

Direct Drive mod for the X5SA-Pro (BMG edition)



xadow

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Summary

Direct drive mod for the Tronxy X5SA-Pro. I wasn't happy with the alternatives for making the Tronxy X5SA-Pro a direct...

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Tags: [tronxy](#) [directdrive](#) [cablechain](#) [x5sa](#) [tronxyx5sa](#)
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Direct drive mod for the Tronxy X5SA-Pro. I wasn't happy with the alternatives for making the Tronxy X5SA-Pro a direct drive machine, I wanted a stable modification, that wasn't prone to wobble, that required no permanent modifications to the stock printer and because I had a BMG clone I wanted to take advantage of it (even the cheapest ones are many times better than the crappy titan clones that come with this printer. The innovation with this mount is that besides using the screw mounts for the cable chain, it also replaces the spacers between the two plates were your gt2 belt attaches, this provides extra rigidity for the mounting of the extruder.

You will need the plastic bracket that comes with BMG/Titan clones (I saw no need to further burden the design with a motor holder when this part is sturdy and works well.

Also included are two adaptors that elevate the cable chain and also change it's angle, thus allowing it to clear all of the moving parts, these

are optional (inspired by the designs at: <https://www.thingiverse.com/thing:4553510> and <https://www.thingiverse.com/thing:4414122>, I'm sorry I can't add them as a remix, the thingiverse search is broken again)

A small amount of supports is required on the mount as well as on `cable_chain_back.stl`. All the parts are already on the correct printing orientation.

The main holder should also be as rigid as possible, so between 50% to 70% infill and 3 to 5 perimeters should provide it, also print it in something that has heat resistance, as the motor will seat directly above, I printed in PETG but ABS/ASA should also work well. And truth be told, it should also work with PLA, as the part should be insulated enough from the motor, but no promises.

To use this you will need to disassemble your current setup, namely the plates where the belts attach to, check the pictures to see how it should look like. Also you will need some M3 screws and nuts, 12/16mm should be ok, also you don't need to fill every hole, just enough so that mount is as stable as possible, I used 4, 2 on top, 2 on the bottom, as further a part as I could.

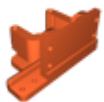
I also designed two other things that work with this mod:

1 - a reverse bowden adapter for the filament sensor <https://www.thingiverse.com/thing:4712404>

2 - a pen holder adapter <https://www.thingiverse.com/thing:4712400>

Category: 3D Printer Parts

Model files



direct.stl



cable_chain_back.stl



cable_chain_front.stl

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