

# A Hex Drive Chuck, Version 1.0

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For light-duty work, it is handy to be able to drop a small drill chuck into a hex drive.



For many decades, I have repurposed a small drill chuck to be a pin vise. In fact, I had two of them. Now I have only one because the other has been repurposed *again*.

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The chuck has a 1/4-20 thread in the back. As the bolt mounted in the handle screws in, it pushes a disk which closes the jaws.



I have plenty of low-quality hex bits. For this application, the lower the better. I want to avoid any bit that is hardened.

I put my caliper on the 1/4-20 bolt and read an outside diameter of 0.24 inches. I then mounted the hex bit in my lathe and turned it down to this size. After running a die, I ended up with this part.



I now have the hex drive chuck I needed without leaving my home<sup>2</sup> or paying anything.

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<sup>2</sup> We are in the middle of the COVID-19 pandemic so avoiding people is a very high priority.

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