VEX CAD Challenge VEXnet holder

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If a team designs a robot with a compact design, the cortex may be buried, or it may be nearly impossible to fit the VEXnet into the port. That's why I designed the VEXnet holder. A third party usb extension can go from the cortex to the VEXnet, mounted using the holder. The cortex can be mounted almost anywhere, but the considerably smaller VEXNET can be made easily accessible.

With frequent attaching and detaching of the VEXnet, the robot must be built so this port is accessible. With smaller or more compact designs, this becomes tough. The VEXnet can now be easily removed to access the usb port, and the cortex itself can be not as easy to get to.

Designing the part was tough. I knew I wanted it to have the same base as the battery holder, so replicating this design was a challenge. I used the subtractive method, creating the part as if it was hewn from wood or metal. With a dial caliper, I made the part snugly hold the VEXnet. So when the VEXnet is removed, just hold the connector, and slide the VEXnet out. It is .488 inches tall, 2.48 inches wide, and .5 inches long. Created using Autodesk Inventor version 2017.

I learned how tough it can be to replicate things exactly with CAD, but with practice, it should become easier. I would definitely use CAD in the future for designing anything. It's a good challenge, and each time I use Autodesk, I learn something new. I don’t think I’ll use CAD in my career path, but at least I know how to use it.