

How to clean the Z-axis Screw

After using the 3D printer for an extended amount of time, the Z-axis Screw and bearing sleeve may become clogged with dust, causing the Z-axis to not work properly. This could result in layer lines appearing across your prints. The Z-axis may even end up needing replacements. In this article, we'll use the Sonic Mini 4K to demonstrate how to clean the Z-axis, including the bearing sleeve.

Dry Cleaning the Z-axis Screw:

Step 1: Remove the plastic cover, the resin vat, and the building plate.

Step 2: Make sure the building plate on the Z-axis has retracted completely. If it has not, click TOOLS, and then click MANUAL. Click on 10mm several times to retract the building plate.

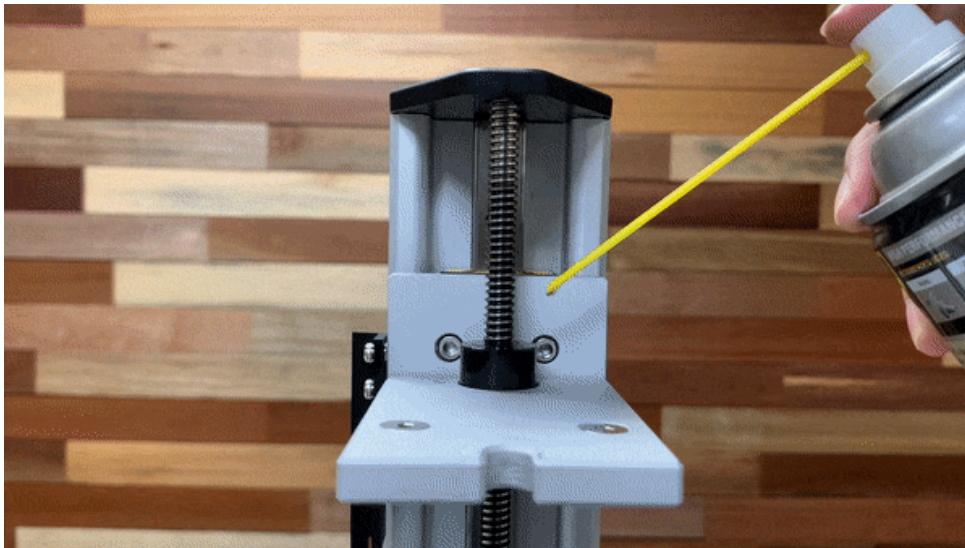
Step 3: Use kitchen paper towels to dry clean the Z-axis Screw. Spray sanitizing alcohol, if necessary.



Lubricating the Z-axis Screw:

Step 1: Run the Z-axis calibration test by clicking on TOOLS, Z CALIB, and then clicking on NEXT.

Step 2: Lubricate the bearing sleeve while the T-plate moves down every 20mm to 30 mm.



Ideal Lubricants

If the bearings and screws do not rotate smoothly, layer lines may appear on the surface of your prints. Therefore, we recommend applying the following lubricants below when cleaning the Z-axis:

- **WD-40 Specialist® Dry Lube with PTFE** - The best choice for Z-axis screw lubrication is the dry PTFE-based lubricant. The dry PTFE reduces friction and provides protection with no oily residue. It is only suitable for T8 lead screws.
- **SUPER LUBE® Synthetic Oil with PTFE** - The synthetic oil with PTFE particles bonds to surfaces of moving parts providing protection from friction, wear, and rust. It is safe on metal and plastic. It is only suitable for T8 lead screws.
- **Spindle Oil** - Another excellent alternative for lubricating the Z-rod is the spindle oil. Spindle oil can also be applied to the printer's bearings and screws so that they rotate well. It is suitable for T8 lead screws and ball screws.

What to avoid?

DO NOT use Lubricants with Rust Removal features. DO NOT mix WD-40 3-in-1 Lube with WD-40 Dry Lube with PTFE.