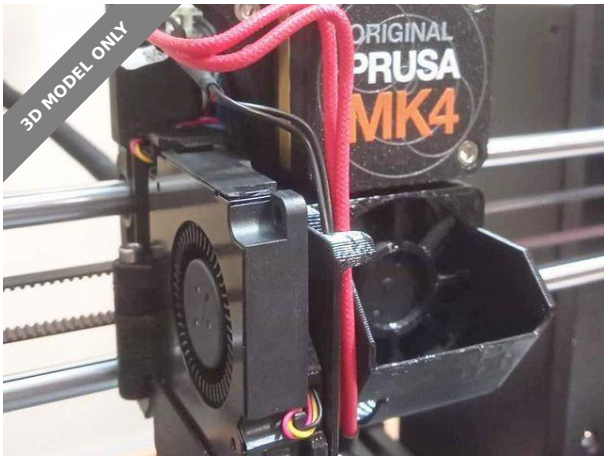
Printables by JOSEF PRUSA



Prusa MK4 quick swap hotend - cables reroute for easier swap

b baobab_pig

VIEW IN BROWSER

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Summary

Mod that enables actually quick swapping of whole hotends.

3D Printers > Prusa Parts & Upgrades

Tags: mk4 quickswap prusamk4

WARNING: this mod requires cutting wires and reconnecting them. Do it at your own risk.

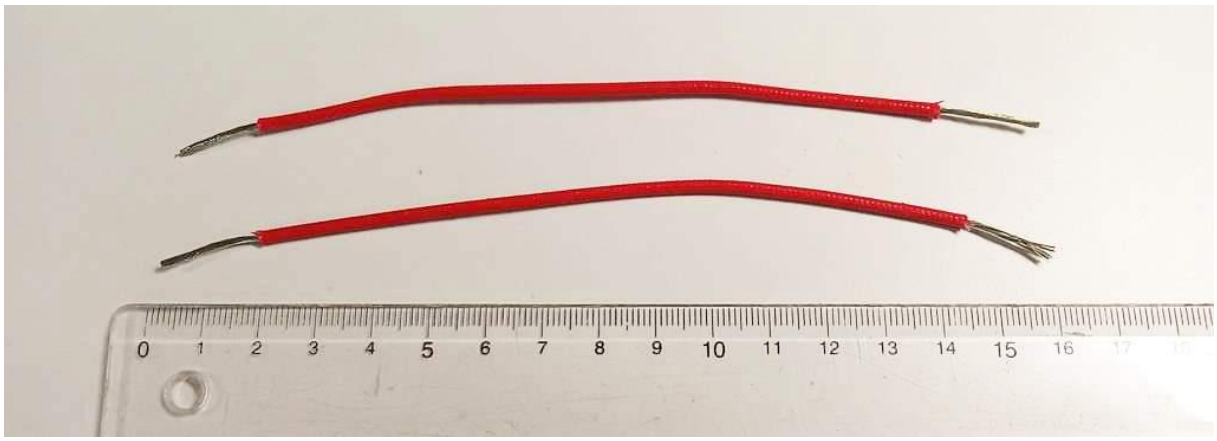
To be able to quickly and easily change whole hotends (nozzle+block+heater+thermistor), one would need to remove the “loveboard cover”, then fiddle with the cables which can barely fit in the channel, and replace the cover. If the cables aren't perfectly tucked in the channel, the “fan door” cannot be closed properly. All this defeats the purpose of “quick swap”.

This mod enables actually quick swapping of hotends.

