



Prusa MINI/MINI+ Extruder Shield



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[VIEW IN BROWSER](#)

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Summary

This is a simple, clip-on shield that goes on the hotend of the Prusa MINI/+ so your fingers are safe from burns.



0.92 hrs



2 pcs



0.20 mm



0.40 mm



PET



6 g



Prusa MINI /
MINI+

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Update (July 13th, 2022)

After receiving feedback about mounting the shield and the occasional break, I have decided to strengthen a few parts of the design to prevent breaking during support removal, slipping off the left mounting point, and warping during printing. I have also added a no-hook design for those who wish to glue the lower portion instead.

Description (May 8th, 2020)

Today after being a little careless I got a small (but still unpleasant) burn

on my finger after some contact with a fully-heated Prusa MINI hotend. I was inspired to create this model to prevent this inconvenience for others!

The Prusa MINI is an amazing machine, but it comes with a bit of a concerning extruder design that leaves the hotend fully exposed to anyone whose fingers may fail them.

I designed this in TinkerCAD and based the modeling off an assembled Prusa MINI STL file here:

<https://www.prusaprinters.org/prints/14473-original-prusa-mini-prusaslicer-model>

The design does not interfere with the parts of the machine around it. The shield fits nicely under the x-axis block and stepper motor and rests nicely on different parts of the extruder.

I am glad you have found this model and I hope it protects your hands from burns in the future!

Download Instructions

Download the **v5.0** file (.gcode if you are planning on using default **PETG** settings) by default.

Download the **v5.0 (No Hook)** file if you plan on using glue to secure the shield in place.

Print Instructions

Supports everywhere (or with specific enforcers on the upper clip and the overhanging ledges) is definitely recommended. Organic supports are probably best but I haven't tried them!

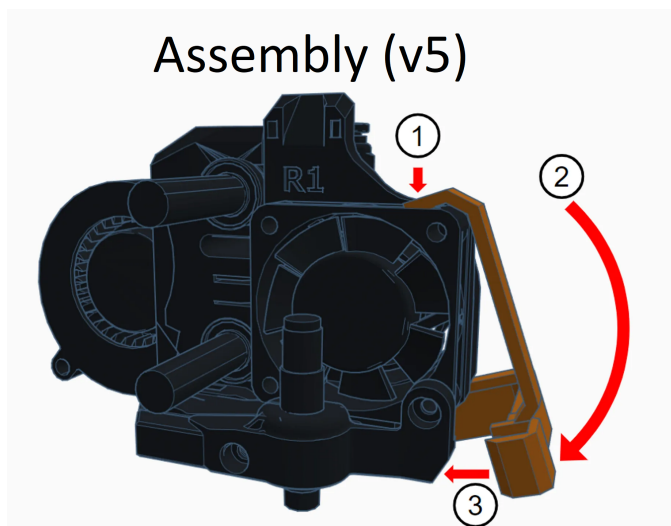
I would also consider using a high-temperature-resistant filament like (but not limited to) **PETG**, **ABS**, or **ASA**. This part will be near a HOTend for hours and it wouldn't be amazing if it started to melt onto your precious prints below! Some people have had success with **PLA** but I would recommend a more temperature-resistant material first.

The only thing I would note is to be careful with removing supports; I would recommend setting a larger-than-usual "Contact Z distance" ($\geq 0.2\text{mm}$) in settings if you are using **PETG** or **ABS/ASA**.

Assembly

Assembly is simple. Just rest the top of the shield "hook" on the corner of the extruder fan that is closest to the front and swing the lower half forward until the bottom left is held in place in front of the PINDA.

Assembly (v5)



The shield is secured by the hook on the top and by friction on the left. The new v5 clip has a much tighter fit on the extruder to prevent slipping, so it may take a little force to push into place; if this is the case, make sure you're supporting the back of the piece it's snapping onto when assembling!

Troubleshooting

If the bottom “clip” (shown in step 3 above) is too loose and does not fit snugly on the extruder frame, consider adding sticky tape or a similar thin adhesive to one side to increase friction, or try increasing XZ compensation in PrusaSlicer by 0.1mm.

If the top “hook” snaps off during support removal, consider increasing support “Contact Z distance” in settings, increasing XZ compensation, increasing perimeters, or increasing infill percentage.

Please let me know in the comments if you have any questions or suggestions!

Model files



prusa-mini-extruder-shield-v50.stl

☐ The default option (no glue required)



prusa-mini-extruder-shield-v50-no-hook.stl

☐ For those who wish glue it to the extruder

Print files



prusa-mini-extruder-shield-v50_02mm_petg_mini_5.gcode

⚙️ PET 📏 0.40 mm ≡ 0.20 mm ⌚ 0.92 hrs ⚖️ 6 g 🖨️ Prusa MINI / MINI+

☐ The default option (no glue required)



prusa-mini-extruder-shield-v50-no-hook_02mm_pet.gcode

⚙️ PET 📏 0.40 mm ≡ 0.20 mm ⌚ 0.52 hrs ⚖️ 4 g 🖨️ Prusa MINI / MINI+

☐ For those who wish glue it to the extruder

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