



Kitsch Mini Detangling Flexi Brush — Handle Extension



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Summary

Slip-on 3D-printed sleeve that extends the short handle of the Kitsch mini detangling flexi brush by ****60 mm****.

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Kitsch Mini Detangling Flexi Brush — Handle Extension

Slip-on 3D-printed sleeve that extends the short handle of the Kitsch mini detangling flexi brush by **60 mm**. Locks with an M3 bolt through the brush's existing Ø8 mm hanging hole.

FreeCAD model: kitsch_handle_extension.FCStd (document KitschHandle, objects Sleeve + Bushing — fully parametric via the build script, ask to resize).

Files

| File | What |

|---|---|

| kitsch_handle_sleeve.stl | The extension (100 mm long, oval grip, tapered socket) |

| kitsch_handle_bushing.stl | Spacer that fills the brush's Ø8 mm hole around the M3 bolt (print 2, keep 1 spare) |

Hardware (BOM)

1× **M3×12 socket-head bolt** — (wall + handle + wall $\approx$ 14 mm stack-up, plus nut engagement)

1× **M3 hex nut** (standard 5.5 mm across flats, 2.4 mm thick)

Printing

Orientation: sleeve mouth-up (flat end on the bed, opening facing up); bushing standing up. No supports needed — all side holes are true tangent teardrops (45° slopes, round bottoms).

Material: PETG recommended (bathroom humidity); PLA/ABS also work.

Settings: 0.2 mm layers, 3–4 walls, ≥ 25 % infill, 5–15 mm brim (100 mm tall part on a small footprint).

Fuzzy Skin optional.

The bolt/nut slots are 5.5 mm tall stadium slots, not round holes — this is intentional: it absorbs ± 2 –3 mm of seating-depth variance so the bolt always lines up with the brush's hole.

Assembly

1. Slide the brush handle into the sleeve mouth until it seats (~ 40 mm engagement, handle end bottoms out inside).

2. Drop the bushing into the brush's Ø8 mm hole.

3. Push the M3×12 through: socket-head side → bushing → nut pocket.

4. Seat the M3 nut in the hex-side pocket, tighten gently (hand-tight — don't crush the walls).

5. Hang it by the new Ø9 mm hole in the end.

Fit notes

Socket interior is tapered (mouth 27.1 x 10.75 mm, floor 23.7 x 10.25 mm) to clear the handle's 26->24 mm taper with ~0.5 mm to spare all round. Should slide on with light friction. If still tight, sand lightly or scale the sleeve +1 % in X/Y only.

If the handle seats a couple of mm shallow (curve wedging), that's fine — the slotted bolt holes cover it.

Model files



kitsch_mini_brush_handle_extension.3mf

☐ Pre-Made Plate



kitsch_handle_sleeve.stl

☐ Handle Sleeve



kitsch_handle_bushing.stl

☐ Handle Bushing



kitsch_handle_extension.fcstd

☐ Source FreeCAD File

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