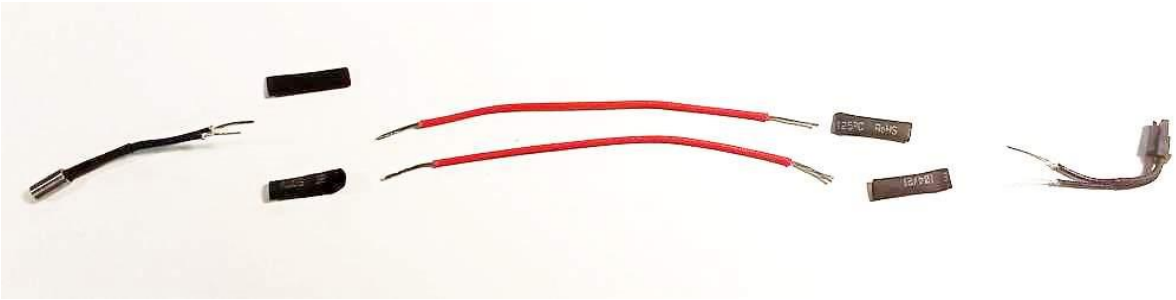
Instructions:

Cut the heater wires in half and strip the ends.

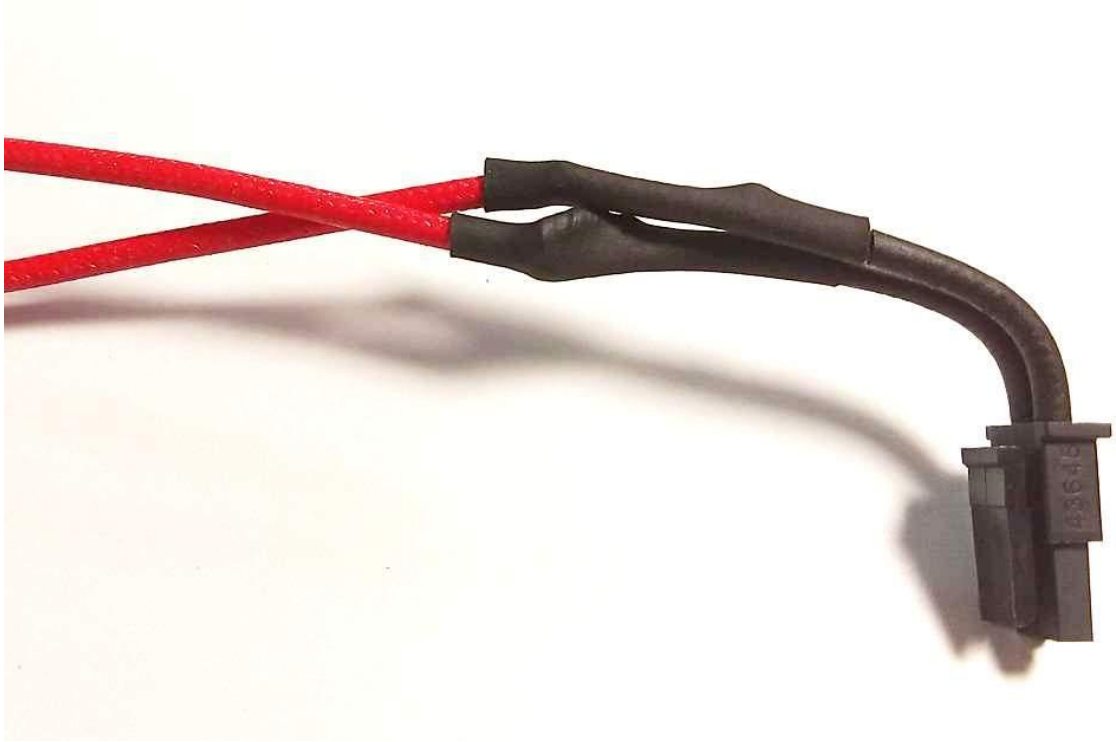
The heater wires should be extended by ~10cm (it could be shorter, but there should be some extra length to be able to open the extruder idler without unplugging the cables). This means that additional wires should be cut to length of ~16cm (because of overlap of ~1.5cm per connection).



Reconnect the wires with additional wires in between.

