

## 3 in 1 Tool - Filament & PTFE Cutter + Filament welding



Francisco Conceicao

[VIEW IN BROWSER](#)

updated 27. 7. 2022 | published 29. 6. 2022

### Summary

Filament & PTFE Cutter + Filament welding



3.00 hrs



5 pcs



0.15 mm



0.40 mm



PLA



22 g



Prusa MINI /  
MINI+

[3D Printers](#) > [3D Printers - Upgrades](#)

Tags: [upgrade](#) [prusa](#) [prusament](#) [3d](#) [tool](#) [mini](#) [print](#)  
[small](#) [filament](#) [blade](#) [support](#) [design](#) [diy](#) [cutter](#)  
[3dprinting](#) [cut](#) [easytoprint](#) [new](#) [ptfetube](#) [pla](#) [use](#)  
[petg](#) [ptfe](#) [tools](#) [carbon](#) [3dprinter](#) [printable](#)  
[filamentcutter](#) [collection](#) [utility](#) [welding](#) [handtools](#)  
[useful](#) [cutting](#) [3dprint](#) [3dprinterparts](#) [designproject](#)  
[prusamini](#) [share](#) [3ddesign](#) [asa](#) [specialneeds](#) [175mm](#)  
[collectable](#) [plaplus](#) [news](#) [good](#) [ecological](#) [ecologic](#)

3in1

ptfetubecutter

need

utilityblade

collectables

always

weldinger

diycutter

3dprintdesign

This is another 3-in-1 tool for 3D printing in the style of my model <https://www.printables.com/model/191102-spatula-3in1>.

With this model you can cut 1.75mm filament at 45° and 90°. You can also cut the PTFE tube at 90°, and you can even solder two ends of 1.75mm leftover filament to make use on small prints.

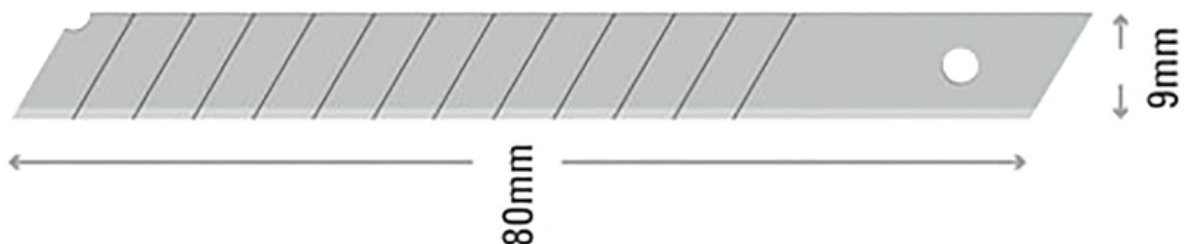
For joining the parts I used 5 M3x8 and 1 M5x8 screws. For the cut I used 2 segments of 9mm blade.

for example:



**M3x8**

440 parafusos de cabeça de botão M3 M4 M5 de liga de aço com porcas sortidas, com acabamento de óxido preto SN-440B : Amazon.es: Bricolage e Ferramentas



STANLEY 0-11-300 - Folhas para cutter de 9 mm, 10 unidades, 9,5 mm : Amazon.es: Bricolage e Ferramentas

In addition to the .gcode and .stl files, I have provided the parts of my model in .3MF format which is much better than the obsolete .STL

From this file you can do whatever you want, convert to other formats you need and reslice it as you prefer.

See the differences between .3MF and .STL formats, for example at:

<https://www.youtube.com/watch?v=BABdR9d8Cp4>

[https://blog.prusa3d.com/3mf-file-format-and-why-its-great\\_30986/](https://blog.prusa3d.com/3mf-file-format-and-why-its-great_30986/)

<https://all3dp.com/1/3mf-file-format-all-you-need-to-know/>

Have good 3D Prints



For more Tools Xin1 please see:

3 in 1 Tool - Spatula, SuperPINDA adjust tool and Allen keys holder by Francisco Conceicao | Download free STL model | [Printables.com](https://www.printables.com)

2 in 1 - 4x SuperPINDA Adjustment Tool + X Axis Extruder Motor Visualizer by Francisco Conceicao | Download free STL model | [Printables.com](https://www.printables.com)

# Model files



**cutterweld\_3in1\_v10\_all.3mf**

☐ multiple versions for your choice



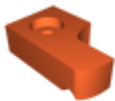
**cutterweld\_3in1\_v10\_part\_01.stl**



**cutterweld\_3in1\_v10\_part\_02.stl**



**cutterweld\_3in1\_v10\_part\_03.stl**



**cutterweld\_3in1\_v10\_part\_04.stl**



**cutterweld\_3in1\_v10\_part\_05.stl**



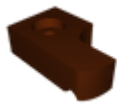
**cutterweld\_3in1\_v10\_part\_01.3mf**



**cutterweld\_3in1\_v10\_part\_02.3mf**



**cutterweld\_3in1\_v10\_part\_03.3mf**



**cutterweld\_3in1\_v10\_part\_04.3mf**



**cutterweld\_3in1\_v10\_part\_05.3mf**

## Print files



**cutterweld\_3in1\_v10\_part\_01\_015mm\_pla\_mini\_1h4m.gcode**

🌀 PLA 🌀 0.40 mm ≡ 0.15 mm ⌚ 1.07 hrs ⚖️ 9 g 🖨️ Prusa MINI / MINI+



**cutterweld\_3in1\_v10\_part\_02\_015mm\_pla\_mini\_1h11.gcode**

🌀 PLA 🌀 0.40 mm ≡ 0.15 mm ⌚ 1.18 hrs ⚖️ 9 g 🖨️ Prusa MINI / MINI+



**cutterweld\_3in1\_v10\_part\_03\_015mm\_pla\_mini\_21m.gcode**

🌀 PLA 🌀 0.40 mm ≡ 0.15 mm ⌚ 0.36 hrs ⚖️ 2 g 🖨️ Prusa MINI / MINI+



**cutterweld\_3in1\_v10\_part\_04\_015mm\_pla\_mini\_11m.gcode**

🌀 PLA 🌀 0.40 mm ≡ 0.15 mm ⌚ 0.19 hrs ⚖️ 1 g 🖨️ Prusa MINI / MINI+



**cutterweld\_3in1\_v10\_part\_05\_015mm\_pla\_mini\_12m.gcode**

🌀 PLA 🌀 0.40 mm ≡ 0.15 mm ⌚ 0.20 hrs ⚖️ 1 g 🖨️ Prusa MINI / MINI+

# License

This work is licensed under a  
**Creative Commons (4.0 International License)**



## **Attribution-NonCommercial**

---

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