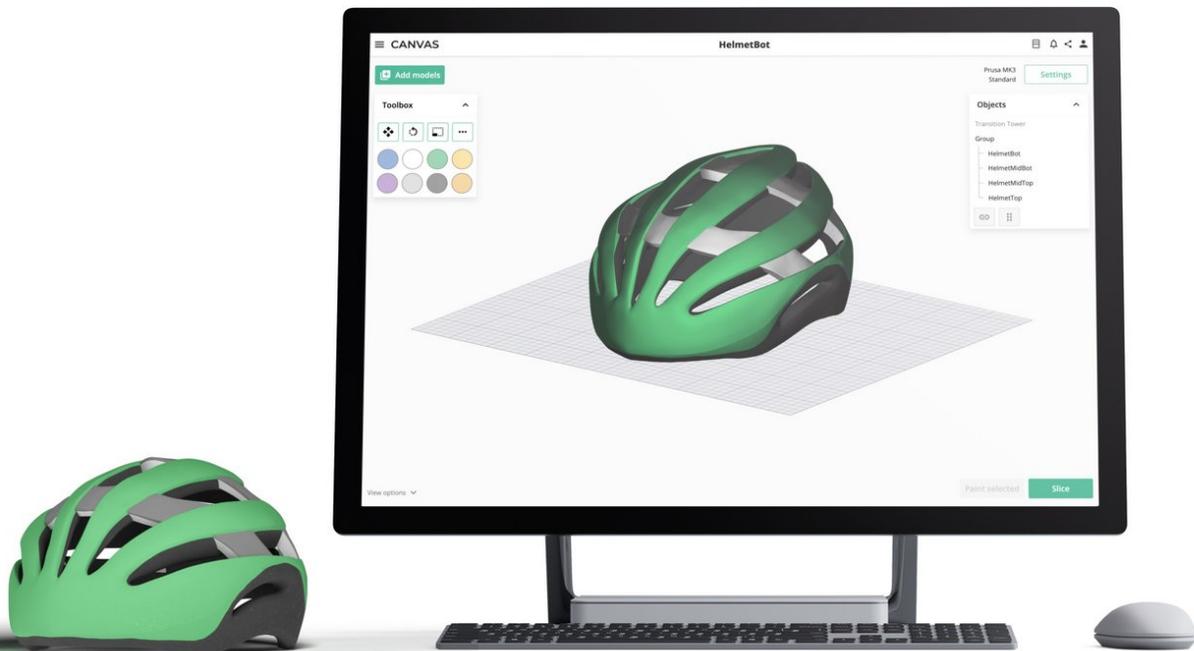




Discover Canvas

Get started with multi-material features in Canvas.