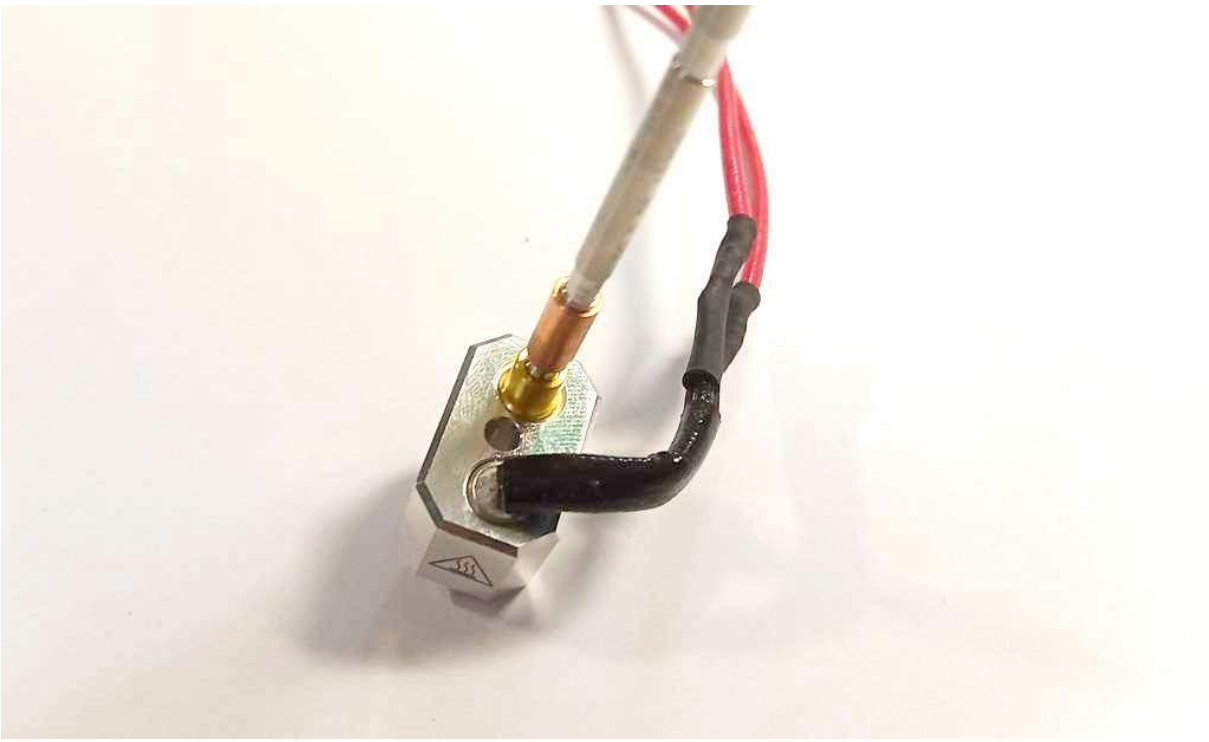


Recommended to use heat shrink sleeves.



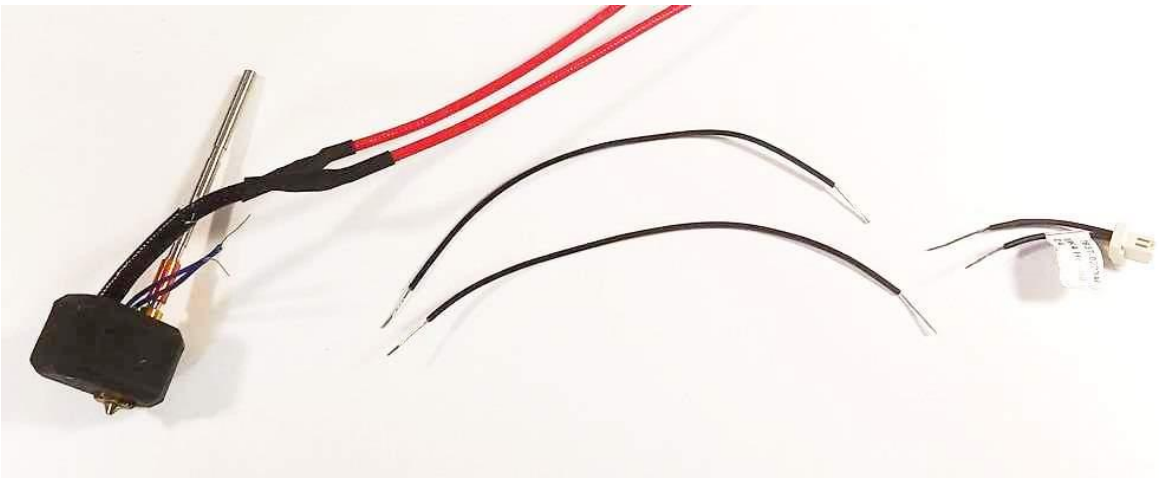
Comparison between original and extended wires:

