

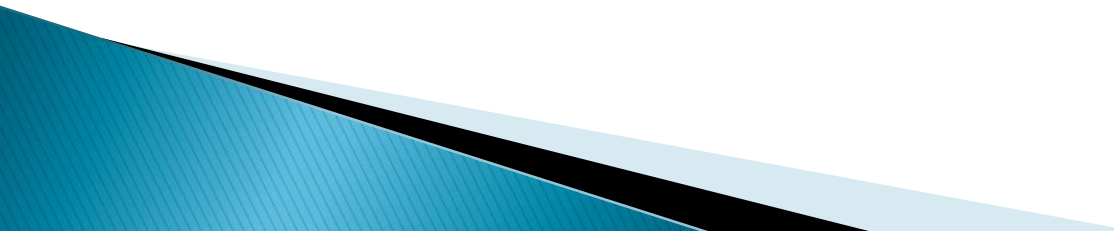
HYREL LLC

Advanced Printing Techniques:
Mastering Multi-Head Printing

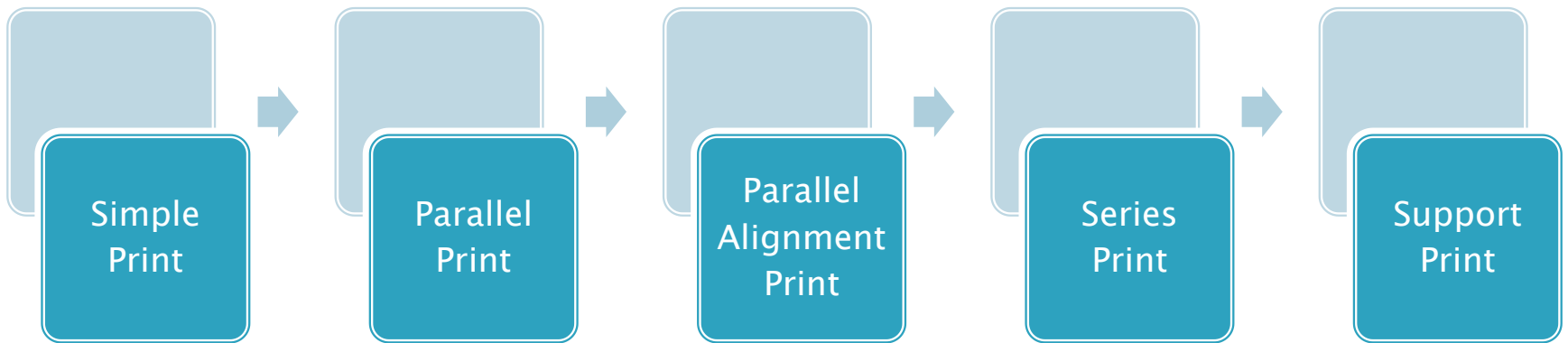
Mastering Multi-Head Printing

- ▶ In order to do proper multi-head printing, the user must follow this training from the beginning to the end.
- ▶ **WARNING:** Any deviation from this guide for first-timers will result in failed prints.

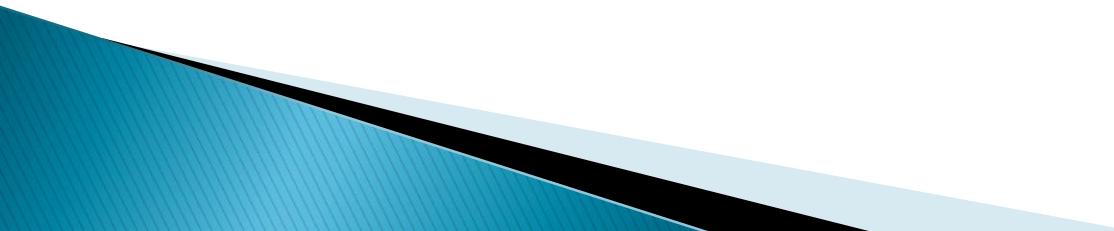
Roadmap

- ▶ Simple Print (Terra firma)
 - ▶ Aligning Print Heads (Z-Alignment)
 - ▶ Parallel Print, Performance Verification
 - ▶ Parallel Print Alignment Marks
 - ▶ Calibrate Offsets (X & Y Alignment)
 - ▶ Series Print
 - ▶ Support Print
- 

Roadmap



Simple Print – Overview

- ▶ Purpose: Make sure the printer is in tram and the printer is working properly.
 - ▶ This establishes a solid foundation for the rest of the steps toward advanced printing / fabrication.
 - ▶ We accomplish this by demonstrating we can print a simple, single color/material part without issues
- 

Simple Print – 1–By–1

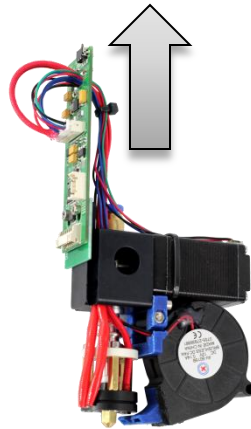
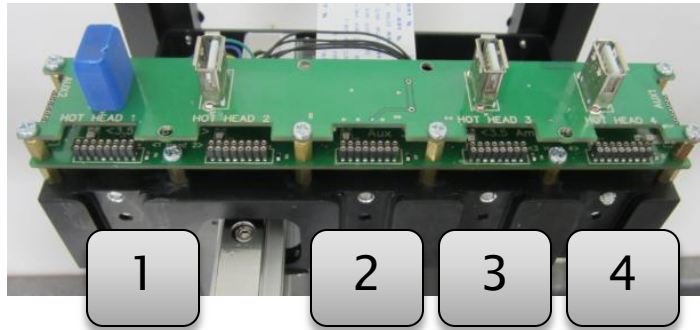
- ▶ Check Tram
- ▶ Install Head “Master” in slot 2
- ▶ Set Head of single extruder to bed
- ▶ Start with a *.gcode file you’ve printed, it must not be larger than 2” in the X–Axis
 - NOTE: The shorter / smaller the print, the better
- ▶ Print
- ▶ If *.gcode does not finish correctly, work backwards
 - Re-slice .stl file – If this works, continue from top
 - Adjust Slic3r settings / Recipes – Then re-slice, and continue from top
 - Re-orient/rotate/scale .stl file – Then adjust, re-slice, continue from top
 - Heal .stl file – Then Re-orient, adjust, re-slice, continue from top
 - Re-design model – Then heal, re-orient, adjust, re-slice, continue from top
- ▶ If *.gcode finishes correctly, remove the print from the build platform & move forward to next step.

Simple Print

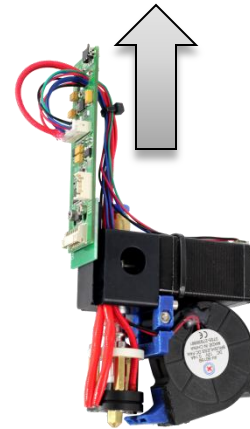
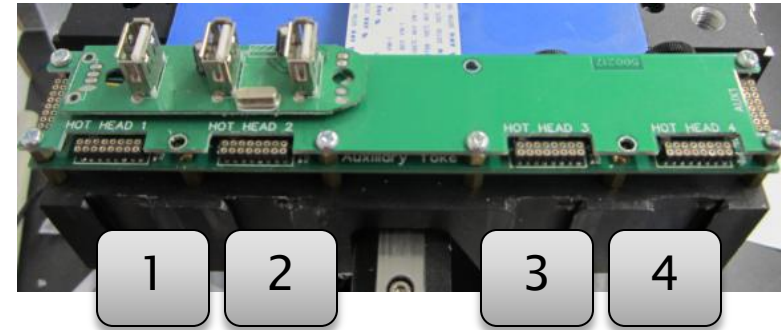
Install Head “Master” in slot 2

Physical
Head Slot

1x3 Yoke



2x2 Yoke



Simple Print

Load G-Code

The screenshot displays the Simple Print software interface. The main window is divided into several sections:

- Top Bar:** Contains icons for File, Run Job, Kill job, Show, Light, Motor Functions, and Settings. On the right, there are buttons for ALARM and RESET.
- File Menu:** The 'File' menu is open, showing options: Open, Open Recent, Save, Save as, Save JOB, Import, Export, Send File To Network Folder, ZIP and Send To USB, Email, Post To Server, Open Folder Browser, Update Firmware, and Exit. A sub-menu is visible for 'Open', listing: STL File, G-Code (highlighted), DXF, Job, and STP File.
- Right Panel:** Contains tabs for STL Mgr, Project Composer, GCode Editor, and 3DVisual. Below these are buttons for File, Edit, and Slice. The 'Slice' button is highlighted. Below the buttons are settings for 'Stl object Orientation' and 'Slic3r settings'. The 'Slic3r settings' section includes:
 - Scale:** X=25.40, Y=25.40, Z=25.40. A checkbox for 'Lock aspect ratio' is checked, with a value of 'M 25.4'.
 - Translation:** X=100.00, Y=100.00, Z=0.00.
 - Rotation:** X=0.00, Y=0.00, Z=0.00. A checkbox for '5 Deg Angle Lock' is checked.
- Bottom Panel:** A log window titled 'Show in Log:' with radio buttons for Commands, Infos, Warnings, and Errors. The log shows the following messages:

```
15:44:56.437 Hyrel Printer Found, SW Rev>Hy: 1.85
15:44:56.471 >IN: 0: Buffer Flushed
15:44:57.598 >ER: 91: 255: HEATER Unit: Heater over temperature limit - actualTemp=111.6 limit=110.0 (tot
15:44:57.629 >ER: 91: 255: HEATER Unit: Heater over temperature limit - actualTemp=111.6 limit=110.0 (tot
>Hy: 1.85 - Idle 20 FPS
```



Simple Print

Turn on the Heat, & when ready, Print


The screenshot displays a 3D printing control interface with the following components:

