

6.3.8 Loading the filament into the extruder

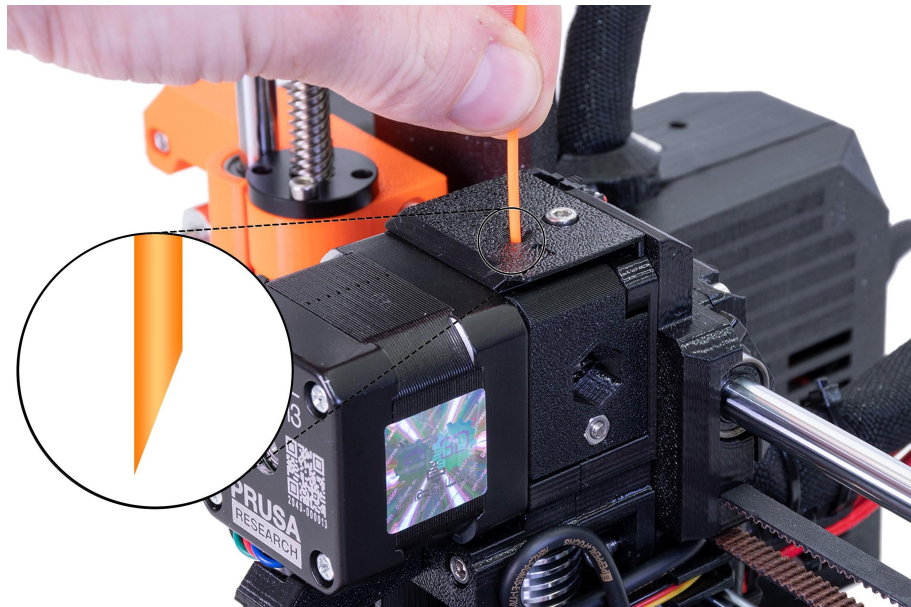
Before you can load the filament, the printer must be preheated for the correct filament type.

If you have the filament sensor or autoloading disabled in the settings, you can manually start the loading process from the LCD menu.

1. Press the control knob on the LCD panel to enter the main menu.
2. Insert the filament into the extruder.
3. Choose the **Load filament** option in the menu and press the button to confirm.
 - a. If the nozzle is not preheated, the preheat menu will be automatically shown. So select the filament type and confirm by pressing the control knob.
 - b. Wait for the nozzle to reach the target preheat temperature.
 - c. Insert the filament into the extruder and confirm loading by pressing the control knob.
4. The filament is then loaded to the extruder by the extruder stepper automatically.

If you have **the filament sensor and autoloading enabled**, preheat the printer and simply insert the filament into the extruder. Everything is automated from this point. Make sure that the filament tip is nice and pointy. The Z-axis will rise in case the current Z coordinate is less than 20mm from the print bed. This will ensure that there is always enough space for cleaning the nozzle.

You should cut the top of the filament as shown in the next picture.



Pict. 9 - Loading the filament into the extruder

If your filament is running out during a print, you can easily replace it with a new spool. Just go to the LCD menu, select the Tune submenu and press **Change filament**. The printer will

pause, the print head will go out of the print area, unload the old filament, and the LCD will guide you on what to do. You can even insert filament of a different color and make your prints more colorful. Check out chapter [11.3 Printing in color with ColorPrint](#) to find out how to make more intricate color models.



Read the chapter about our new [13.3 Filament sensor](#) and its functions.

6.3.8.1 Unloading the filament

This procedure is similar to the loading operation. Select **Unload filament** option from the menu. If the nozzle is not preheated, the preheat menu will be automatically shown. Select the filament type and confirm your selection by pressing the control knob. After the printer reaches the target temperature, press the knob to unload the filament. If the nozzle was preheated, the filament is unloaded immediately.

6.3.9 First layer calibration (kit only)

Now we will finally calibrate the distance between the tip of the nozzle and the probe.



Check if your print surface is clean! You can find instructions on how to clean it in the chapter [6.3.2 Preparation of the spring steel sheet](#). Don't forget to complete [6.3.5 Calibrate XYZ](#) chapter or **you can permanently damage the print surface!**

You can launch the calibration from **LCD Menu - Calibration - First layer cal.**

The printer will probe the bed and start printing a zig-zag pattern on the print surface. The nozzle will be at the height based on the SuperPINDA probe setting, it must not by any means touch the printing surface. If you have already calibrated the first layer and you run the process again, the printer will ask you whether you want to use the old Live Z value.