When inserted in the heater block, bend the wires to the side, then left, as shown in the photo:

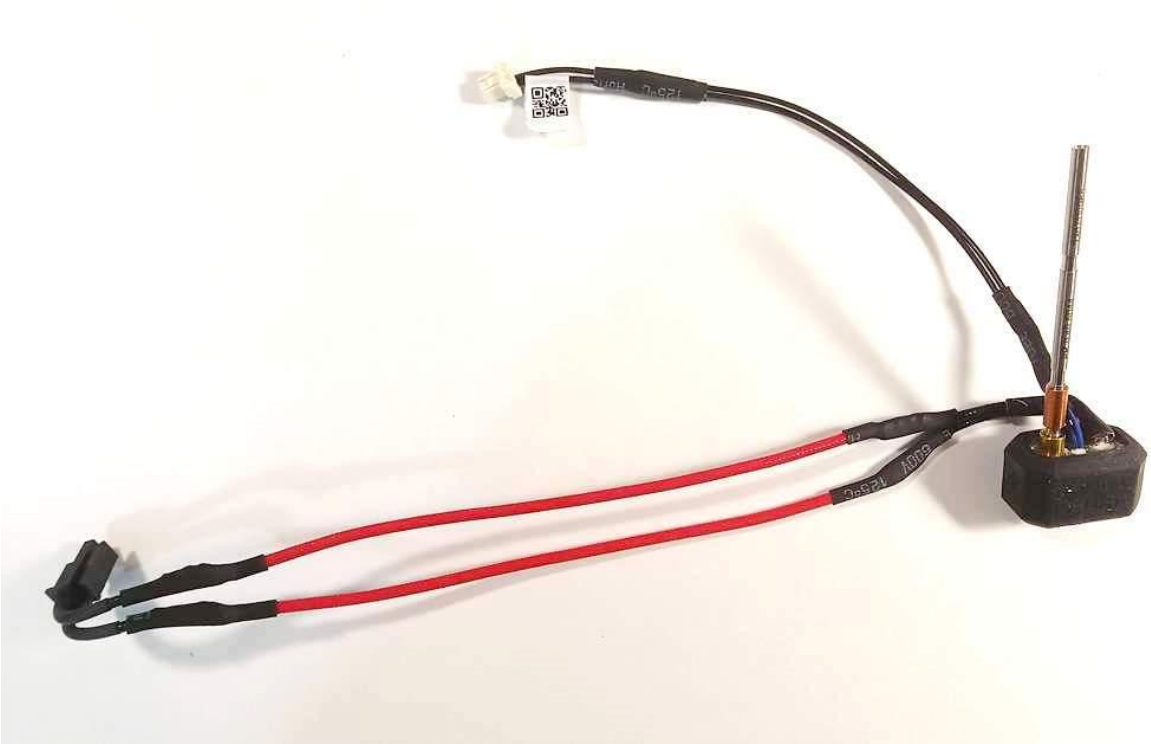


The thermistor wires should be extended by ~9cm. For an overlap of ~1cm per connection, cut the additional wires to ~13cm.

