Sovol SV06 10MM ROD MOD

Dustmuffins

VIEW IN BROWSER

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Summary

A mod to add some extra support to the SV06 when printing at higher heights and faster speed.

3D Printers > 3D Printers - Upgrades

Tags: `sv06`

This kit is remixed form many models. I was inspired by the Prusa MK4 using 10mm linear rods on the Z axis for a stiffer X axis, and set out to achieve the same thing with the SV06.

Things you will need:

- Drill and drill bits
- Hammer and allen wrenches
- This tool (or using the correct size socket works too)
- 2 x 10mmx400mm linear rods (Got mine on Amazon)
- 2 x LM10LUU or 4x LM10UU bearings (I used 2 of these. I hear the ones on amazon are bad quality)
- Assorted metric bolts and threaded inserts. 3mm, 4mm. You can get kits on Aliexpress and Amazon. You will not be able to reuse the x axis tensioner and will need to replace it with a longer M3 bolt.

Some tips:

- I recommend using a drill to make sure the holes are the correct size. The fit for the rods should be pretty tight so they don't flop around during printing.
- Mirror the top Z block in your slicer to get one for the other side
- Print in a high temperature material with 3-5 perimeters. I used ASA.
- I modified the Z axis motor mounts so the screws thread directly into the plastic. Modify the included STEP file if you'd prefer to use inserts.
- Any unintended slop in the linear rods can be taken up by putting a sliver of electrical tape on the end to make it fit tightly.
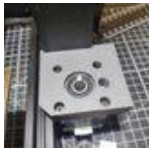
Instructions:

- Remove top Z blocks
- Remove Z axis linear rods
- X Axis
  - Remove x-axis assembly from Z-axis along with Z lead screws
  - Remove x-axis belt
  - remove X axis motor mount
  - Pull blocks from original rods
  - Insert new bearings (this tool helps with installation and removal)
  - Install M3 heated inserts for pom nuts
  - Install M4 heated inserts for x axis motor mount
  - Press rods into original blocks (will probably require drilling for a tight fit)
  - Install x axis motor mount
  - Install x axis belt using new tensioner screw
- Z Stepper motor mounts
  - Drill holes to approx 3.5mm
  - Repeatedly thread an M4 bolt in and out of each hole to cut threads
  - Unplug and remove Z motors
  - Remove Z motor mounts
  - Install new motor mounts
  - reinstall Z motors
- Install 10mm Z rods
- Install Z lead screws (leave some space between them and the motor shaft)
- reinstall x axis on Z rods
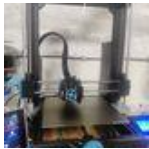- install top Z blocks

This remix is based on

SV06 top z-axis rod fixing blocks (parametric)
by blastrock

SV06 stiffer Z motor bracket upgrade with adjustment
by jayksopp
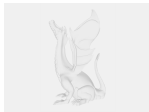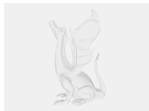
SOVOL SV06 stiffer X-axis blocks
by jayksopp

Model files

v4-top-z-guides.step

v5-x-axis-block-left-left-block.step

v2-x-axis-block-right-right-block.step

v2-10mm-z-bracket.step

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