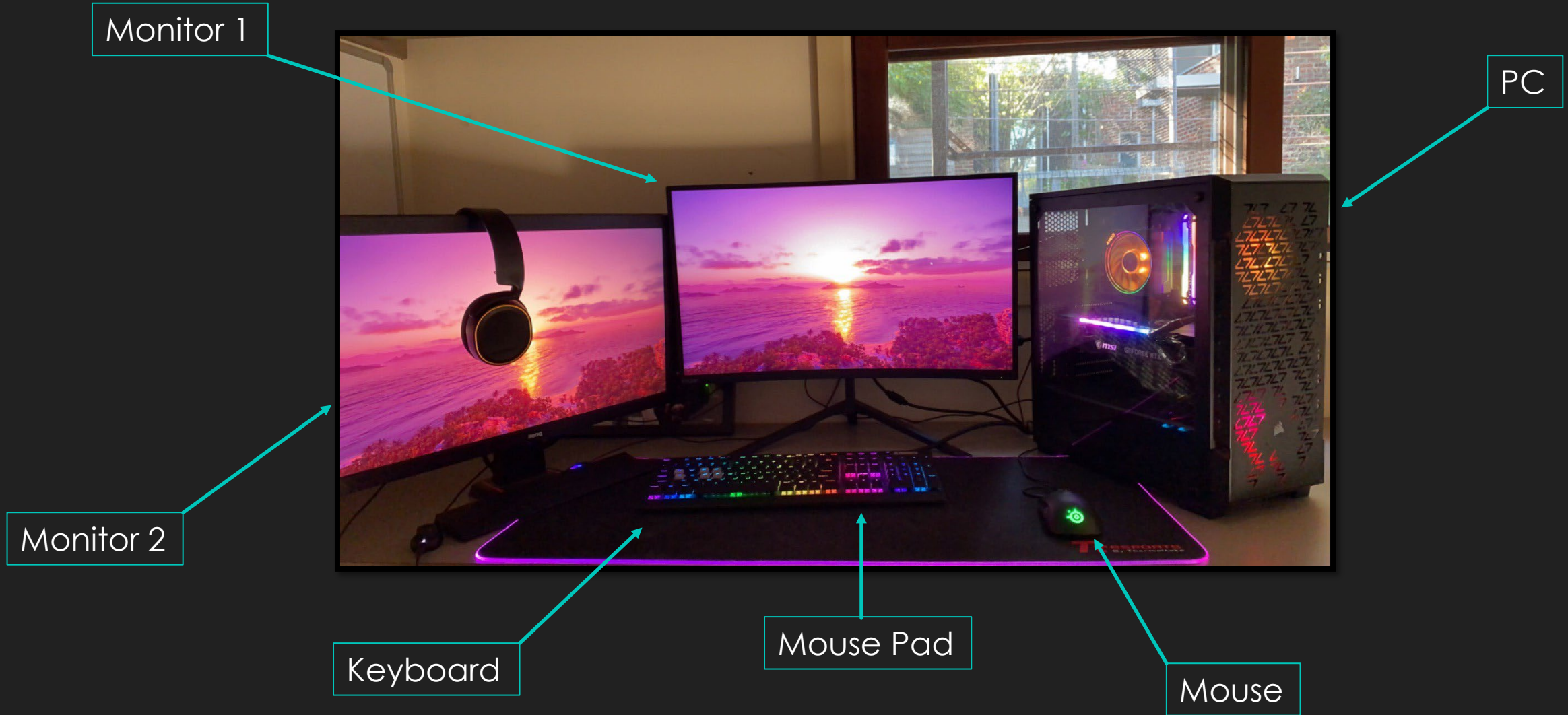
Motherboard

Part 6 of the project – Finished Product

○ September 1st Reflection

- I have finally completed my project and have successfully built my very own PC. It was about time I had finished this project but through all the setbacks I finally completed it. Earlier today I finally took the finals steps in this project and begun building the PC with my dad. We faced multiple challenges (on next slide) which would set us back a couple minutes and even an hour or 2, but eventually we solved them and pulled through. I expected the building phase of this project to be a lot easier than I expected seeing I had the help from my dad who had built PC's and computers of his own when he was my age, and had started a business building them, but unfortunately due to computer parts constantly evolving and getting better and better it was unfamiliar territory for my dad. So, in reality my dad and I had about the same idea on what we were doing.

Part 7 of the project - Final Product



Part 8 of the project - Challenges & how we solved them

○ COVID-19 Shipping

Unlike other issues, COVID-19 was out of my hands, and I had no solution to this problem other than waiting. Due to COVID-19 all the parts I had purchased were delayed and with the parts being delayed, the whole project was delayed.

○ CPU & CPU cooler

When attaching the CPU to the CPU cooler both my dad and I experienced a problem where the 2 parts wouldn't connect like they supposed to. In the end we ended up looking at a couple of YouTube videos and eventually we figured it out. Another problem with this though was that we had to purchase more thermal paste which took a lot longer then expected.



EXTRA ADDITIONS to complete your PC set up

- Extra additions to complete your PC setup:
- Keyboard
- Mouse
- Monitor/s
- Mouse Pad

Reflection on Results 1/2

- Now coming to the end of this project, I've completed my goals and successfully built a PC. Although I faced numerous problems and difficulties a long the way in the end I finished my build, and I couldn't be happier with the way it turned out. I feel very fulfilled after completing my project and I'm very proud of what I was able to accomplish during lockdown.



Reflection on Results 2/2

- **What have you learnt about yourself during this process?**

After completing this project, I learnt that if I ever have a dream or a passion, it is always possible for me to pursue it and make it a reality.

- **If you were offered this program again, what would you do differently and why?**

Well hopefully the second time round I wouldn't have to deal with the effects of lockdown and the poor shipping, but if I could do something different, I would start my work earlier to make sure I'm more prepared throughout the project.

- **What have you learnt, that could be can transferred/ used in other subjects?**

Something I have learnt throughout this opportunity has been that any amount of work, still counts. Even if I only do a reflection one day, it will still hugely benefit me in the end when putting the project together.

- **How did being off campus for lock downs effect your Ignite project?**

Being off campus gave me a lot more time to work on my project, and in a completely different environment. I believe it gave a positive effect on my work ethic.