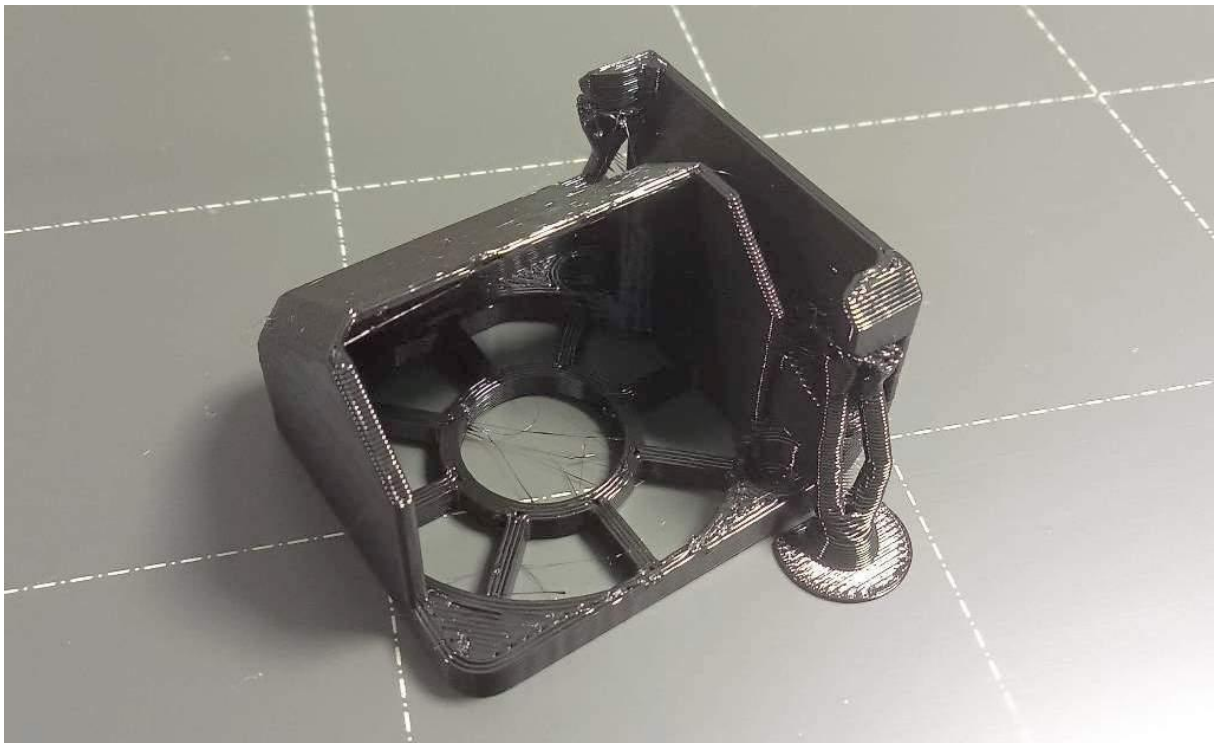
Strip the wires and reconnect them. WARNING: be very careful with the thermistor wires, they are very thin! If you accidentally tear the wires resulting in a break close to the thermistor, you'll have a hard time reconnecting the wires (with a little luck that didn't happen to me on the first wire, but it was close, phew).

