



These are my recommendations for building a computer with the intention of using it for more than 5 years. This is an **advanced topic** and I highly recommend consulting with a technologist in the process of planning and building a computer this way!

What to look for

Building for the future means predicting what the technology landscape might look like in 10 years from now. This is a field of study all on its own, but here are some thoughts.

- You'll need to be able to upgrade to at least 64gb of RAM. Make sure you find a board that supports a standard type of RAM that you'll be able to buy in the future.
- Storage capacity is always upgradable. Worry more about the storage bus and the upgradability of your storage. It looks like the M.2 form factor is going to be a mainstay for a while, so it might be worth finding a board that has an M.2 slot.
- A good array of PCIe slots is important. New SSD storage options are available for PCIe, and your graphics card upgrades will use them too. Make sure you find a board with PCIe 4.0 slots, which will give you better speeds and throughput, which will really help in the future.
- Processing is less important now than it was in the past, but depending on what happens in web technology, with the advent of virtual reality and augmented reality, it's possible that you'll want some horsepower in 10 years from now. Since it's hard to say what's going to happen here, the best advice I can offer is to be the most careful about the slot type that you select. Your board selection options will depend on the slot type, so this is an integral part of your planning. If you decide to upgrade the processor in 5 years or so, having the right slot type will save the day, and your machine.

Brands

You have two directions you can go: carefully select a prebuilt manufacturer device, or start from scratch and select exactly the components you believe will work best for the long haul. Your technologist can help you weight the benefits of each direction.

- Apple (MacOS)

The new Mac Pro would be a very viable option for a long-living desktop. They have a reputation for standing the test of time, and usually have the performance to handle what ever you want to throw at them.

The big caveat with Apple is that it's impossible to say how long they will support a given device with security updates. It may reach their "end of life" date before you were ready to give it up.

- System76 (Linux)

If Linux is an option for you, I highly recommend you give System76 a look. They build cutting edge computers, so much of the work of finding the best hardware is already done for you. Like Apple, they offer both laptops and desktops, and they build their hardware to work with Linux, which makes for a cohesive system.