![FabLab Tampere]

Prusa XL

Slicing

Select "Expert mode" from the right upper corner of the Prusa Slicer to show all settings.

Select "Original Prusa XL – 5T 0,4 nozzle" or "Original Prusa XL – 5T 0,4 nozzle input shaper" as the printer.

Importing

You can import models that consists of multiple objects for multimaterial printing (easier way), or you can "paint" a single object for multimaterial printing.

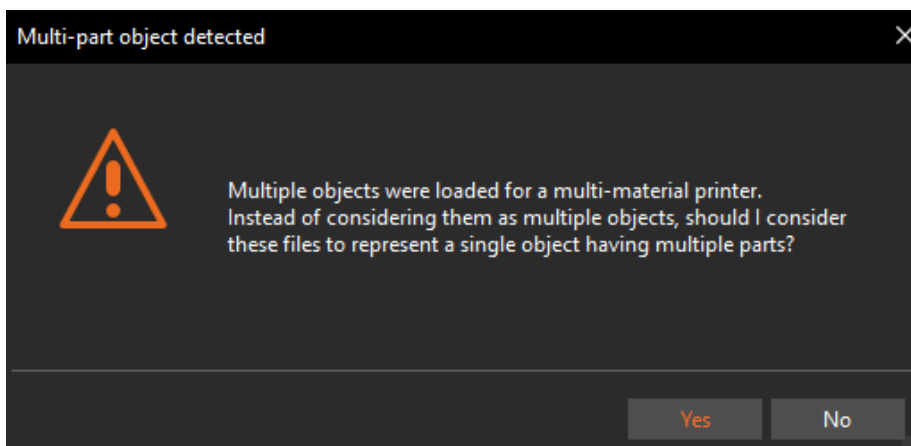When importing multiple objects at once the following will be asked:

Figure 1 Importing multiple objects at once.

If "Yes" is selected the objects are locked together.

Painting

A single object can be painted to a multi material or color print with the multimaterial painting tool located at the left side bar (shown in figure 2). This is not needed if the object is imported as a multimaterial object.

Select the wanted colors and extruders and paint using the different tools. Smart fill works well, and sensitivity can be adjusted with smart fill angle. Remember to check for imperfections and paint them using brush. Bucket fill works well for objects that are not connected to each other.
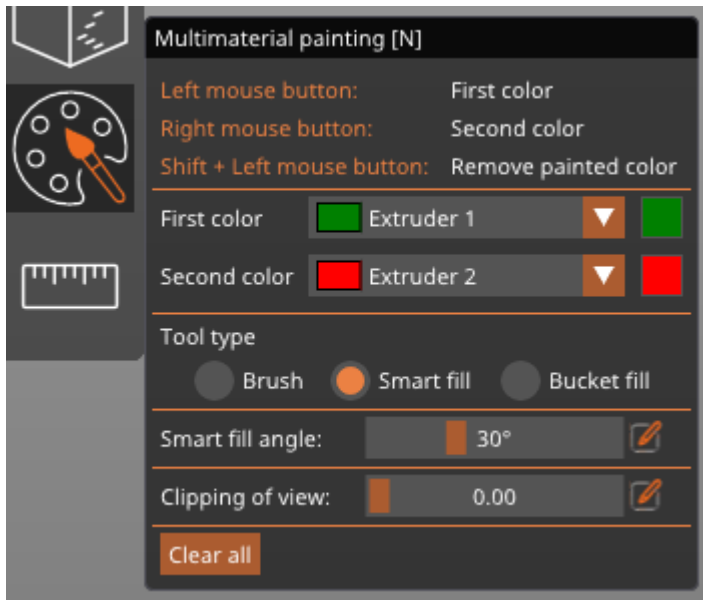

Figure 2 The multimaterial painting tool.

The colors can be changed for different extruders from the colored bars (red arrow in fig.3)

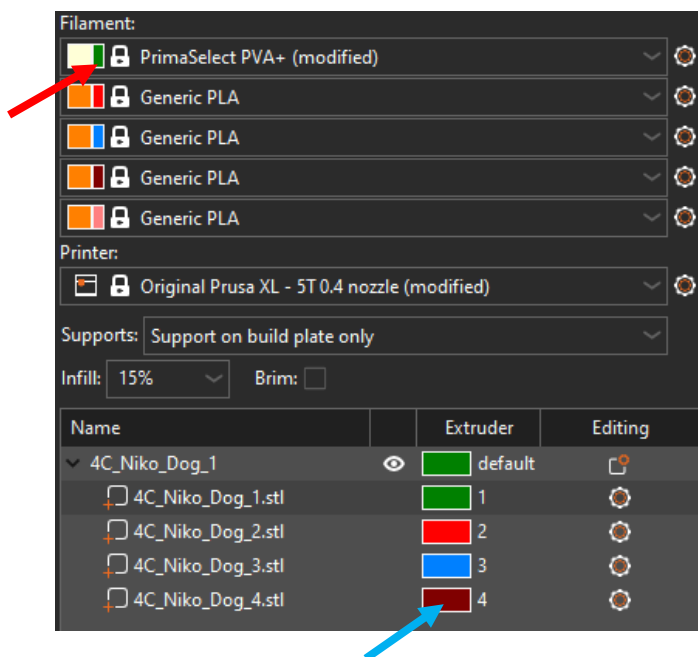The extruder for different objects can be chosen from the list (blue arrow in fig.3)

Figure 3 Filament settings

Print settings

The print settings that unique for XL can found from **print settings -> Multiple Extruders**

The settings are explained when moving mouse over the setting.

