



CR-10 S5 rebuilt to Prusa XXL style 500x500x500 mm printer



rosch8

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Summary

I had my Creality CR 10S5 printer in mostly original state for 2 years. I was printing with it, but I have some prusa...

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I had my Creality CR 10S5 printer in mostly original state for 2 years. I was printing with it, but I have some prusa printers mk3s and after some experiences I could see so many problems with those Creality printer. I decided to do not mod it, but rebuild it fully. Only frame PSU, MOSFET and motors I used to this new project.

Project goals:

adopted from prusa:

original mk3s rambo board with excellent prusa firmware and tmc 2130 silent drivers (modified firmware, of course)

whole mk3s extruder body with direct drive, filament sensor, and SuperPINDA probe

magnetic bed sticker with steel sheet and textured PEI printing surface

24V PSU with panic sensor for interrupted power and printing recovery

I left original PSU for bed heating. I insulated whole low surface of bed and I increase voltage of PSU to 12,00 V so heating of bed is faster. My

maximum I am using is 75°C anyway.

For Z axis I am using synchronized belt system and gear box, so step/mm is the same as mk3s has with threaded rods.

I used synchronized belts system for Y axis too, so no twisting of the bed at all. Gear ratio is 1:2 so Y motor has 2x more torque output for such large bed.

BOM is not ready

Firmware allow me to make homing and bed leveling. Printing not yet tested, but in a few days I will print something.

I need to update movement intervals, so most of the calibration processes from firmware will be running.

Firmware is on github:

https://github.com/rosch8/Prusa_mk3s_firmware_for-CR10S5_rebuilt

Video:

Print Settings

Printer Brand:

Prusa

Printer:

I3 MK3S

Rafts:

No

Supports:

No

Resolution:

200

Infill:

30%

Filament:

any PETG

Notes:

mostly 3 perimeters.

Orientation of many models is not good, please reorient it before slicing, so you do not need any support.

Category: 3D Printers

This remix is based on



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by [rosch8](#)

Model files



bed_holder.stl



beam_holder_front.stl



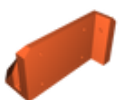
corner_pulley_holder_mirror.stl



corner_pulley_holder.stl



spanner_cap.stl



einsy_box_holder.stl



lcd-supports1.stl



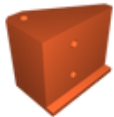
psu_24_holder.stl



lcd-supports2.stl



bearing_holder.stl



tensioner_z_belt_mirror.stl



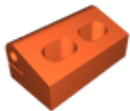
corner.stl



mosfet_holder.stl



beam_holder_front_mirror.stl



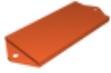
belt_fixator_mirror.stl



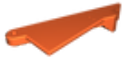
spool_holder.stl



rib.stl



cover_psu_holder.stl



spool_holder_mirror.stl



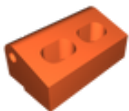
tensioner_z_belt.stl



gear_box_2.stl



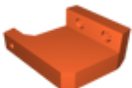
top_z_belt.stl



belt_fixator.stl



spanner.stl



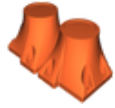
psu_360w_hanger1.stl



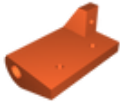
ymotor_holder.stl



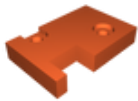
bearing_spacer.stl



leg_x.stl



bearing_holder_mirror.stl



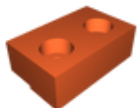
endstopzmirror.stl



endstopz.stl



top_z_belt_mirror.stl



belt_fixator_x.stl



xz_right.stl

[Find source .stl files on Thingiverse.com](#)

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