



One For All | Cable Strap | Print In Place Clamp | Belt



Extrutim

[VIEW IN BROWSER](#)

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Summary

One to rule them all! A simple way to tie your big cables, your small cables or many other things together!

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Tags: [organizer](#) [cable](#) [print](#) [tie](#) [belt](#) [bracket](#) [clamp](#) [strap](#) [in](#) [binder](#) [zip](#) [place](#) [bind](#) [cablestrap](#) [cablebelt](#) [extrutim](#)

A cable strap to keep all sorts of cables from turning into a big knot. My goal was to find a solution that could handle all sizes of cables. For small charging cables there are already many models, but large cables also knot quickly. But you can also use it for much more, e.g. tie tension belts together or hold your skis in place. I was surprised myself how sturdy the strap is, I was able to lift 10kg without the strap slipping or opening.

The clamp is printed in place, you don't need supports. Choose a length of the strap which is then slid into the opening from the side.

Optionally you can print a bracket if you want to attach the cable tie permanently to a cable.

Print Instruction:

- 0.2mm layer height
- 2 perimeters
- 10-15% Infill

Attention:

I've added a new version of the clamp which has larger clearance. The new perimeter generator "Arachne" from Prusaslicer 2.5 has the individual parts otherwise connected.

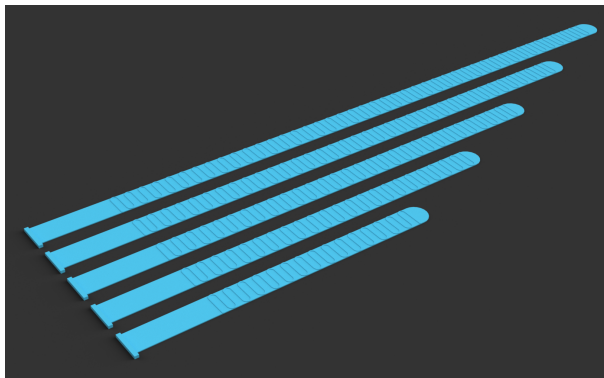
If the new clamp in your case shouldn't have enough clamping effect, download the version with smaller tolerance. Here you have to change the perimeter generator in Prusaslicer to "classic".

You can find it under: Print Settings -> Layers and perimeters -> Advanced -> Perimeter generator

I've printed mine from PLA. PC, nylon or other filaments with a very good layer adhesion are most suitable for the belt.

TPU for the belt is probably also a good option.

Important: Make sure that your first layer is set correctly. This will affect the thickness of the strap and therefore the function of the clamp. Also, over extrusion can affect the function of the print in place mechanism. If it does not move after printing or the lever cannot be released by pushing it, you will need to lower your flow rate slightly.



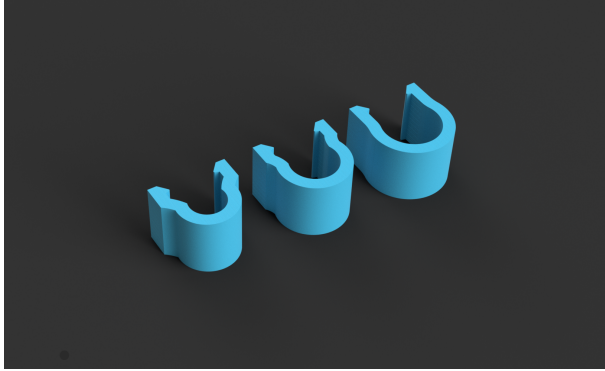
I have created five different lengths from 150mm to 350mm. The longest version does not fit on the MK3.

I have subsequently added a 240mm version that makes maximum use of the Prusa Mini's print bed.

The tolerances for the print-in-

place mechanism are chosen quite small to ensure proper clamping. If it can't be released in your case, it is often due to overextrusion. To check this, you can print [this tolerance coin](#) to check whether all levers can be released.





There are three cable holders with the diameters of 6, 8 and 10mm. These are quite tight and must be pressed in firmly. This ensures that the cable tie does not accidentally fall off. So you should be sure that you want it permanently on the cable.

27.01.22 - Added ClampV2 with a hole to be able to remove the belt

should it break off directly at the clamp.

- 29.01.22 - Added a version with a slightly larger belt slot in case the normal version is too tight, e.g. with TPU and overextrusion was excluded.
- 12.09.22 - Clamps added with increased clearance to bypass connecting parts through the Arachne Perimeter Generator. Also useful if you have problems with smaller tolerances.

Satisfied with this cable strap? Maybe you want to [join my club](#) for a month, about this tip I would be very happy because it helps me to finance my hobby to create models!

I would be very happy about a like or a rating if you like my project! Also take a look at [my other Designs](#)!

Note: Since the question came up recently, the license states that you may not use this model commercially. For me it's ok if you show the photos or the model to your audience, even if you make money with it as long as you name me as the creator and link to this page. You are not allowed to sell the files or the printed model itself.

Model files

 **Main Part** 6 files

 **clamp-larger-tolerance.stl**
☐ Works with Arachne Perimeter Generator | Possibly weaker clamping effect by underextrusion.



clamp-largerslot-larger-tolerance.stl

☐ Works with Arachne Perimeter Generator | Possibly weaker clamping effect by underextrusion.



clamp-small-tolerance.stl

☐ Won't work with Arachne Perimeter Generator! Change to "Classic" required!



clamp-small-tolerance.3mf

☐ Won't work with Arachne Perimeter Generator! Change to "Classic" required!



clamp-largerslot-small-tolerance.stl

☐ Won't work with Arachne Perimeter Generator! Change to "Classic" required!



clamp-largerslot-small-tolerance.3mf

☐ Won't work with Arachne Perimeter Generator! Change to "Classic" required!



Belts

6 files



belt150.stl



belt200.stl



belt240.stl

☐ Longer belts do not fit on the bed of the Mini



belt250.stl



belt300.stl

☐ Longer belts do not fit on the bed of the MK3

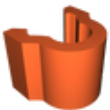


belt350.stl



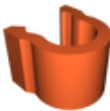
Optional Cable Brackets

3 files



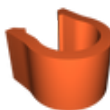
bracket6mm.stl

☐ Cable diameter up to 6mm



bracket8mm.stl

☐ Cable diameter up to 8mm



bracket10mm.stl

☐ Cable diameter up to 10mm

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