

## Customizable Pin Vise Collet Set for Harbor Freight Micro Drill Set



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### Summary

A pin vise collet set for the Harbor Freight 30pc Micro Drill Set (0.5mm to 3.0mm)

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Tags: [pin](#) [drill](#) [customizable](#) [openscad](#) [vise](#) [handtools](#)  
[drillbit](#)

This is an improved version of [my earlier model](#) with a better base and adapting collet gap size. The gap is narrowed for drill bit sizes smaller than the gap.

My pin vise has ~6.0mm hexagonal fitment that helps prevent the collet from spinning. The original metal collet doesn't actually use this, so my original model didn't either. But for drill bits larger than 2.0mm, it helps a great deal in keeping bits clamped.

You could print these upright, but for strength (and speed of print!) they do better printed on their side. The hexagonal base is aligned to the slots so print them like shown in the photo with supports.

I printed these on a Prusa MINI+ with Hatchbox Dark Gray Matte PLA using the 0.10mm DETAIL preset with “supports on the build plate only”.

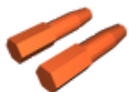
To customize, simply edit the list of drill bit sizes in the “collet\_set.scad” file. The default are all the sizes included in [this set of micro drill bits from Harbor Freight](#). There's nothing specific about this set - any drill bit will work if you add the correct measurement.

When importing the 3MF file, PrusaSlicer will correctly split the model because I am using the new (experimental) “lazy-union” feature and exporting to 3MF format in OpenSCAD. If you are using an older version of OpenSCAD and export your own customized version, you may need to use your slicer to split the result into separate models for placement on the build plate.

## Model files



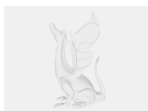
**collet\_set.3mf**



**collet\_set-my-print.3mf**



**collet\_set.scad**



**pin\_vise\_collet.scad**

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