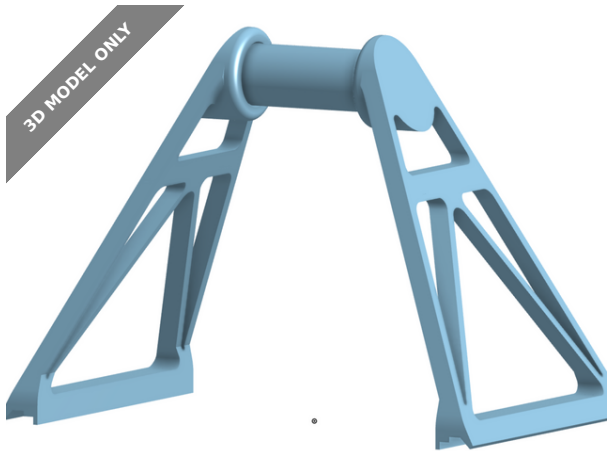




Creality K1 & K1C top mounted filament spool holder (new version 2) for TPU, etc.



Mr TVR

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Summary

This filament spool holder is designed to fit on top of the Creality K1 or K1C once the glass lid is removed.

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Why might you need this?

Following my design of a top-mounted spool holder to allow my Creality K1 Max to print TPU more reliably I received several requests for a similar model to work with the K1 and here it is!

This will allow the filament to be fed directly to the extruder, thus removing the friction that occurs when feeding via the Bowden tube.

The relatively small print platform of the K1 & K1C means that it is now a 5 part design, which was necessary in order to maintain the clearance from the top of the printer.

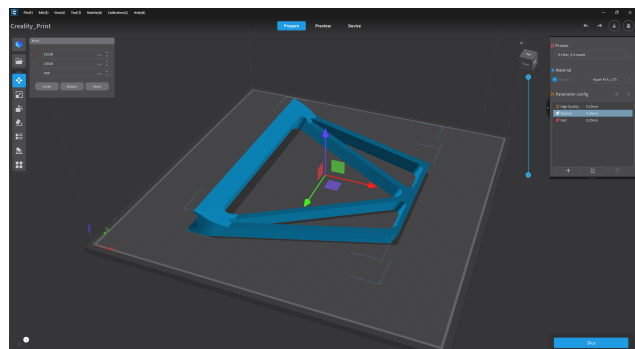
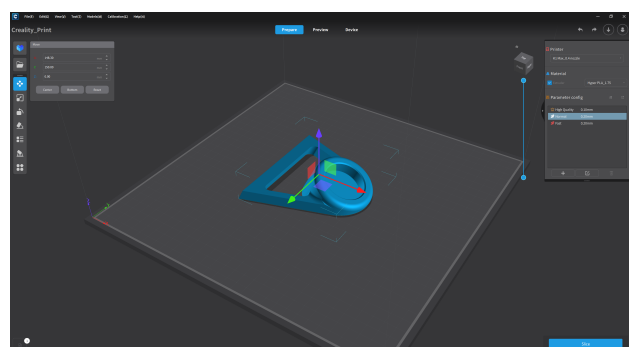
Whilst it could be used to feed any type of filament that does not require the top glass cover to be in place it might not be suitable for high-speed prints (possible vibration issues) or large-sized prints where inertia might cause the filament spool to release excess filament!

NOTE: The roll holder is deliberately designed to be a snug fit. some people have reported that (due to printing tolerances) their roll holder is very tight. If you don't push it all the way into the stand at each side then the stand will appear to be too large to fit the opening of the printer. If your print is too tight, just sand a small amount off the circumference of each end of the roll holder until you get a snug fit. If this happens often then I will issue a slightly smaller roll holder to accommodate the print variability.

Print guide

The side parts (2 off required) should be placed on the print bed with the large flat surface of the print on the print bed.

The top parts (2 off required) should also be placed on the print bed with the large flat surface of the part on the print bed.



The spool roll should be placed on the print bed in an upright position.

Recommended print settings

Nozzle: 0.4

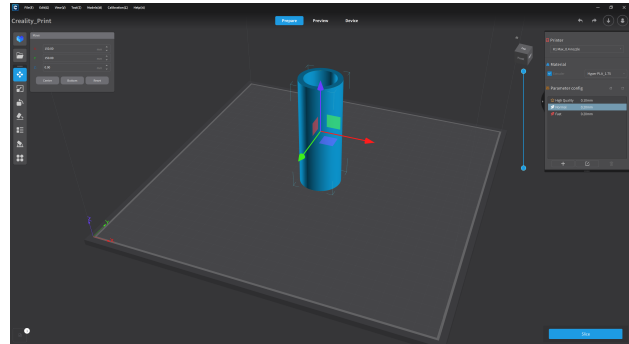
Layer height: 0.2

Perimeters: 3

Top/Bottom layers: 4

Infill: 15%

No Supports



I printed using Hyper PLA on a textured build plate without any build plate adhesion but with a bed temperature of 55 Deg C to make sure it remained in place.

Assembly requires 8 x 4mm diameter pan head self-tapping screws, 15mm length or similar to attach the side supports to the top spool roll holder.

Please note that you might have to use a bit of force the first time you fit the spool roll as I have deliberately made it a tight interference fit.

N.B.

You will either need to leave some filament in the filament runout sensor or alternatively unplug the runout sensor while using this stand to feed the filament.

If you like this then please remember to hit the like button.

Revision notes

V1 was produced without any ability to test the design as I do not own a K1. For this reason, I created 2 versions of the top section. The first provided the same clearance that I knew was required for the K1 Max, the second provided extra clearance, which I thought might be needed by the K1 due to the extruder protruding above the top of the printer.

V2 was produced following initial feedback that the extra clearance mentioned above was in fact required. V2 now provides the same extra clearance as the original model but without looking so ugly!

Model files



k1-top-spool-holder-v2-side-supports.stl



k1-top-spool-holder-v2-top-supports.stl



k1-top-spool-holder-v2-roll.stl

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