



Modular Hoses (Loc-line like)



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Summary

Modular hose elements like the loc-line ones but to print.



2.24 hrs



2 pcs



0.20 mm



0.40 mm



PET



16 g



Prusa
MK3/S/S+

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

Tags: [modular](#) [arm](#) [hose](#) [locline](#)

Description

Loc-line hoses are industrial flexible hoses used in manufacturing machine to provide the coolant accurately on the part and the tool during operations.

But those kind of hoses can also be used as very useful helping hands to hold parts, tools or whatever you want on your personal workshop as well as on industrial assembly benches.

I used it quite often during soldering operations to hold the components, a light and my safety glasses for instance. You can even pass cables inside the elements.

“OEM” modular hoses are quite expensive but cheaper solutions can be found on the market. However, it is not always convenient because you want a more customised solution (colors and length in my case), or simply because the shipping time and cost are high (also my case).

All in all, it is even more cheap and convenient to print our own elements than searching compatibles elements and buying them here and there.

That's why I began to iterate on simple elements to finally design those ones.

In the future, I will try to elaborate a important collection of compatible elements to print.

Version	Description	Date
A.1	Initial Release	12/08/2021
A.2	Add Banana ClipHead (in test)	28/01/2024

Printing Instructions

1. Element

- PETG for stiffness.
- Layer Height: 0,2 mm
- 2 Perimeters
- No supports
- 100% infill
- Seam (retraction): random

Assembly

1. Align 2 elements (ball on the opening) quite well, collinear axis.
2. Then, just press strongly the parts until the ball is fully enclosed inside the parts.
3. Try to move them a little bit to force the movement once despite the roughness. It will be smooth afterwards.

Holding Strength

To get more or less strength/smoothness, permanent lubricant are used to be applied.

In our case, it won't work as well. Therefore, I have provided different “versions” of the elements related to their holding strength.

- Light ones are very smooth/flexible to orientate but are not really “sturdy” to hold a mass (light electronic components are ok but not PCB for instance).
- Hard ones can hold a mass/elements quite well but are more tough to orientate.

(I will try to add more accurate data/measures on this point)

Notes

- Not compatible with "OEM" Loc-line and Snapline.
- Photo of the CNC Machine from Helsinki Hacklab Lab Camera (Flickr)

Have a nice print !

Last note! I've spent quite a lot of time designing, iterating and prototyping on all my models. Therefore, if you enjoy them, please don't forget to like+download and then rate them, so that I can earn so prusaments to continue ;)

Model files

 **STL Files** 3 files

 **modular-hose-element-hard.stl**

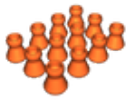
 **modular-hose-element-light.stl**

 **modular-hose-banana-cliphead-hard.stl**



3mf Files

2 files

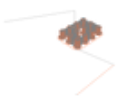


modular-hose-element-hard.3mf



modular-hose-element-light.3mf

Print files



petg_modularhose_element_hard.gcode

PET 0.40 mm 0.20 mm 2.24 hrs 16 g Prusa MK3/S/S+



petg_modularhose_element_light.gcode

PET 0.40 mm 0.20 mm 2.20 hrs 16 g Prusa MK3/S/S+

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