



Filament Drive Gear Jig



LoboCNC

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Summary

This simple jig can be used for hobbing the teeth on a filament drive gear. Rather than the usual method of cutting...

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This simple jig can be used for hobbing the teeth on a filament drive gear. Rather than the usual method of cutting teeth with a tap, this jig helps you create a series of overlapping spot drills that result in sharp, deep teeth that grab securely and eject debris. It is scaled for use with 8mm dia. rod.

Watch it in use at: <https://youtu.be/E4LW0ZjslYc>

Print Settings

Printer Brand:

MakerGear

Printer:

M2

Rafts:

Doesn't Matter

Supports:

No

Resolution:

0.2mm

Infill:

20%

Notes:

It's best use 3 perimeters/shells to make it a little sturdier.

Post-Printing

Print out both the collet and holder piece. Screw the holder piece to a board (using two 8-32 screws, 1/2" spacing) that can be clamped to your drill press. Tap an 8-32 thread in the collet for a set screw.

To use, clamp the holder in place so that the drill bit is centered over the rod cradle in the holder. I used a 1/8" diameter mill-drill bit with a 90 deg. tip angle, but you can also use a center drill. Clamp your 8mm rod in place in the collet with the set screw and then set your drill stop so that you are only drilling about 0.5mm deep. Place the collet in the holder, aligning the nub on the holder with one of the indexing notches in the collet. Drill spot drill holes in all 16 positions. Reset the drill stop depth to 1mm and then re-drill all 16 positions.

Category: 3D Printer Parts

Model files

holder.stl



collet.stl

[Find source .stl files on Thingiverse.com](#)

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