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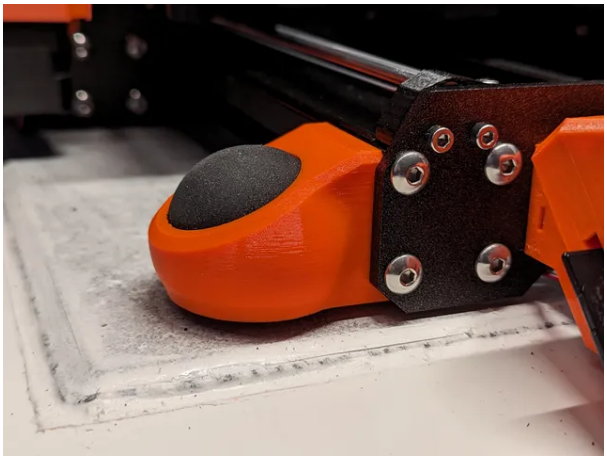

Low Profile Squash Ball Feet for Prusa MK4/S, MK3.9/S, MK3.5/S & i3 MK3/S/+

firetech

VIEW IN BROWSER

updated 3. 11. 2024 | published 3. 11. 2024

Summary

Squash ball feet in the same style as @Yosuke's popular model, but without adding any height compared to the stock feet.

4.16 hrs	6 pcs	0.20 mm	0.40 mm	PET	81 g	Prusa MK4

3D Printers > Prusa Parts & Upgrades

Tags: mk3 mk3s prusai3mk3 antivibration lowprofile mk4 squashball mk3splus squashballfeet mk39 prusamk4 mk35 mk4s prusamk4s prusamk35 prusamk39 mk39s prusamk39s mk35s prusamk35s

I liked the look of @Yosuke's Squash Ball Feet, but the added height compared to the stock feet (~10mm) made the MMU3-to-extruder tube rub against the ceiling of my enclosure just a bit too much, so I loaded in the model in Fusion 360 and started tracing some measurements for a low

profile reimplementation. This is the result. I can't notice any difference in noise/vibration performance compared to @Yosuke's original.

Getting the ball into the holder is a bit harder than on @Yosuke's original, but a rolling motion and some patience does the trick.

Since the printer is heavier towards the rear, especially with the printer unmodified (i.e. with the PSU and spool holder still mounted to the printer) and with filament spools loaded, you might need to use different feet on the rear end of the printer. There are three different models available:

Base	Use this for the two front feet, regardless of anything else. For a printer in an enclosure, with the PSU and spool holders mounted elsewhere, they also work for the rear feet, but you might want to add a third pair of (the same) feet close to the rear pair. That worked well (enough) for my old MK3S+ in my Lack Enclosure v2.
+1mm	(Untested) Raises printer 1mm compared to base model. Might be better for the rear feet of an enclosure-modified printer (PSU and spool holders elsewhere), but hasn't been tested, since I'm temporarily without enclosure. (Feedback welcome!)
+2mm	Raises printer 2mm compared to base model. This seems to be about right for keeping the stock feet height on the rear feet of an unmodified MK4 (PSU and spool holders still mounted), at least with its spool holders loaded with full(ish) spools.

Required extra hardware (per foot)

- 1x Squash ball (double yellow dot recommended)
- 1x M5x12 **flathead** bolt (non-flathead screws work, but can protrude more than the balls manage to lift).
- 1x M5 T-nut for the 3030 profile (I can recommend this)

Differences from @Yosuke's original include (but are not limited to)

- Moved the ball further into the holder, and moved the outer part of the holder up slightly. The combination of these two lower the printer about 10mm compared to the original, which makes it just about the same height as the stock feet.
- Incorporated @THS_148711's slot modification for easier installation.
- Chamfered the screw hole (at the end of the slot) for a flathead M5.

Update 2023-10-25: Re-exported the 3MF file from Fusion 360 with higher refinement (polygon count) for a smoother outer surface. Doesn't affect the actual print much, but does at least look nicer in the slicer. Also updated the uploaded G-code to this higher resolution model.

Update 2024-02-11: Uploaded new variants in which the ball is moved slightly downwards, raising the printer. See table above for details on which model(s) to choose for your printer.

This remix is based on

Squash ball feet for Prusa i3 mk3s

by Yosuke

Squash ball feet for Prusa i3 mk3s - Slotted

by THS

Model files

+1mm 2 files

low-profile-squash-ball-foot-1mm.3mf

+1mm model. See description for model selection!

low-profile-squash-ball-foot-1mm.f3d

Fusion 360 source of +1mm model

+2mm 2 files

low-profile-squash-ball-foot-2mm.3mf

+2mm model. See description for model selection!

low-profile-squash-ball-foot-2mm.f3d

Fusion 360 source of +2mm model

low-profile-squash-ball-foot.3mf

Base model. See description for model selection!

low-profile-squash-ball-foot.f3d

Fusion 360 source of base model.

Print files

MK4 (with Input Shaper) 3 files

low-profile-squash-ball-foot-x2_04n_02mm_petg_mk4is... .bgcode

PET 0.40 mm 0.20 mm 2.06 hrs 40 g Prusa MK4

Pair of base model feet (see description for model selection!)

low-profile-squash-ball-foot-1mm-x2_04n_02mm_petg_m... .bgcode

PET 0.40 mm 0.20 mm 2.09 hrs 41 g Prusa MK4

Pair of +1mm model feet (see description for model selection!)

low-profile-squash-ball-foot-2mm-x2_04n_02mm_petg_m... .bgcode

PET 0.40 mm 0.20 mm 2.10 hrs 41 g Prusa MK4

Pair of +2mm model feet (see description for model selection!)

MK3S(+) 3 files

low-profile-squash-ball-foot-x2_02mm_petg_mk3s_3h27m .gcode

PET 0.40 mm 0.20 mm 3.45 hrs 40 g Prusa MK3/S/S+

Pair of base model feet (see description for model selection!)

low-profile-squash-ball-foot-1mm-x2_02mm_petg_mk3s_... .gcode

PET 0.40 mm 0.20 mm 3.50 hrs 41 g Prusa MK3/S/S+

Pair of +1mm model feet (see description for model selection!)

low-profile-squash-ball-foot-2mm-x2_02mm_petg_mk3s_... .gcode

PET 0.40 mm 0.20 mm 3.53 hrs 41 g Prusa MK3/S/S+

Pair of +2mm model feet (see description for model selection!)

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