

Sovol SV06 Plus frame brace



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Summary

Parts to brace the z-axis extrusions of the Sovol SV06 Plus

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Edit: I have added a revised set (v2) models that move the threaded rod braces out from the center of the printer. This change reduces the impact of the braces on maximum z-height. The v2 model has different lower printed parts. You will have to relocate the touch screen if you choose v2.

This is a frame brace setup for a Sovol SV06 Plus. The top parts replace the factory parts that hold the top of the z-rods and z-screws. The bottom parts mount to the front of the extrusions that run parallel to the y-axis using t-nuts and M5 machine screws.

Print two copies of the bottom parts. They are the same for left and right. Print one copy of the top part as-is and print a second copy mirrored. I suggest you print one top part first and make sure your printer is dialed in for a good fit.

I live in the United States, so I made this to use two ~24" lengths of standard 3/8" threaded rod available at American hardware stores. I included STEP files so you can remix this to fit whatever metric rod might

be available in other countries. Three-eighths of an inch 9.525mm, so maybe some 9mm threaded rod would work, if such a thing exists.

There is lots of margin for error for the threaded rod length, so your cuts don't have to be super accurate. This means you do need to use something like a machinists' square when you set this up. You want the z-extrusions completely perpendicular to the y-extrusions. You could probably print a square of some kind, that's your business.


I would love to hear some feedback from someone that has done Klipper input shaping on their printer. I'm curious if this style of brace has any positive (or negative) effect on the resonance testing results.


This will not fit the regular SV06. The linear rods are a different size and the frame geometry is probably different. Feel free to remix though.


You will need to add:


- six M5x6mm machine screws (8mm length might also work)
- six M5 t-nuts
- four M4x12mm machine screws
- four M4 washers
- four M4 nuts, nylocks if you're feeling spicy
- two pieces of 3/8" threaded rod, approximately 24" each
- eight nuts for the threaded rod
- six washers for the threaded rod

Model files

 **v2 STEP** 4 files

 **sv06-plus-frame-brace-lower-b-v2.step**

 **sv06-plus-frame-brace-lower-a-v2.step**

 **sv06-plus-frame-brace-upper-a-v2.step**

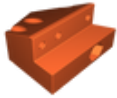


sv06-plus-frame-brace-upper-b-v2.step

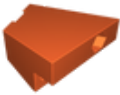


v2 STL

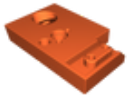
4 files



sv06-plus-frame-brace-lower-a-v2.stl



sv06-plus-frame-brace-lower-b-v2.stl



sv06-plus-frame-brace-upper-a-v2.stl



sv06-plus-frame-brace-upper-b-v2.stl



v1 STEP

2 files



sv06-plus-frame-brace-lower.step

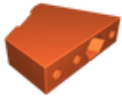


sv06-plus-frame-brace-lower.step



v1 STL

2 files



sv06-plus-frame-brace-lower.stl



sv06-plus-frame-brace-top.stl

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