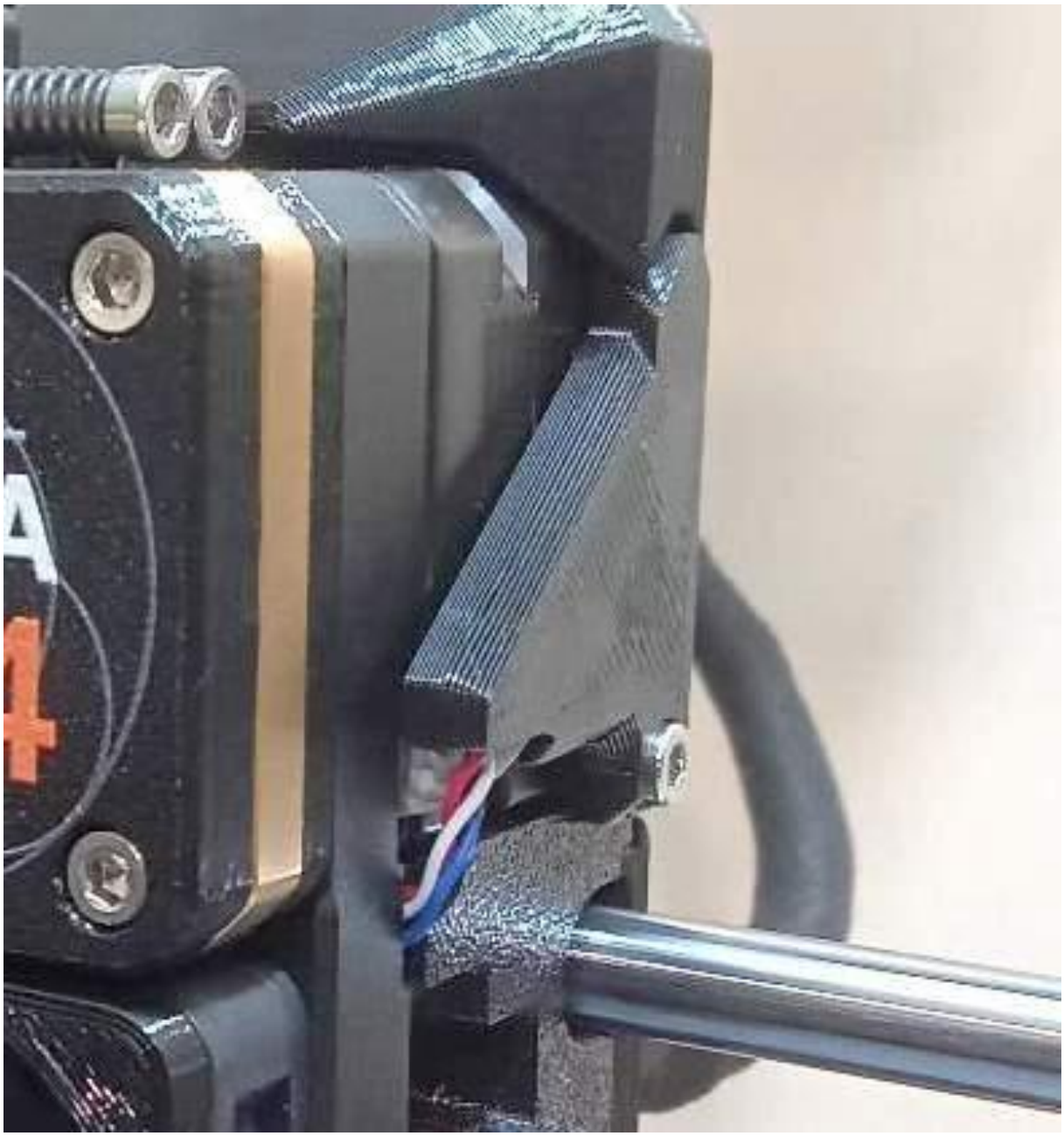


The final extended wires:



Use PETG for the printed parts (recommended). The fan cover should be printed with organic supports. I've provided .3mf files with the supports painted and other settings. Check all the settings in the .3mf files before exporting gcode.





I've also changed the “loveboard cover - right”, for the case if the loadcell and filament sensor cables can't really fit under the original cover (as in my case).

This remix is based on

MK4/MK3.9 printable parts

by Prusa Research

Model files

loveboard-cover-main.stl

loveboard-cover.3mf

fan-cover-cable-guide.stl

fan-cover-cable-guide.3mf

loveboard-cover-right.stl

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