

Improved Prusa Mini+ Filament Sensor with PTFE tube quick fittings



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[VIEW IN BROWSER](#)

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Summary

Improved Prusa Mini+ Filament Sensor, PTFE quick fitting included, better feedthrough and neater design

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I've started to re-design the Spoolholder for the Prusa Mini in order to hang it to my equipment rack. This spoolholder included a swiveling part with a PTFE tube towards the filament sensor to aim for a neater routing of the filament. Unfortunately the filament sensor did not allow for a good fixation of the PTFE tube, hence it was pushed out. In addition i was not happy with the feedthrough, the filament was often stuck in the sensor.

Design:

What i have changed in the design:

- incorporate 2 PTFE quick-fittings (PC4-M10)
- Improved feedthrough by inserting the bowden tubes as close as possible

- Design is now rounded which looked neater
- lever arm extended by 1mm for some cleare issues.

All bolts, magnets, steel ball, and sensor can be reused. I placed an m3 washer below the the lever arm for a more smooth operation.

Printing

- Body: to be printed on the flat surface with the hole for the wiring on the heatbed. minor support is needed for the internal geometry for the filament sensor hole (use a small support enforcerer). 3 or 4 perimeters are recommended to ensure a proper connection with the quick-fitting.
- Cap: to be printed with the wiring clamp on the heatbed. A brim is recommended to ensure a proper print.

Model files



filament-sensor-mr-lever-extended.stl

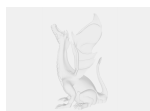


filament-sensor-mr-round-cap.stl



filament-sensor-mr-round-body.stl

Other files



filament-sensor-mr.pdf

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