Wipe tower

- Wipe tower is not needed for most prints.
- If wipe is used with high prints it is recommended to widen the tower to improve adhesion.
- The no sparse layers -option is good for prints where multiple layers are with single color. The wipe tower must be positioned between the print and the back of the machine where tools are parked to prevent collision.

Soluble supports

- The soluble filament option can be found from filament settings -> advanced.
- PVA is very hygroscopic and using a filament dryer is recommended.
- PVA is very expensive. If possible, use the support material / raft interface extruder option to minimize PVA usage. With this option PVA is only printed to the interface for easy support removal.

Printer setup

Before printing make sure that the nozzles are clean from filament. They can be cleaned using a brass brush. Heating the nozzles for cleaning can be done from settings. For cleaning the tools can be manually removed from the dock by gently moving the tool to the left. This is illustrated in figure 4. Also check that the nozzle seals are clean (the red rubber slides).
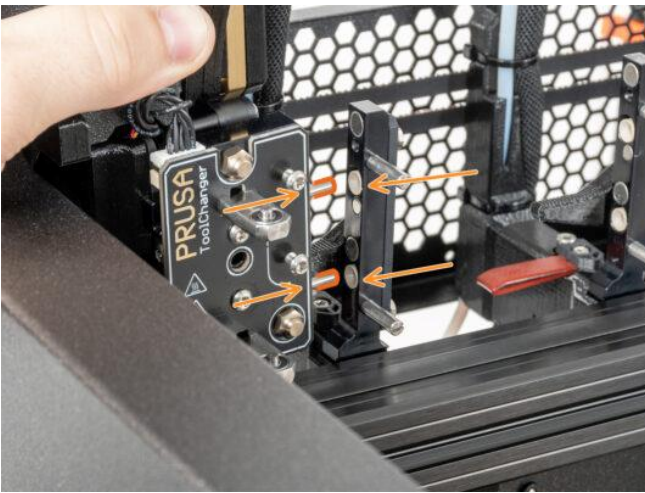

Figure 4 Tool removal from the dock.

Common problems

- Random layer shift or problems with tool changing.
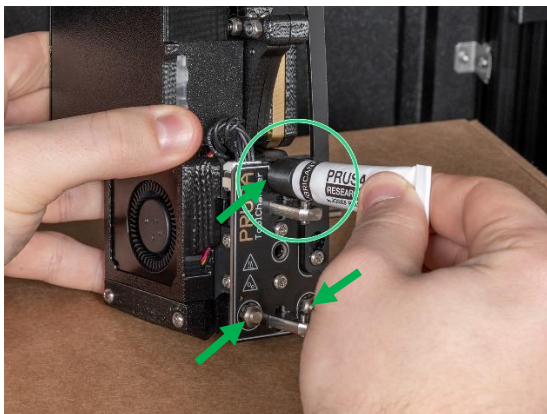   - Clean and grease the three coupler pins on each tool illustrated below.

Figure 5 Coupler pin greasing.

- Tool crashing at tool change

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- o Gently move the printer head back from the dock and manually remove the tool from the printer head to dock it. The tool can be removed from the printer head by sliding the locks, illustrated below, to the left.
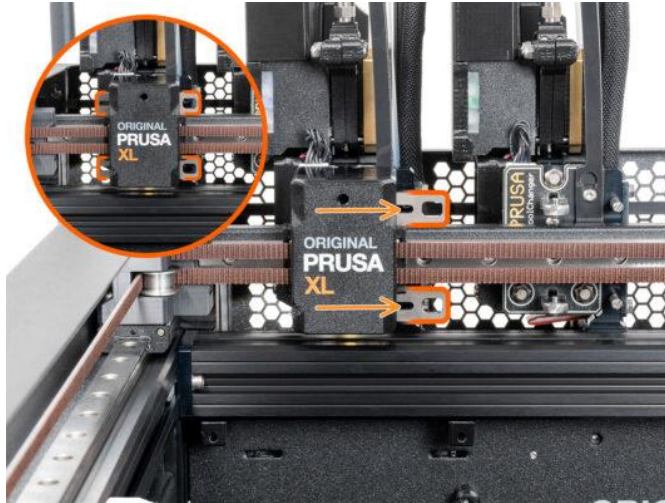

Figure 6 Removing tool from the print head.