- Top Menu Bar:** File, Run Job (highlighted with a red box), Kill job, Show, Light, Motor Functions, Settings, ALARM, and RESET.
- Sub-Menus:** 3D View, Control, Pictures, Web Browser, Aux Editor, Temperature Curve, Slic3rS, STL Mgr, Project Composer, GCode Editor, and 3DVisua.
- Motion Control Panel:** Includes X, Y, Z, and FINE MOVE buttons. X and Y axes show coordinates (X=0.0, Y=0.0). Z axis shows Z=0.00. Directional buttons for -X, -Y, +X, +Y, -Z, and +Z are present. A 'HOME ALL' button is also visible.
- Advanced Settings Panel:** Includes a 'Layer Height' setting (0.300) and an 'Enable Z Calibrat' button.
- Advanced Head Control Panel:** Features multiple temperature control sections. The first section shows 'T=xxx' and 'MK1' with a '235 ON' button (highlighted with a red box). The second section shows 'T=xxx' and 'MK1' with a '235 ON' button (highlighted with a red box). The third section shows 'T=xxx' and 'Hot Bed' with a '110 ON' button (highlighted with a red box).
- GCode Editor Panel:** Displays a list of G-code commands for a skirt, including G1 X56.730 Y37.186 E0.01839 ; skirt, G1 X57.010 Y36.966 E0.01851 ; skirt, G1 X60.580 Y34.466 E0.22650 ; skirt, G1 X60.870 Y34.286 E0.01774 ; skirt, G1 X61.180 Y34.116 E0.01837 ; skirt, G1 X65.130 Y32.276 E0.22646 ; skirt, G1 X65.450 Y32.146 E0.01795 ; skirt, G1 X65.780 Y32.046 E0.01792 ; skirt, G1 X69.990 Y30.916 E0.22653 ; skirt, G1 X70.340 Y30.836 E0.01866 ; skirt, and G1 X70.690 Y30.786 E0.01837 ; skirt.
- Find Panel:** Includes a search bar, a 'Find' button, and a 'Replace' button. The 'Replace' button is highlighted with a yellow box.
- Bottom Panel:** Includes an 'Auto Prep Gcode' button (highlighted with a yellow box), a 'Set All G1 Speed To >' button (highlighted with a yellow box), and a '1500' value field.

Aligning Print Heads – Overview

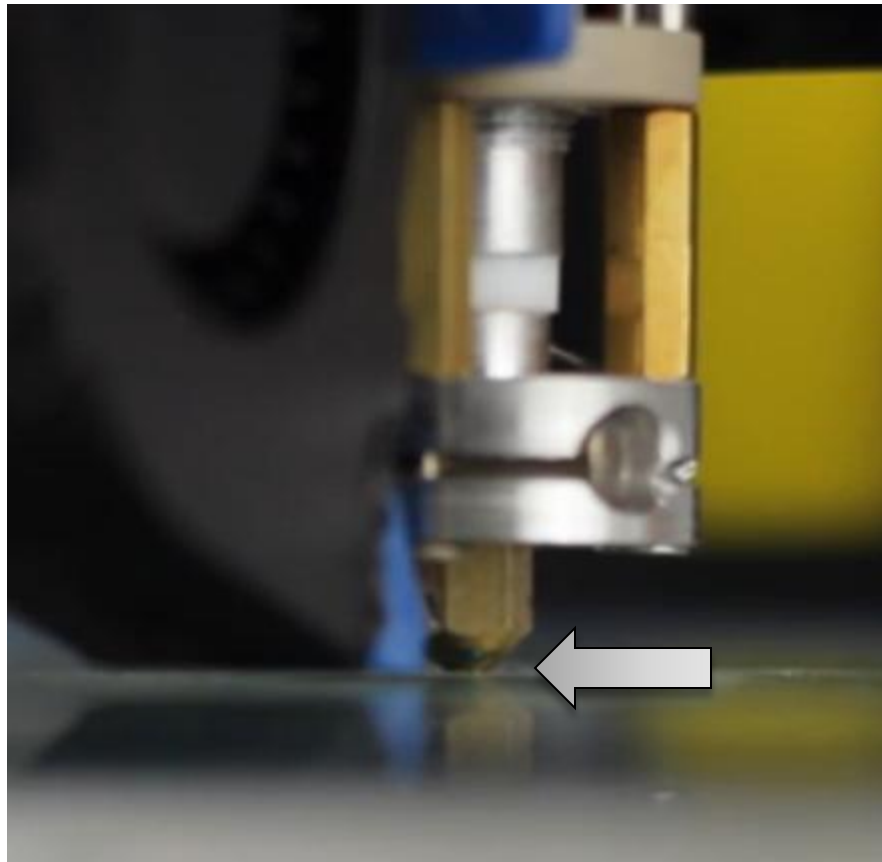
- ▶ Purpose: Certify each print head is level to each other in the Z-Axis.
 - ▶ In order to setup perfect extruder head parallel prints, we need to confirm the exact position of the nozzles relative to each other in the Z-Axis are set to the bed.
 - ▶ We accomplish this by designating the left-most extruder head as the “Master”, and all heads to the right as the “Clones”, then physically setting all nozzle heights to the height of the “Master”
- 

Aligning Print Heads – 1-By-1

- ▶ With the Head “Master” in slot 2
 - ▶ Set Head “Master” to the bed
 - ▶ Loosen the PCA screws on “Clone”
 - ▶ Install Head “Clone” in slot 3, do not tighten the Set-screws
 - ▶ Gently press down on the extruder body of the “Clone” extruder until the nozzle touches the bed
 - ▶ Tighten the Set-screw
 - ▶ Set the Spacer Board
 - ▶ Tighten the PCA screws on “Clone”
- 

Aligning Print Heads

Set Head “Master” to the Bed

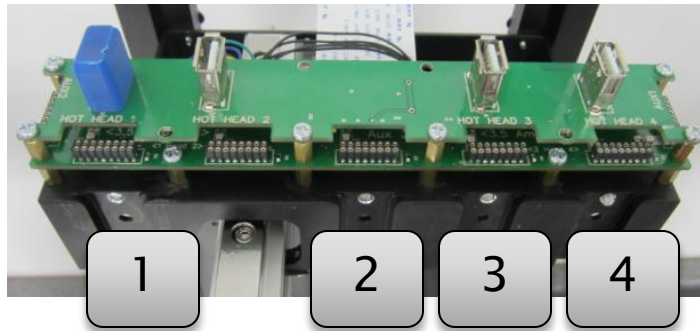


Aligning Print Heads

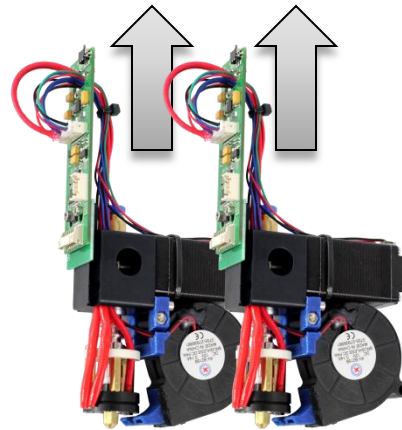
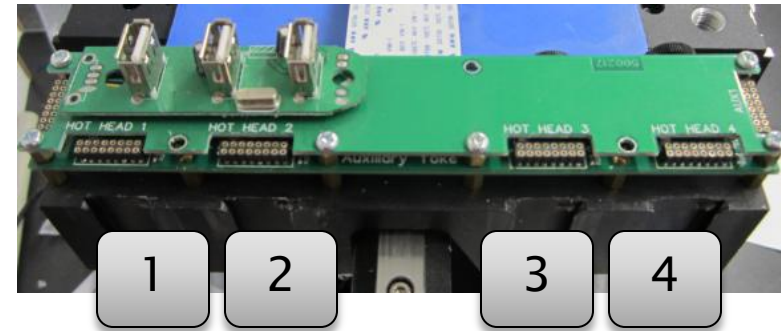
“Clone” Extruder installation into slot 3

