

Prusa MK4 Maintenance

Regular maintenance checklist for the **Original Prusa MK4** (Nextruder). It follows Prusa's own guide: [Regular printer maintenance \(MK4/S, MK3.9/S\)](#).

How often

Interval	What
Before every print	Some items; see Prusa's guide linked above
Every 200 print hours	Axes (rods and bearings), belts, fans and the Nextruder (sections 2 to 8)
Yearly, or every 600 to 800 print hours	Electronics check (section 9)

Supplies

- Prusa Lubricant ([Prusa Lubricant Applicator Set](#))
 - Isopropyl alcohol (IPA) and paper towels
 - Compressed air, small brass brush, tweezers, toothpick
 - Allen keys, needle-nose pliers
 - Acetone (Smooth PEI sheet only)
- Do not lubricate the Z-axis lead screws or trapezoid nuts. Do not open the Nextruder gearbox unless Prusa support asks you to; the primary gear and idler bearings need no lubricant.

1. Before you start

- Note the print hours and firmware version so they can be logged with the maintenance.
- Unload filament.
- Clear any maintenance warning on the screen and note what it said ([Maintenance warning reference](#)).

2. General cleaning and hotend

- Brush or vacuum debris from the frame and under the heatbed.
- Heat the nozzle to 250 °C for 3 to 5 minutes, then scrub old plastic off with a brass brush. Keep the brush off the hotend cables.
- Let it cool for about 10 minutes, and confirm the temperature on the display before touching it.

3. Hotend thumb screws and nozzle seating (printer off and cold)

- Hand-tighten the hotend thumb screws (no tools).
- Confirm the nozzle has **no vertical play** and the heater block **does not rotate**.
- If a Nozzle Adapter is installed, confirm the nozzle is not lowered or loose ([Nextruder V6 Nozzle Adapter](#)).

4. Smooth rods and bearings (X, Y, Z)

- Roll each rod between your fingers to feel for grooves or scratches.
- Wipe each rod clean with a paper towel.
- Apply a small amount of Prusa Lubricant and run each axis end to end several times.
- Only if an axis still feels rough: remove the bearings, clean them with IPA, and regrease the inside with a small amount of Prusa Lubricant. A printable [LM8UU bearing greasing adaptor](#) makes this easier.

5. Belts and pulleys

- Remove debris around the pulleys and belts.

- Confirm each pulley set screw is tight on the **flat** of the motor shaft.
- Pluck the X and Y belts: they should give a low bass note.
- Measure and adjust tension per [Adjusting belt tension \(MK4/S, MK3.9/S, MK3.5/S, MK3/S/+\)](#), which covers the frequency method used on the MK4. Note the upper, lower and Y readings.

6. Fans

- Hold each propeller still and blow it out with compressed air. Never blow air into a running or free-spinning fan.
- Remove plastic threads with tweezers.
- Never bypass the fan RPM check. A slow fan throws an error on purpose.

7. Nextruder (drive gear area)

- Lift the idler nut and swing the idler out.
- Clear filament dust from the primary gear grooves through the side access hole (compressed air, brass brush or toothpick).
- Close the idler and reset the tension.
- If extrusion or hotend problems persist, see [Changing or replacing the Nextruder hotend](#) and [How to rebuild the Nextruder hotend](#).

8. Print sheets

- Clean each sheet with IPA; use dish soap and warm water for a deeper clean ([Print surface preparation](#)).
- Acetone only on the **Smooth** sheet, never on Textured or Satin. Never use alcohol or acetone on the PA Nylon sheet ([Flexible steel sheets guidepost](#)).

9. Electronics (yearly, or every 600 to 800 hours)

- **Power off and unplug** the printer.
- Check and reseat the connectors on the xBuddy board, Loveboard, heatbed, PSU and xLCD.
- Confirm screw-terminal connectors are fully tight.
- For Molex connectors, press the latch before pulling.

10. Firmware

- Update to the latest stable MK4 firmware if it is behind (download from Prusa's MK4 firmware page; install from a USB drive).

11. Recalibrate

- Run **Selftest / Calibrations & Tests** from the printer menu.
- Run the **Loadcell Test (Control > Calibration & Tests > Loadcell Test)**. If it fails, see [Loadcell troubleshooting](#); overtightened Nextruder bolts are a common cause.
- Confirm **Input Shaper** is enabled and that the slicer uses the Input Shaper profile ([Input Shaper article](#)).
- Print a small test part. The first layer is auto-calibrated by mesh bed leveling through the load cell, so just inspect it.

Afterwards

Record anything you found, what you did about it, and whether follow-up is needed. If the printer is not safe to use, tag it out of service: see **Shop Safety: Tagging a Tool Out of Service and Reporting It**.

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