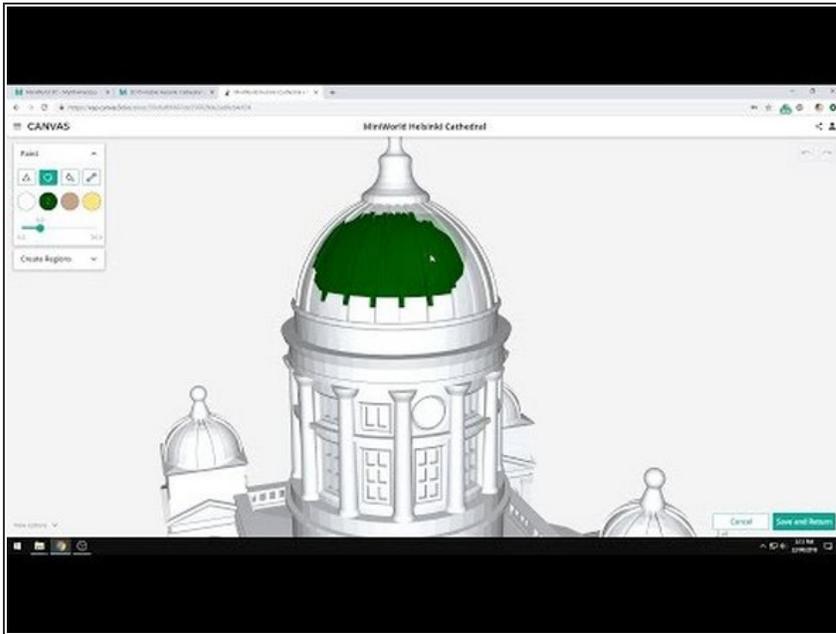
Written By: Mosaic Support



INTRODUCTION

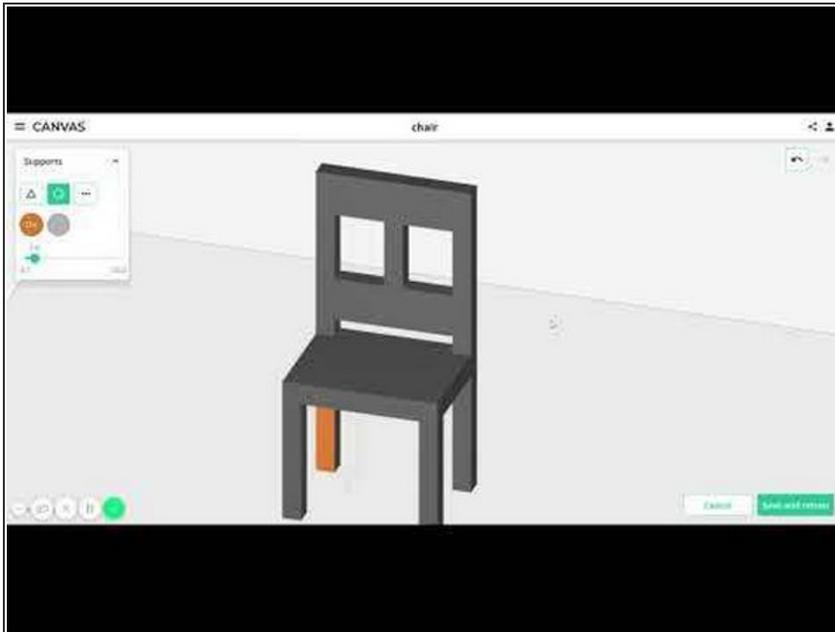
This article provides an overview of the features you can use in Canvas for Palette printing and more.

Step 1 — Model Customization: Painting and Stamping



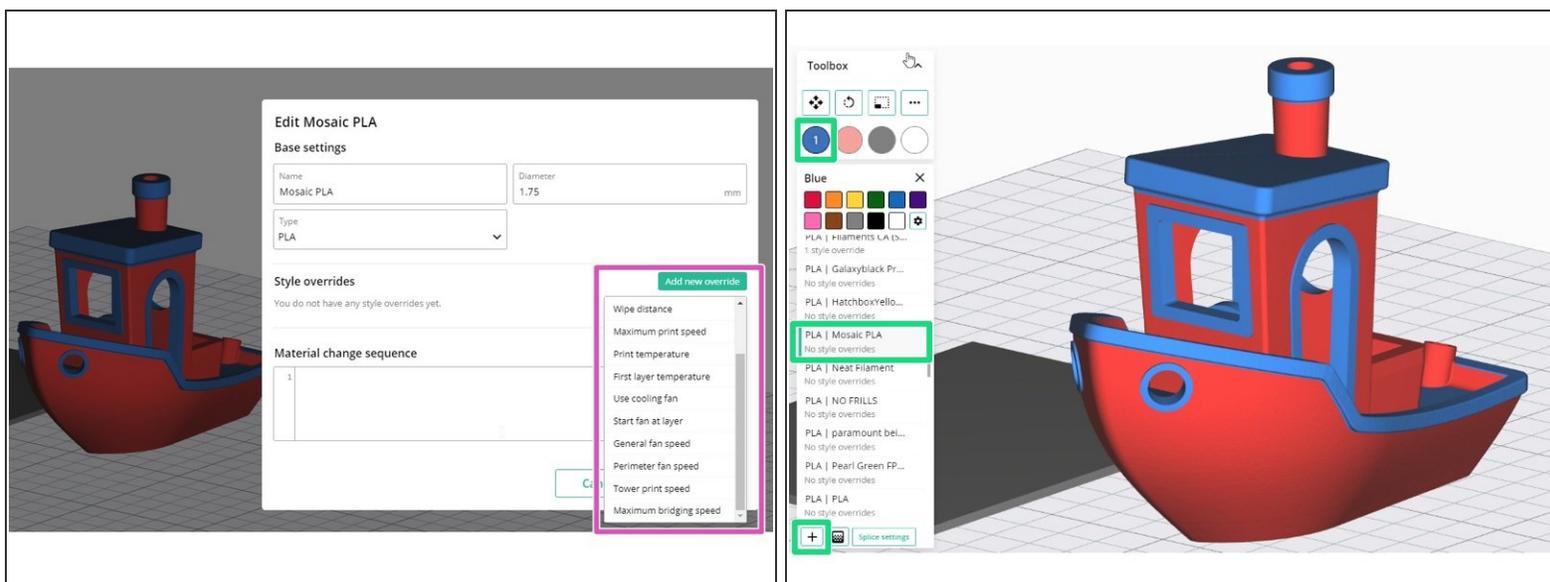
- Transform models for multi-material printing by painting them in Canvas. This is best with models that are single-body or comprised of one model.
- **Painting** allows for colored regions to be created directly on the model.
- Painting will not separate the model into multiple STLs, but the painted regions will be recognized as regions for color transitioning after slicing.
- **Stamping** allows for images to be placed on the model. [Check out these tips](#) on how to get better stamps onto models.
- Stamping behaves like an image on a light projector against an object. The stamp is best placed on flat faces of the model, and will "wrap" around the geometry. Multiple stamps can be used on a model.
- **Painting and stamping are available when you select an ungrouped model, and click Paint Selected.**