Physical
Head Slot

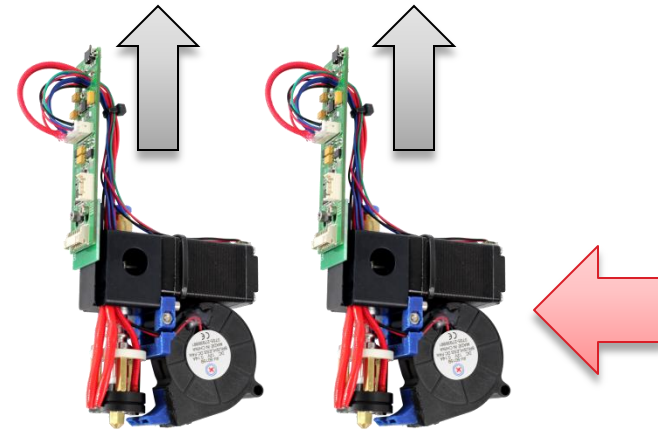
1x3 Yoke



2x2 Yoke



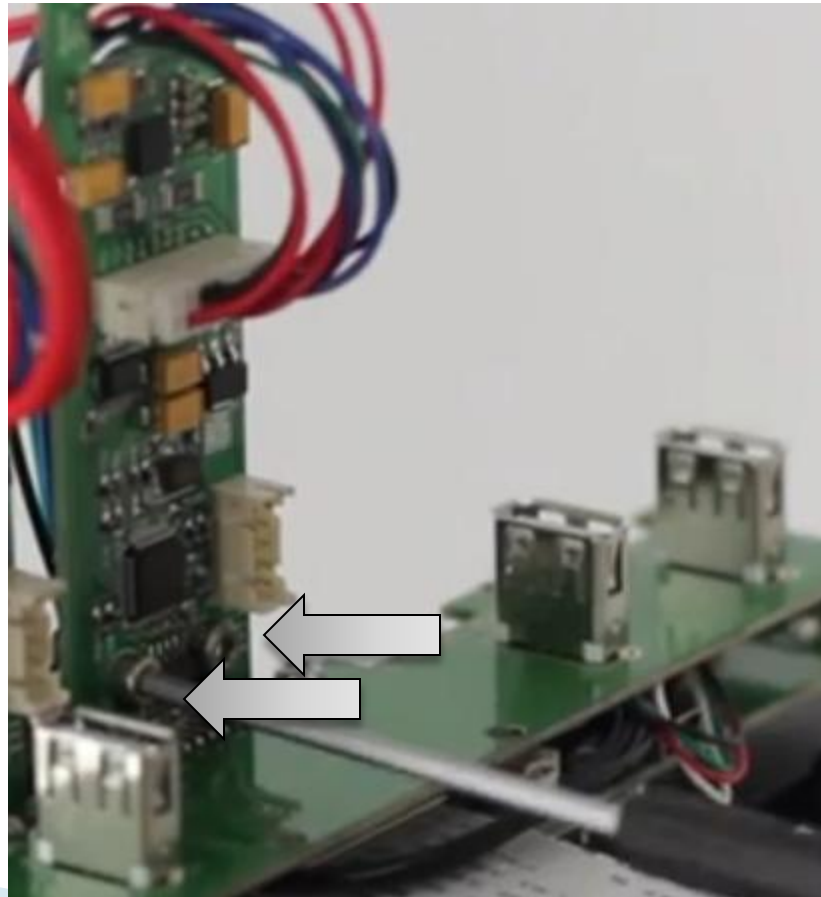
Master Clone



Master Clone

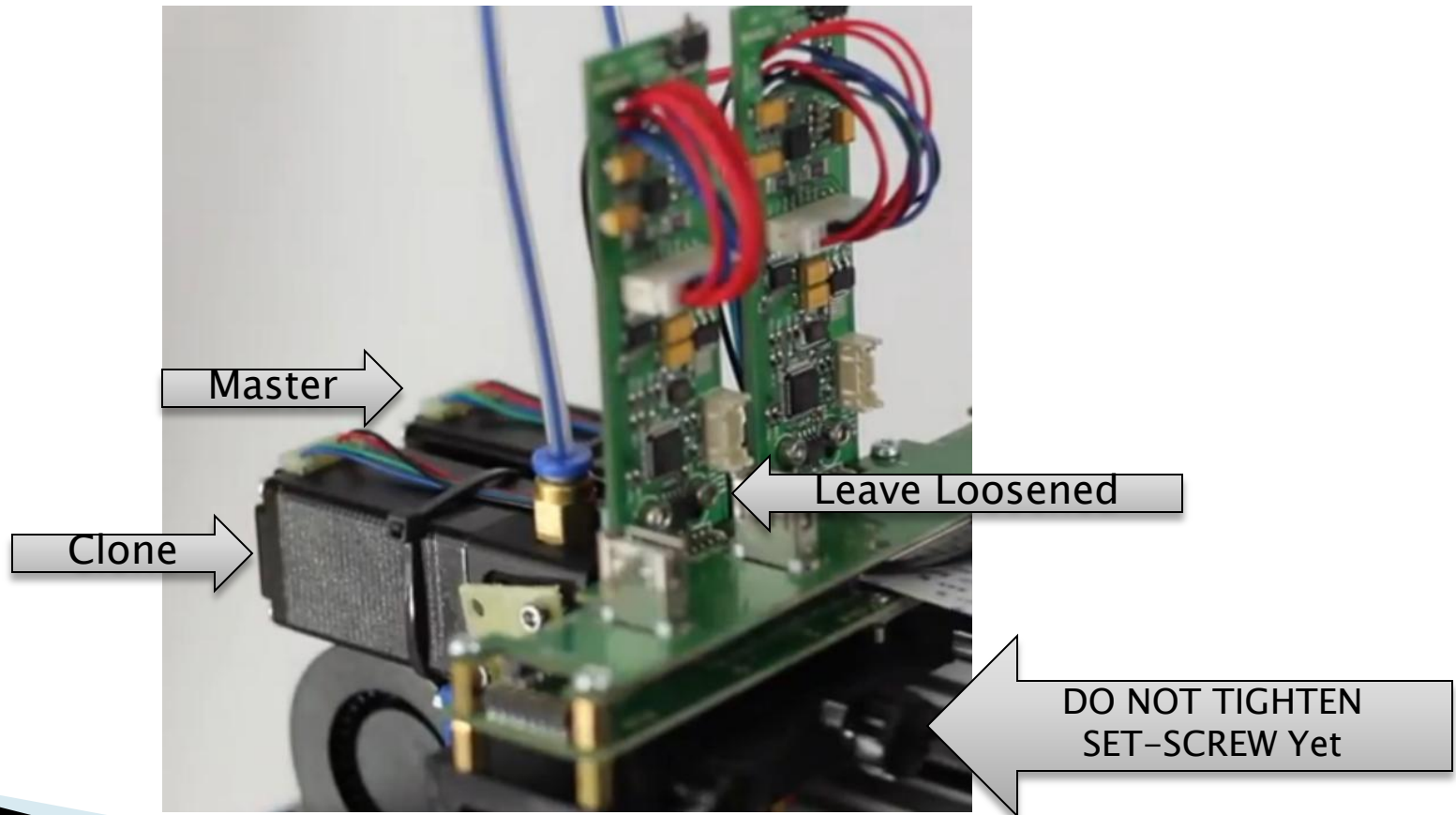
Aligning Print Heads

Loosen the PCA screws on “Clone”



