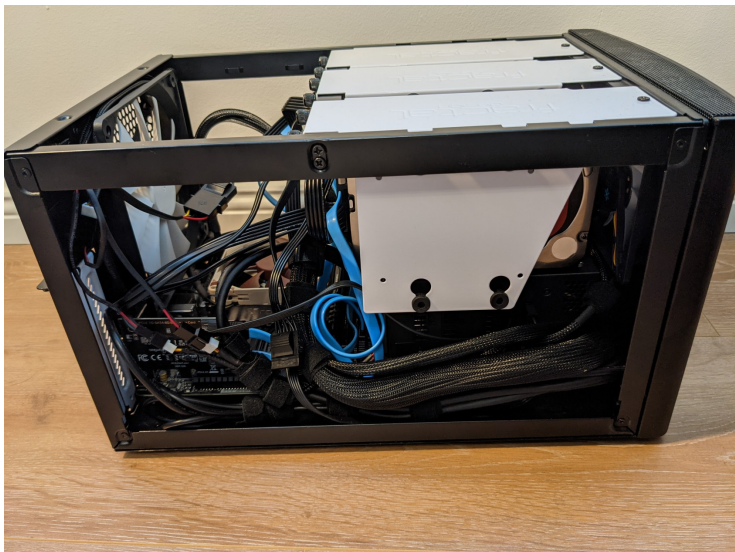
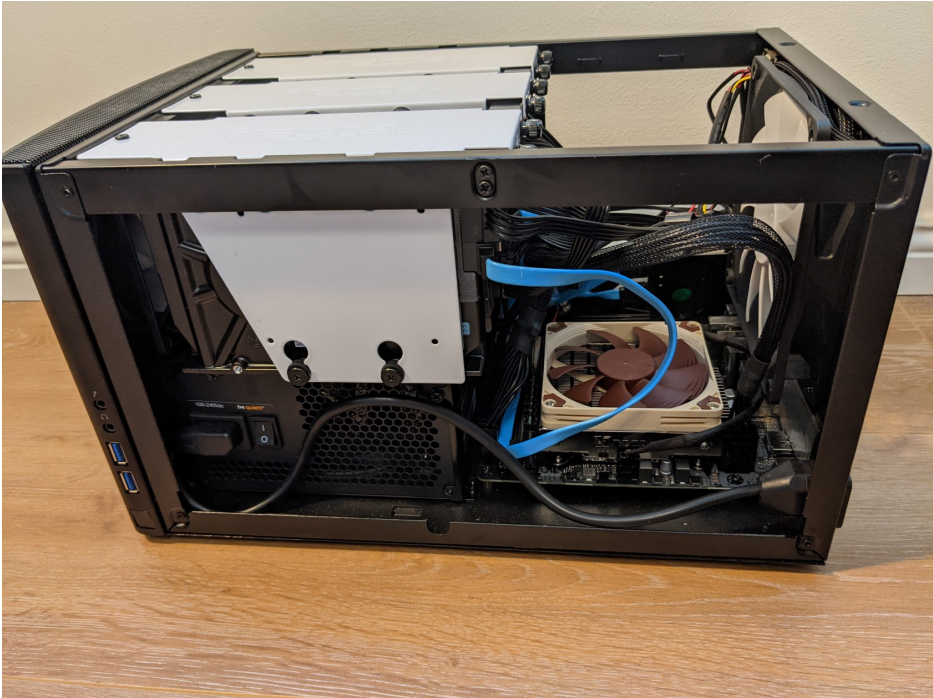


# Hardware

## NAS

### Images





## Components

Component	Model
CPU	<a href="#">Intel Core i3-10100 3.6 GHz Quad-Core</a>
CPU Cooler	<a href="#">Noctua NH-L9i</a>
Mainboard	<a href="#">ASRock H510M-ITX/ac Mini ITX LGA1200</a>
Memory	<a href="#">Crucial RAM CT8G4DFRA266 8GB DDR4 2666 MHz CL19</a>

Case	<a href="#">Fractal Design Node 304 Mini ITX Tower</a>
Power Supply	be quiet! Pure Power 11 CM 400W (80+ Gold Certified Semi-modular ATX)
Extension Card	<a href="#">BEYIMEI PCI Express to 2 Port SATA III 6Gbps</a>
Drives	<ul style="list-style-type: none"> <li>• <a href="#">Transcend 120GB SSD SATA III 6Gb/s MTS820S</a></li> <li>• WD Red 6TB 3.5" 5400 RPM (WD60EFRX)</li> <li>• WD Red 6TB 3.5" 5400 RPM (WD60EFRX)</li> <li>• WD Red 8TB 3.5" 5400 RPM (WD80EFAX)</li> <li>• WD Red 8TB 3.5" 5400 RPM (WD80EFAX)</li> <li>• Seagate IronWolf 8TB 3.5" 7200 RPM (ST8000VN004)</li> <li>• Seagate IronWolf 8TB 3.5" 7200 RPM (ST8000VN004)</li> </ul>

## Notes

- At first I bought the Intel Core i3-10100F CPU (F => no integrated GPU), because it did only cost half of what the version with GPU costs and to minimize the power usage of the CPU (why should I need a GPU on a NAS anyway). I wasn't aware that I couldn't even get into the mainboards BIOS/UEFI without GPU, so that did not work.
- The mainboard only has 4x SATA III interfaces but the case supports 6x 3.5" drives, this is why I needed the PCI-E extension card (I found no cheap mini ITX mainboard with 6x SATA interfaces)
- I opted for the (more expensive) gold certified PSU so that I can utilize as much of the drawn power as possible to save energy and cost
- I currently use only one memory module. I plan to upgrade this to two memory modules in the future, so I can utilize dual channel RAM for a bit of performance gain and be more safer in case one module dies.

# Backup

## Components

Component	Model
Hard Drive Enclosure	Xystec 4-Bay Hard Drive Enclosure, USB 3.0 or eSATA
Drives	<ul style="list-style-type: none"> <li>• Seagate Barracuda 5TB 3.5" (ST500DM003)</li> <li>• Toshiba 6TB 3.5" (MD04ACA600)</li> <li>• Seagate Barracuda 8TB 3.5" (ST800DM004)</li> <li>• WD 10TB 3.5" (WD1EMAZ)</li> </ul>

# Notes

- I used the USB hard drive enclosure in combination with a Raspberry Pie as my old NAS. Now that I have build my new NAS I did no longer have a usage for it.
- All backup drives are from shucked external drives which I used as backup drives in my old setup. I decided it was more practical to combine the external drives into one enclosure instead of having them separate.

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