Step 2 — Custom Supports



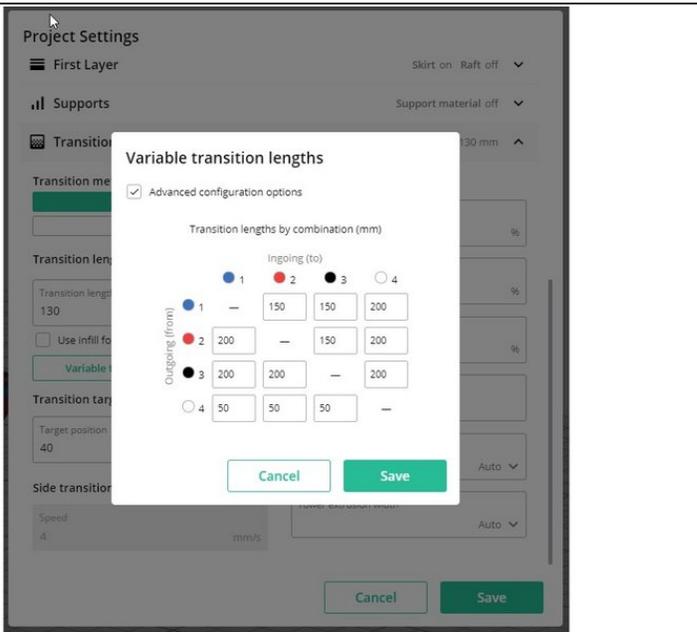
- **[Custom supports](#)** allows for support placement to be selected and placed manually, minimizing surface defects.
- Adding custom supports is similar to painting, where regions and polygons on the model can be selected. Supports will generate directly below the painted region towards the bed.
- **Custom supports are available under *Project Settings > Supports > Support Method: Custom > Configure Custom Supports***

Step 3 — Material Profiles and Settings



- Create [custom material profiles](#) that can be selected for each input drive on Palette.
- [Style overrides](#) allows certain settings to be used when that material profile is selected by a drive.
- Having custom material profiles allows for each filament brand or different finishes to have its own settings.
- **Manage material profiles from the main menu, or *Open Project > Select Tool/Color > Select or Add New Material.***

Step 4 — Variable Transition Lengths



- **[Variable transition lengths](#) allows for purge lengths to be specified between drives and colors used, assisting with reducing color bleed during printing.**
- Use variable transitioning to purge more for strong colors such as black and red, and reduce the purge amount when transitioning from light colors.
- **Variable transitioning is available when you *open a project > Project Settings > Transition > Variable Transitions.***

Step 5 — Side Transitions



- **[Side transitioning](#)** allows material to be purged off the bed or on a specified coordinate. This method of color transitioning can help reduce print time and waste.
- Side transitioning is compatible with [BigBrain3D](#) when using Palette in [connected mode](#).
- **Side transitioning firmware settings (purge location) are available when you edit a printer profile. Transition and purge amount settings are available under *Project Settings > Transition > Side transition*.**

Step 6 — Infill Transitions

Transition method

Transition tower

Side transitions

Transition length

Transition length

110

mm

Use infill for transitioning

- **Infill transitioning uses available infill as part of the transition allowing you to reduce the tower size, overall waste, and print time.**
- Canvas will attempt to use the most recent part of the infill as part of the transition sequence.
- This method is not recommended if soluble supports are used in the print.
- **This is available under *Project Settings > Transition > Use infill for transitioning***

Step 7 — PrinterScript for Custom Sequences

GENERAL EXTRUDER BED FIRMWARE TRANSITION SEQUENCES

These scripts can be used to customize the print's output at specific points in the print. This adds significant flexibility to CANVAS's slicing process, but is a particularly advanced feature and changes should be made with caution.

Refer to the [documentation](#) for more information.

Start of print

G-code PS ?

```
1 G90;
2 M115 U3.0.7 ; tell the printer latest firmware version available
3 G28 W ; home all without mesh bed level
4 G80 ; mesh bed leveling
5 G1 Y-3.0 F1000.0 ; go outside printing area
6 G1 X60.0 E9.0 F1000.0 ; intro line
7 G1 X100.0 E12.5 F1000.0 ; intro line
```

End of print

G-code PS ?

```
1 M104 S0 ; turn off temperature
2 M140 S0 ; turn off heated
3 M107 ; turn off fan
4 G1 X0 Y200 ; home X axis
5 M84 ; disable motors
```

Layer change

G-code PS ?