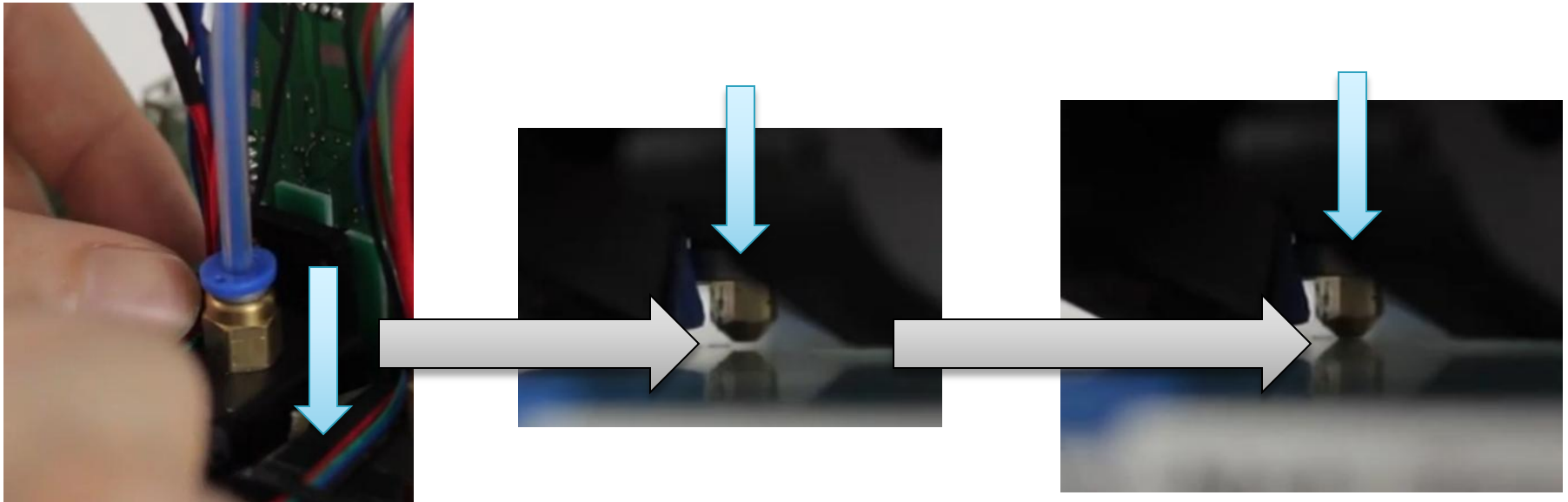
Aligning Print Heads

Install Head “Clone” in right-hand slot



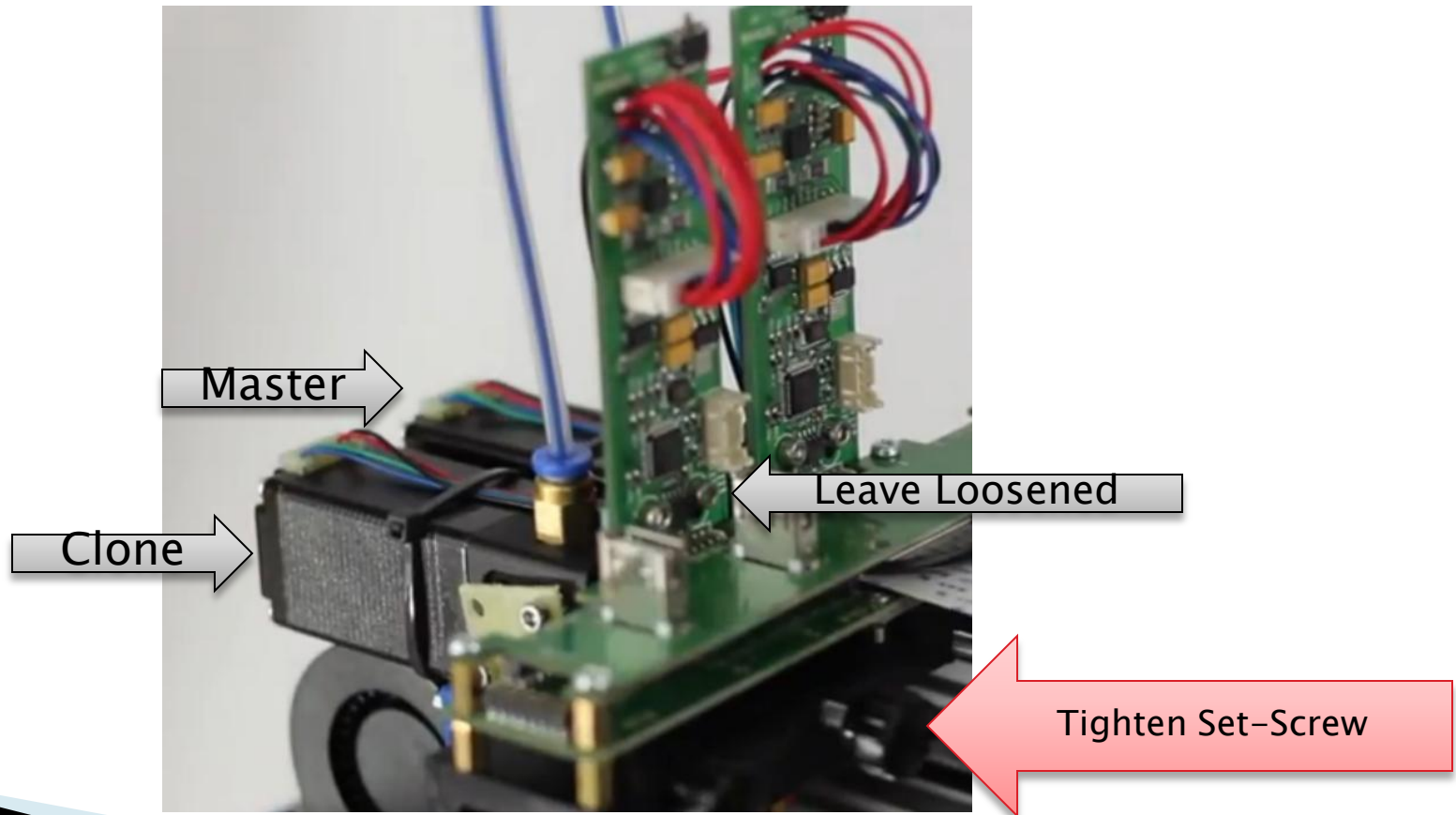
Aligning Print Heads

Gently press down on the extruder body of the “Clone” extruder until the nozzle touches the bed



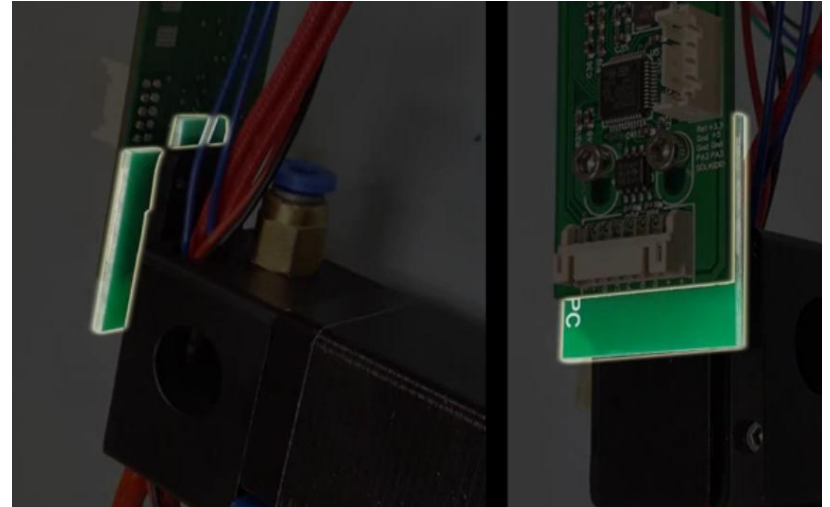
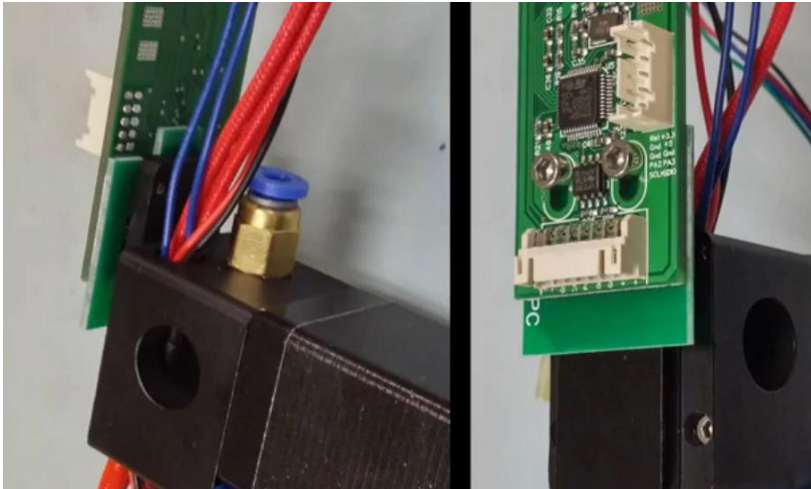
Aligning Print Heads

Tighten the Set-screw



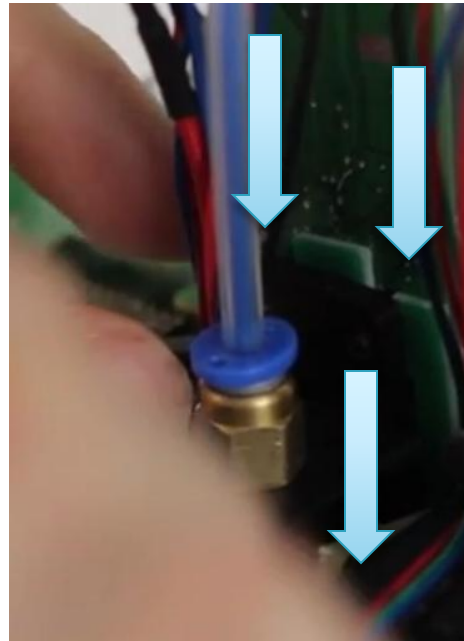
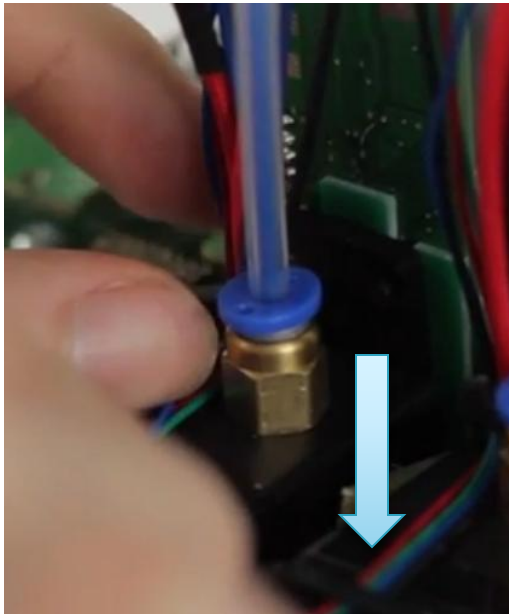
Aligning Print Heads

Set the Spacer Board (1 of 2)



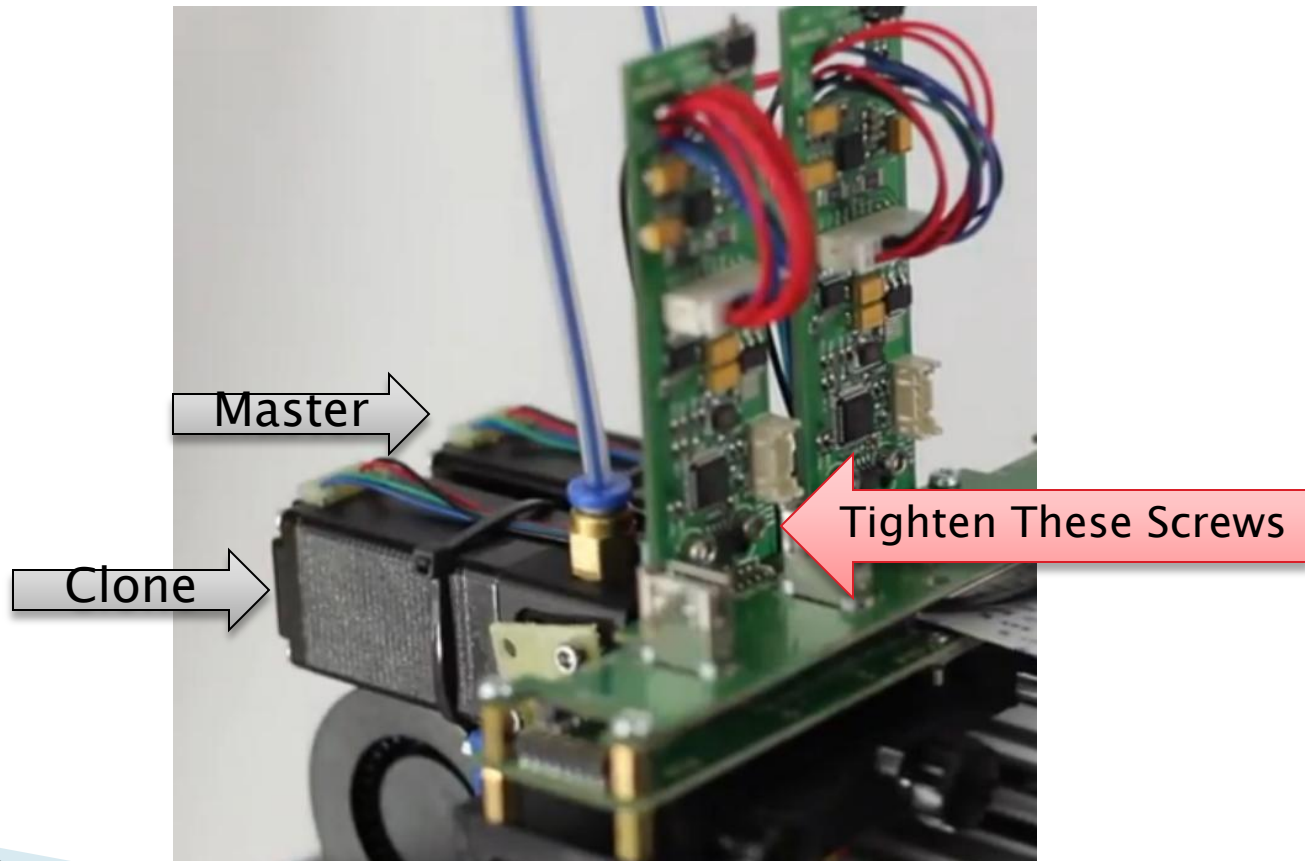
Aligning Print Heads

Set the Spacer Board (2 of 2)

