



CNC Table Toothed Toe Clamp



mkoistinen

[VIEW IN BROWSER](#)

updated 26. 11. 2023 | published 26. 11. 2023

Summary

I needed some toe-clamps to secure stock to my CNC table, so I made my own.

[Hobby & Makers](#) > [Tools](#)

Tags: [cnc](#) [cncmachine](#) [cncrouter](#) [cncrouterparts](#) [toeclamp](#)
[toothedtoeclamp](#)

I needed more toe-clamps for my CNC table. The ones that came with it are injection molded using some variant of PA15-GF (Nylon with glass fibers). This is a good choice, but I still have some Prusament PC-CF. This is a stronger material than most PA15-GF according to the charts here: <https://help.prusa3d.com/materials>, which I hope will make up for the fact that FDM printed parts could be weaker along the layer lines than a similar injection-molded part.

This design incorporates some of the design goodness from the toe-clamps that came with the printer, but also include a toothed design on the foot (?) which will hopefully help it hold wood stock more securely.

My design includes changes in the height of the “toe” so that no matter which orientation the clamp is in, the screw holding it down will not be on the same layer as the toe (see the section analysis image for a better idea

of this. Note that the layer where the screw rests is 2.5mm higher than the toe's layer).

The cost of making these with Prusament PC-CF is NOT lower than the cost of buying the injection molded ones from a manufacturer, but, I can print these in ~1 hour if needed. Besides, this is a great starting point for more custom designs to address any project's needs as they arise.

Strongly recommended print settings:

- Prusament PC-CF
- 0.2mm layers
- 100% infill
- Organic supports to hold the bottom screw ledge up. The teeth do not need supports.
- Good adhesion on your build plate
- Draft shield or enclosure.

DISCLAIMER

The provided 3D printer design for toe-clamps ("Design") is made available for informational purposes only and is intended for use only as a personal project by individuals experienced in safely handling and operating 3D printers. The creator of the Design ("Creator") makes no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability, or availability with respect to the Design or the information, products, services, or related graphics contained on the Design for any purpose. Any reliance you place on such material is therefore strictly at your own risk.

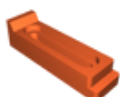
The Creator shall not be held responsible or liable, under any circumstances, for any direct or indirect damages including but not limited to personal injury, property damage, financial loss, data loss, or commercial loss that may occur as a result of the use or misuse of the Design. The user of the Design assumes all responsibility and risk for the use of this Design and agrees to indemnify and hold the Creator harmless from and against any claims, liabilities, demands, losses, damages, costs, and expenses, including attorney fees, arising out of or in connection with the user's use of the Design.

The use of the Design in a commercial setting or the reproduction, distribution, modification, or creation of derivative works based on the Design for commercial purposes is strictly prohibited unless expressly authorized by the Creator in writing. The user agrees not to use the Design for any unlawful purpose or in any way that could violate the rights of the Creator or third parties.

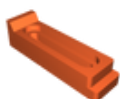
This disclaimer is governed by and construed in accordance with the laws of North Carolina, USA, and any disputes relating to this disclaimer will be subject to the exclusive jurisdiction of the courts of North Carolina, USA.

By using the Design, you acknowledge that you have read, understood, and agree to be bound by the terms of this disclaimer.

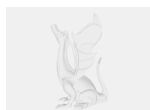
Model files



toothed-toe-clamp.3mf



toothed-toe-clamp.stl



toothed-toe-clamp.step

License ©

This work is licensed under a
[Creative Commons \(4.0 International License\)](#)



Attribution—Noncommercial—No Derivatives

- ✗ | Sharing without ATTRIBUTION
- ✗ | Remix Culture allowed
- ✗ | Commercial Use
- ✗ | Free Cultural Works
- ✗ | Meets Open Definition