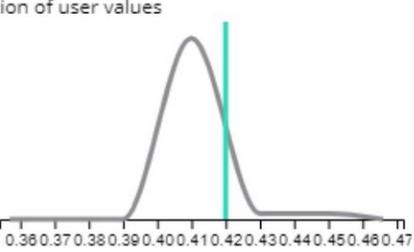
```
1 @printerscript 1.0
2 "; layer {{layer + 1}}, Z = {{nextZ}}"
```

- **PrinterScript** allows for advanced sequencing in starting scripts, ending scripts, side transitions, layer changes and material changes.
- Here's a [tutorial](#) on how PrinterScript can be used to add a pause when a layer is reached, in order to do a filament change. This expands the number of colors used in the print.
- This is available under **Printer Profiles > Select/Edit Printer Profile > Edit Printer > Sequences**.

Step 8 — Printer Tagging

Specify the width of a printed line. A good value to start with is the diameter of your nozzle while also ensuring that it is also greater than your layer height.

Distribution of user values



— Current value — Values used by other profiles

Extrusion width
0.42 mm

GENERAL EXTRUDER BED FIRMWARE TRANSITION SEQUENCES

Profile info

Name
Prusa i3 MK2

Printer model
Prusa MK25

Icon

- Prusa Mini
- geeetech prusa i3 pro b
- Prusa MK3
- Prusa MK3S
- BQ Prusa i3 Hephestos XL
- Prusa MK25**
- Prusa Mk2.5S
- Prusa MK2
- prusamk3s+
- Create new entry 'Prusa'

- **Printer tagging** aggregates data from other printer profiles. This helps inform what values or settings to use in the printer profile.
- Select from existing printer models, or create a new entry if the printer is not available.
- **Printer tagging is available under *Printer Profiles > Select/Edit Printer Profile > Edit Printer > Printer Model.***

Step 9 — Variable Layer Heights

Variable layer heights

Maximum layer height

150 % ▾

Supported step width

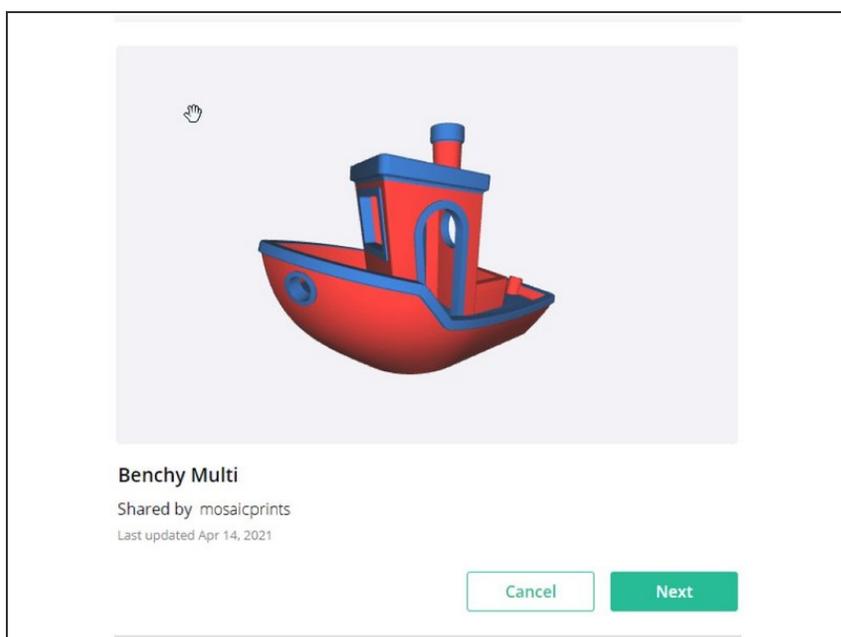
Auto ▾

Unsupported step width

0.2 mm ▾

- **Variable layer heights allows the slicer to automatically and smoothly change between a minimum and maximum layer height.**
- Minimum layer heights are used where parts have shallow slopes, such as on top of a sphere.
- Maximum layer heights are used for steep slopes or vertical walls.
- **This is available under *Project Settings > Layer > Variable Layer Heights*.**

Step 10 — Sharing



- **[Sharing](#) allows for printer profiles, style and setting profiles, material profiles and models to be shared with others.**
- Enabling sharing allows others to import the above mentioned with a URL.
- **Sharing is available within an open project, or from the Projects dashboard.**

Have a feature request or want to share feedback? Please visit [Canvas on Github](#) or [our contact page](#).
Thank you!