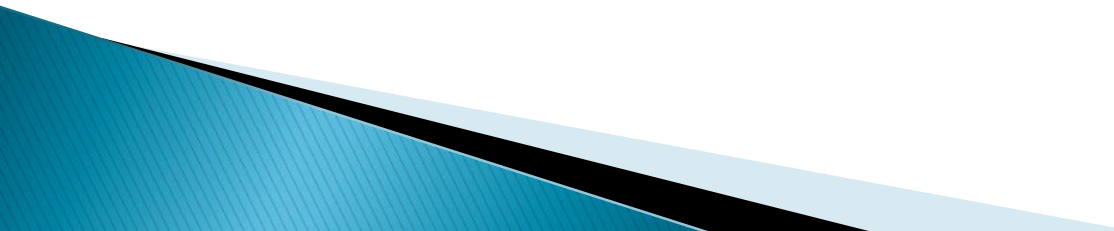


Aligning Print Heads

Tighten the PCA screws on “Clone”



Parallel Print – Overview

- ▶ Purpose: Print multiple copies of a single part with multiple extruder heads.
 - ▶ Doubling, Tripling, or even Quadrupling the printing ability of the HYREL machine will increase the user's production of usable parts within the same time it takes to print a single part.
- 

Parallel Print – 1–By–1

- ▶ Align Heads ← **Mandatory**
- ▶ Check Tram
- ▶ Use same *.gcode file as the Simple Print
 - ▶ NOTE: The shorter / smaller the print, the better
- ▶ In the “Clone” extruder settings, set to “Head Alias 12”.
- ▶ Print

- ▶ If *.gcode does not finish correctly, more than likely, the heads are out of alignment. Re-align the heads, and retry.
- ▶ If *.gcode finishes correctly, remove the prints from the build platform & move forward to next step.

Parallel Print

Set Extruder 2 to “Clone” Extruder 1
→ Go to the “Control” tab

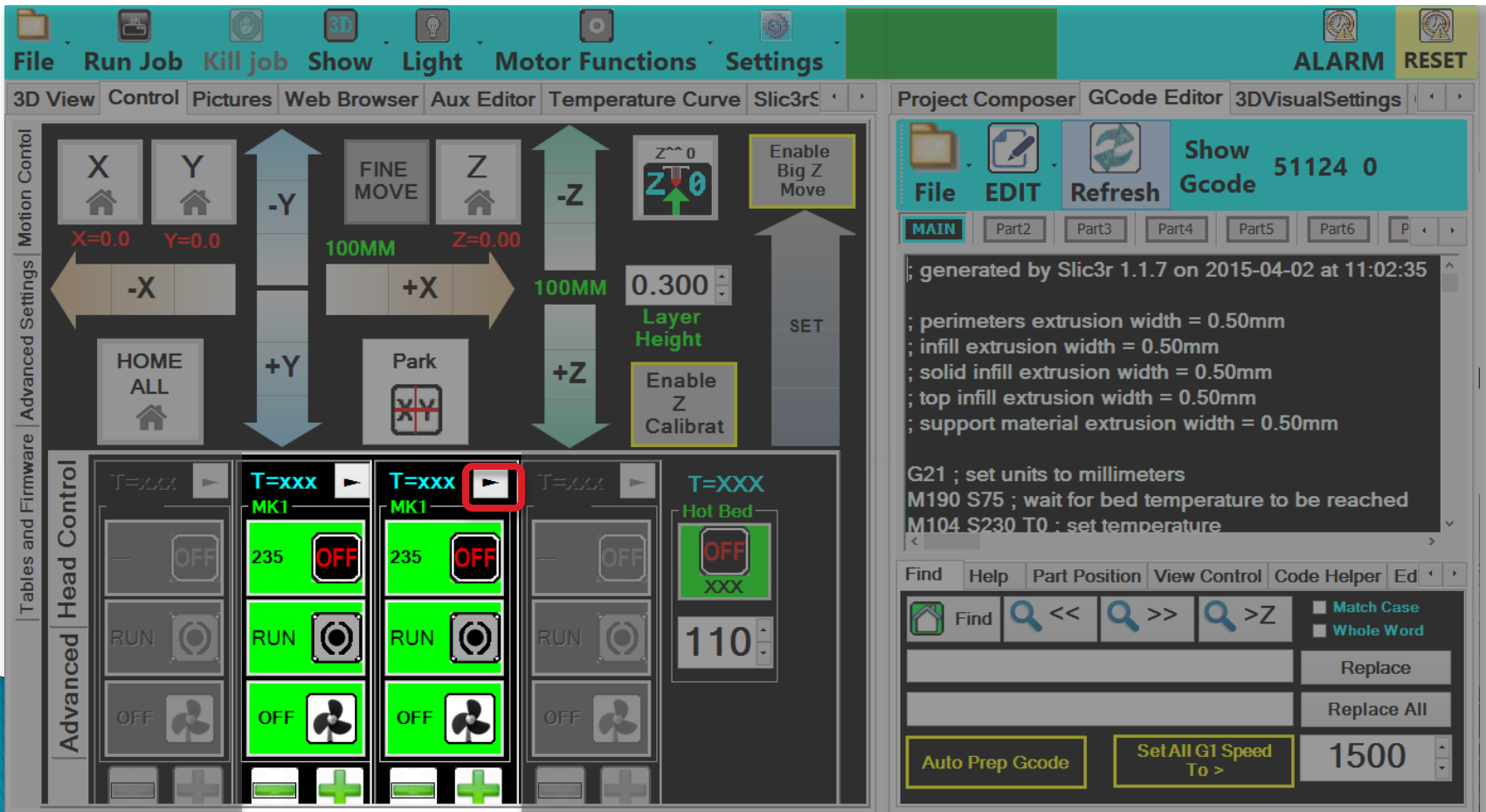
The screenshot displays the Slic3r software interface, which is used for managing 3D printing jobs. The interface is divided into several sections:

- Top Bar:** Contains menu items like File, Run Job, Kill Job, Show, Light, Motor Functions, and Settings. On the right, there are buttons for ALARM and RESET.
- Control Tab:** This tab is highlighted with a red box. It contains various controls for the printer, including:
 - Motion Control:** Buttons for X, Y, Z, and their respective negative and positive directions (-X, -Y, -Z, +X, +Y, +Z). It also includes a 'HOME ALL' button and a 'Park' button.
 - Advanced Settings:** A section for fine-tuning the print, including 'FINE MOVE' and 'Z' axis controls.
 - Head Control:** A section for managing the extruders, showing temperature (T=xxx) and status (OFF) for each.
- GCode Editor:** A section on the right side of the interface, showing the generated GCode. It includes a 'Show Gcode' button and a 'Refresh' button. The GCode is generated by Slic3r 1.1.7 on 2015-04-02 at 11:02:35. The GCode includes commands for setting units to millimeters, waiting for bed temperature, and setting temperature.

Parallel Print

Set Extruder 2 to “Clone” Extruder 1

→ Click the  button to get to the “offsets”



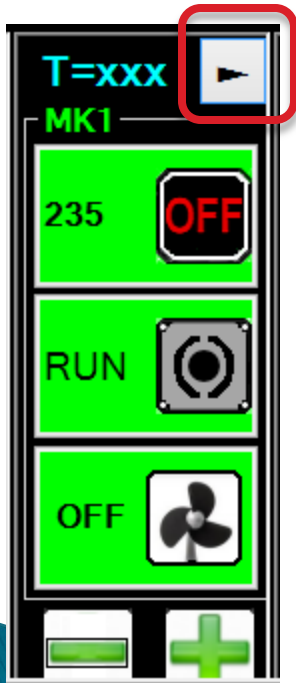
The screenshot displays the Slic3r software interface, specifically the 'Offsets' tab for Extruder 2. The interface is divided into several sections:

- Top Bar:** Contains menu items like File, Run Job, Kill Job, Show, Light, Motor Functions, and Settings. On the right, there are buttons for ALARM and RESET.
- Project Composer:** Shows the current project name (Part2) and a 'Show Gcode' button with the value 51124 0.
- GCode Editor:** Displays the generated G-code, including settings for extrusion width (0.50mm) and temperature (110°C).
- Advanced Settings:** This section is highlighted and contains various controls for the printer's operation, including:
 - Motion Control:** Buttons for X, Y, Z, and fine moves, along with a 'HOME ALL' button.
 - Advanced Settings:** Includes a 'Layer Height' of 0.300 and a 'SET' button.
 - Head Control:** Features a 'T=xxx' label, a 'MK1' button, and a 'RUN' button. A red box highlights the 'T=xxx' label.
 - Hot Bed:** Includes a 'T=XXX' label, a '110' temperature display, and a 'RUN' button.

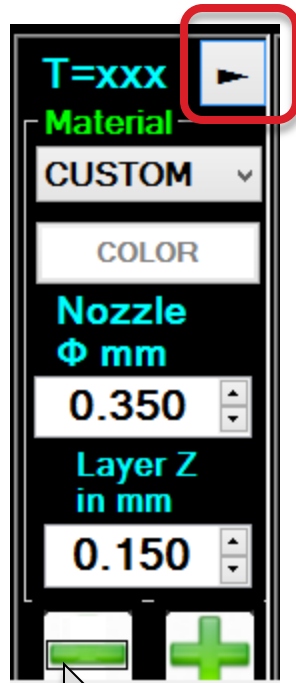
Parallel Print

Click the  button to get to the “offsets”

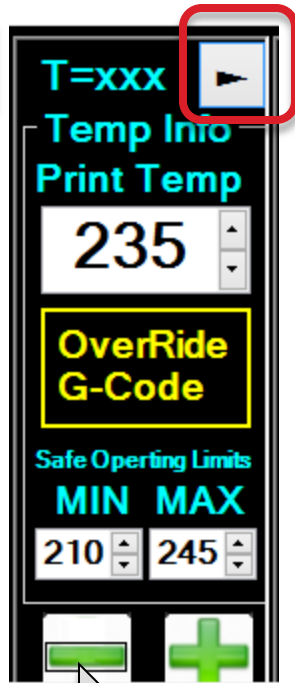
Extruder
Main



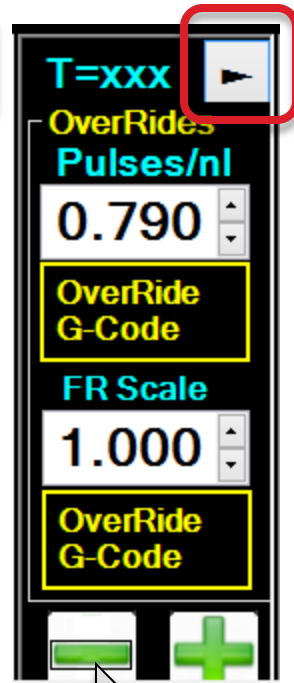
Extruder
Material



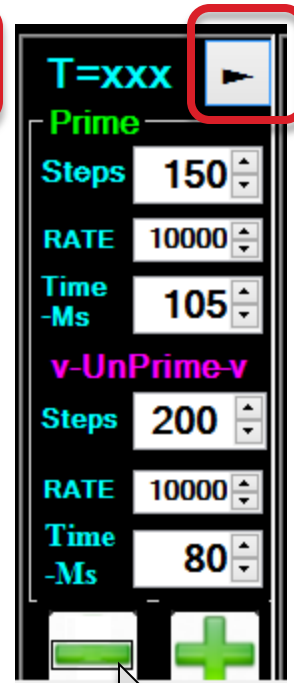
Extruder
Temp



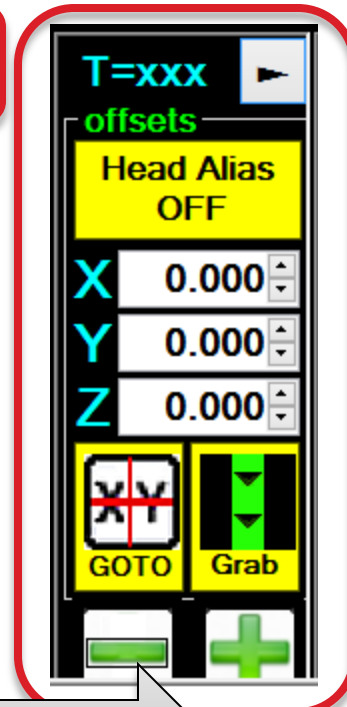
Extruder
Flow



Extruder
Prime

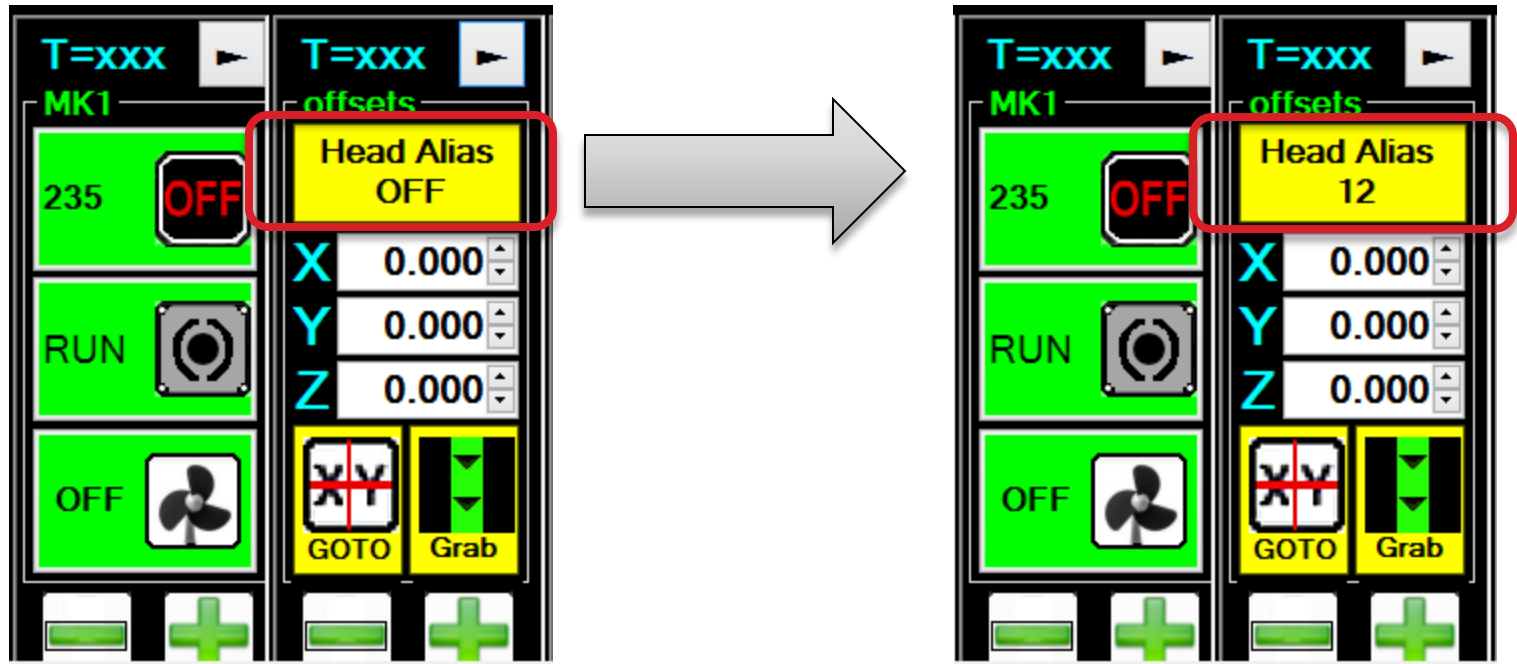


Extruder
Offsets



Parallel Print

In the extruder “offsets” settings,
Click to set to “Head Alias 12”.
This “clones” Extruder 1.

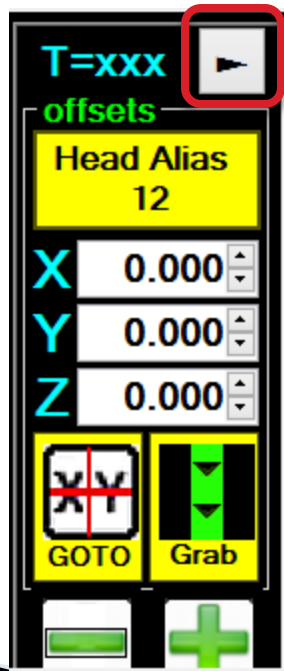


WARNING: Cloning the head(s) is not persistent and will not save when you close Repetrel and/or shut down the machine.

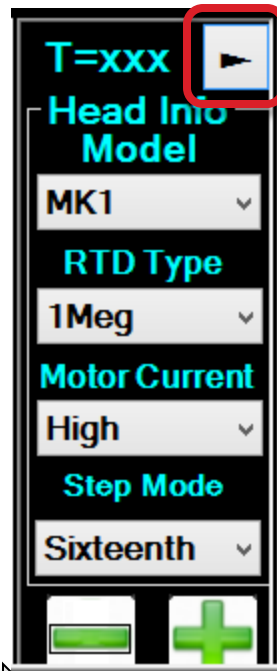
Parallel Print

Click the  button to return to the “Extruder Main” Sub-menu.

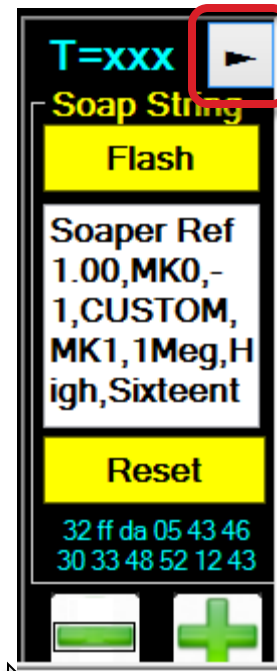
Extruder
Offsets



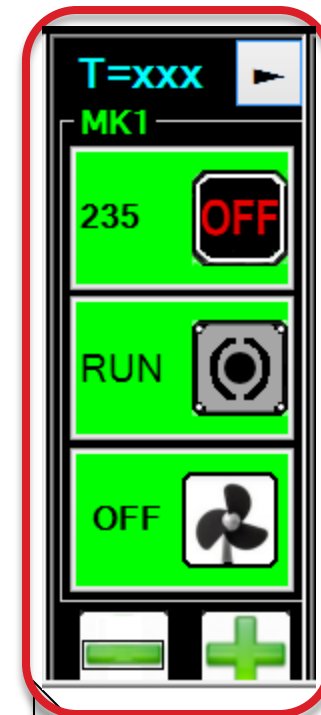
Extruder
Head Info



Extruder
Soap String

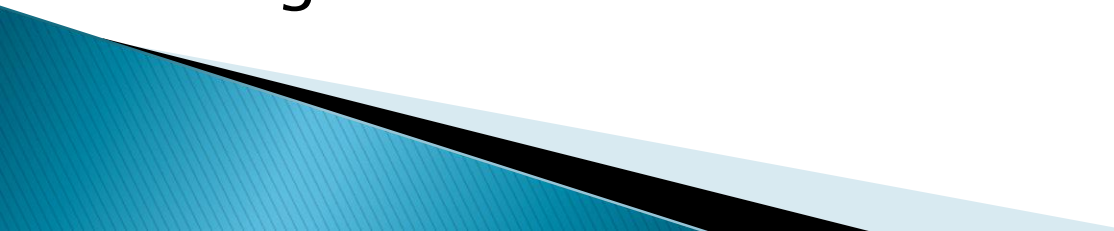


Extruder
Main



Parallel Print Alignment Marks

Overview

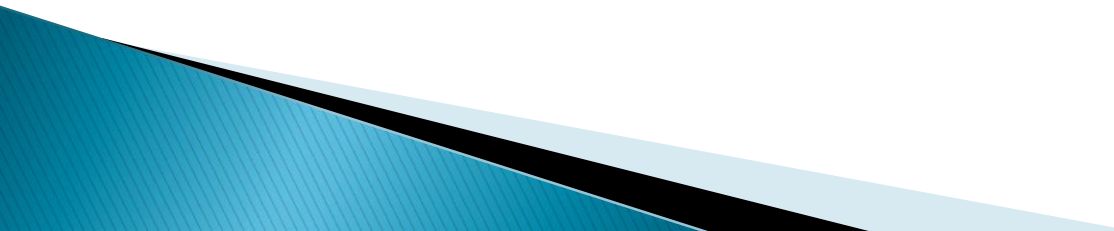
- ▶ Purpose: To create calibration prints for the extruder heads for series and multiple head printing
 - ▶ In order to setup perfect extruder head offsets in the X & Y Axes, we need to specify the exact position of the nozzles relative to each other. Therefore, we use this parallel print to setup for Calibrating the Offsets in the X & Y Axes.
 - ▶ We accomplish this by printing the “Parallel Print Alignment Marks” first.
- 

Parallel Print Alignment Marks

1-By-1

- ▶ Remove all prints from the build surface
- ▶ Load “Parallel Print Alignment” G-code
- ▶ Print “Parallel Print Alignment” G-code
- ▶ When complete, DO NOT REMOVE PRINTS FROM THE BUILD PLATFORM

Calibrate Offsets – Overview

- ▶ Purpose: To get and set the X & Y Axis offsets for all extruder heads.
 - ▶ In order to setup perfect X & Y Axis, we will use the camera's red crosshairs to align, assign, and save the offsets to each extruder head.
 - ▶ We accomplish this using the following steps:
- 

Calibrate Offsets – 1-By-1

- ▶ With the Parallel Print Alignment prints on the build platform:
- ▶ Use Yoke Camera to determine the origin with the left-most extruder's print
 - The camera's red crosshairs need to be aligned to the Printed "+" of the what the left-most extruder printed with the Parallel Print Alignment print
 - Use the "Fine Move" button to fine-tune the position of the camera's red crosshairs with the Printed "+" of the corresponding extruder head
 - Click on the red X & Y Axis read-outs in the Manual Control sub-menu
- ▶ Then use Yoke Camera to determine the offset for the extruders to the right of the left-most head
 - The camera's red crosshairs need to be aligned to the Printed "+" of that extruder's Parallel Print Alignment print
 - Use the "Fine Move" button to fine-tune the position of the camera's red crosshairs with the Printed "+" of the corresponding extruder head
 - Use the Extruder Controls to "grab" the offsets for the Heads automatically
- ▶ Flash the Heads

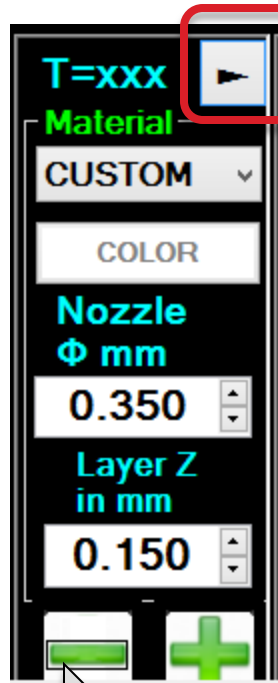
Calibrate Offsets

Click the  button to get to the “offsets”

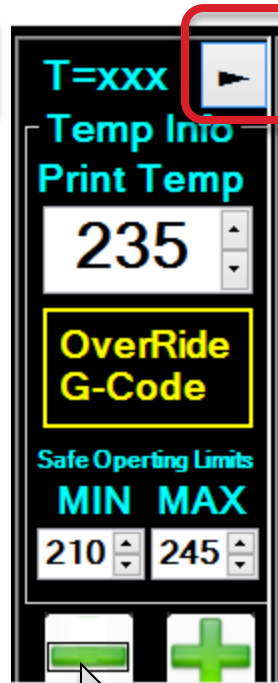
Extruder
Main



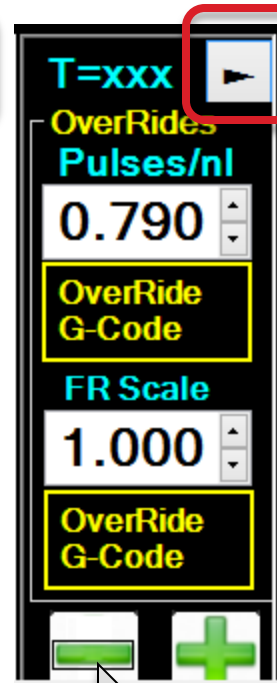
Extruder
Material



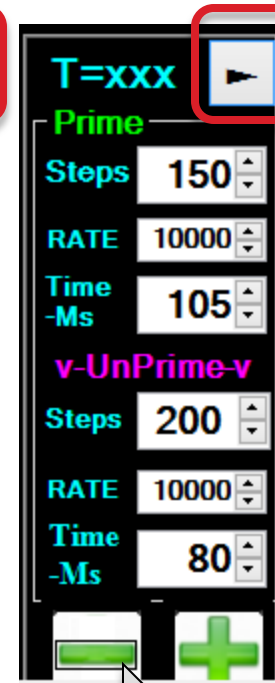
Extruder
Temp



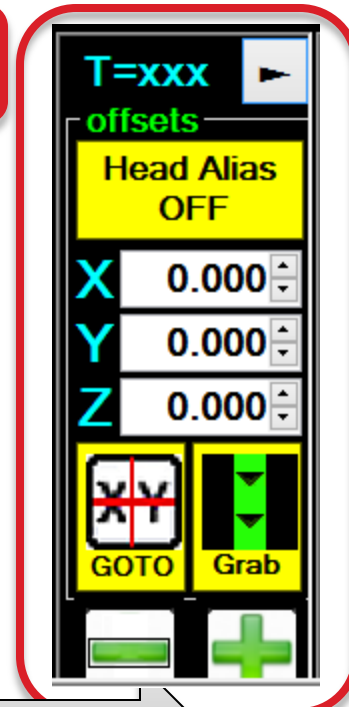
Extruder
Flow



Extruder
Prime

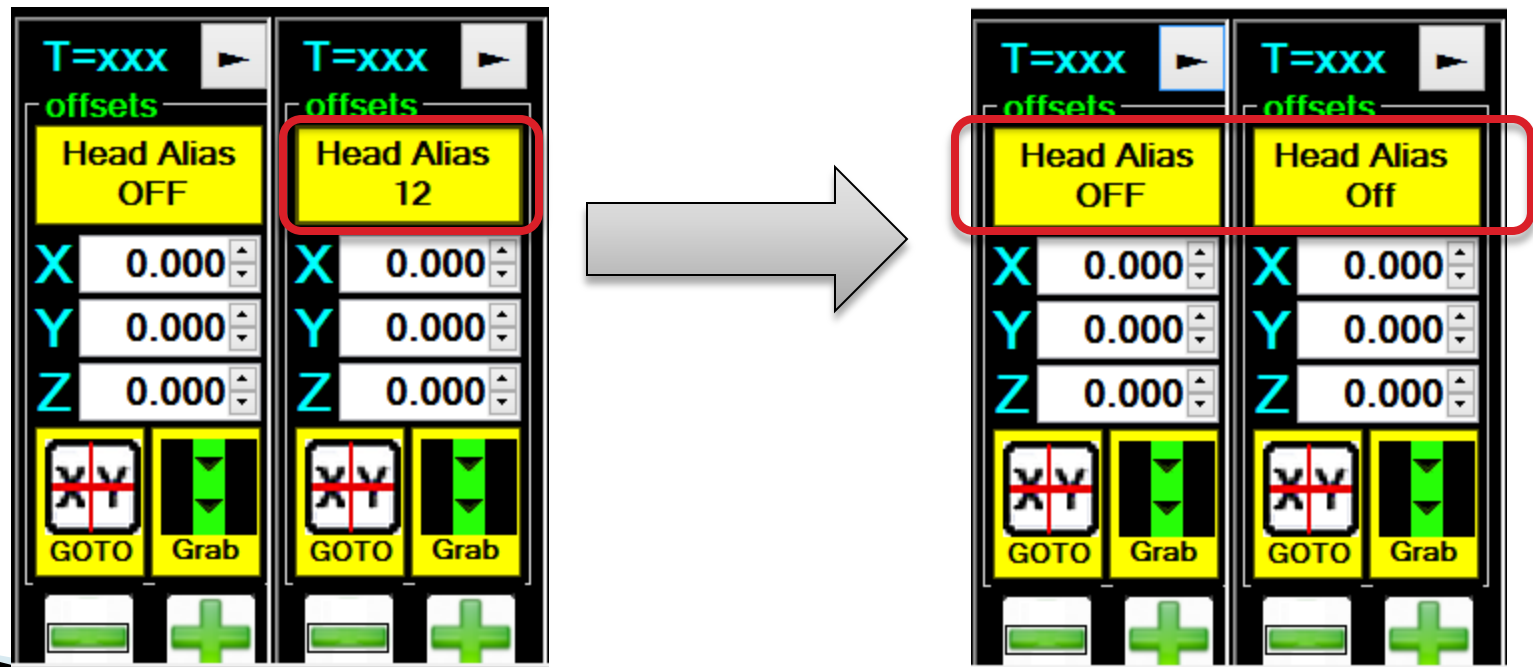


Extruder
Offsets



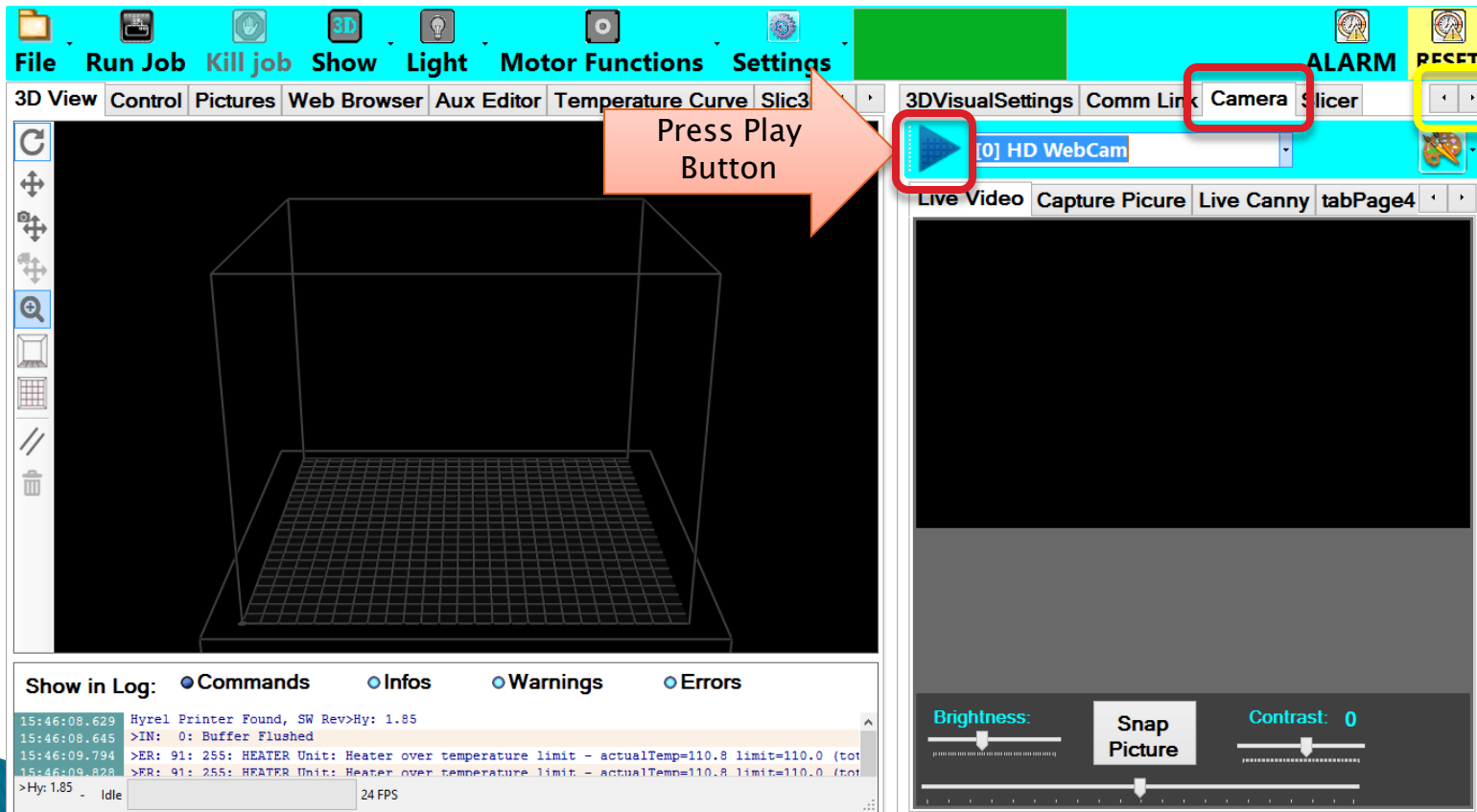
Calibrate Offsets

In the “offsets” extruder settings,
Make sure all extruders are set to
“Head Alias OFF”.



Calibrate Offsets

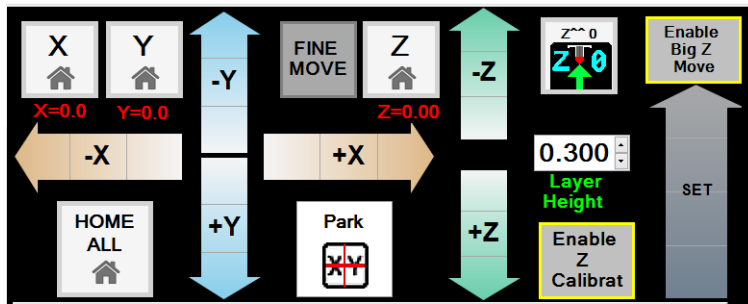
Open the “Camera” tab
→ Start yoke camera



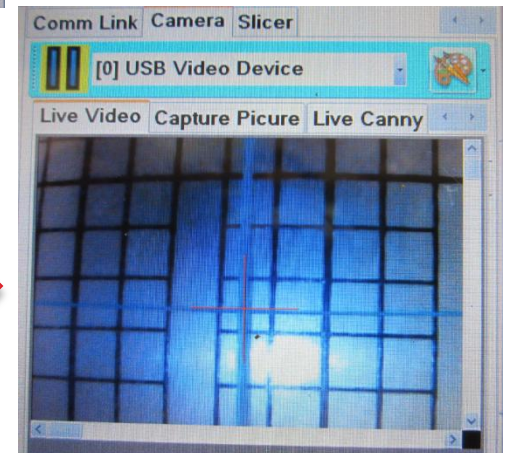
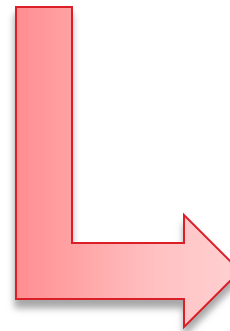
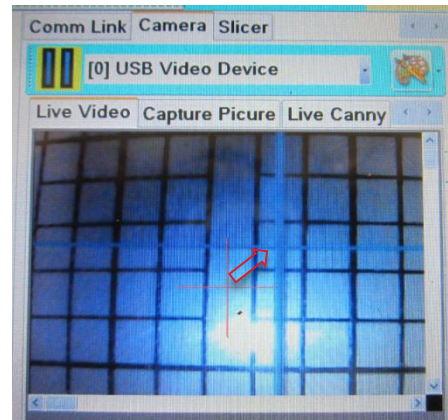
Use these arrows to navigate to the “Camera” tab

Calibrate Offsets

Starting with the Left-most print:
Use the manual controls to align yoke
camera's red crosshairs with the printed “+”

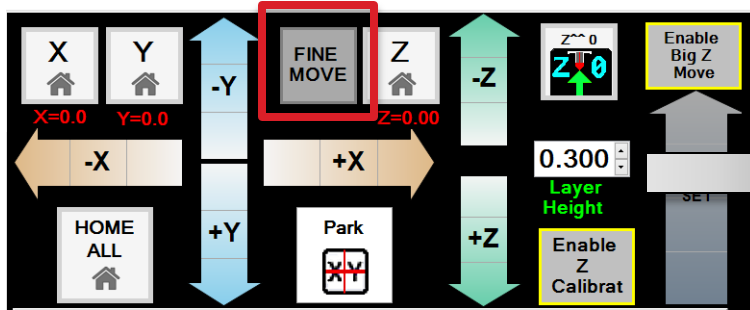


Manual Controls, Regular Moves

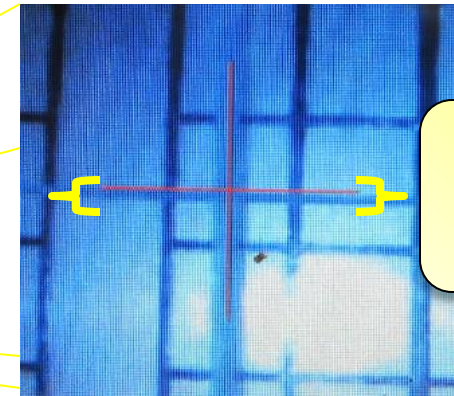
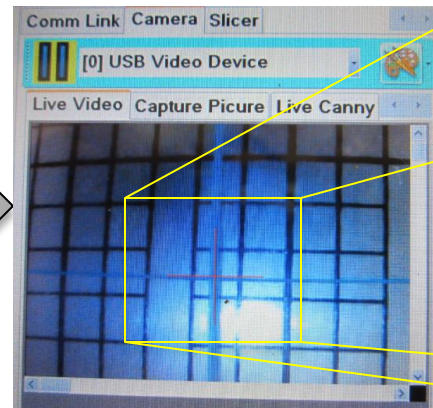


Calibrate Offsets

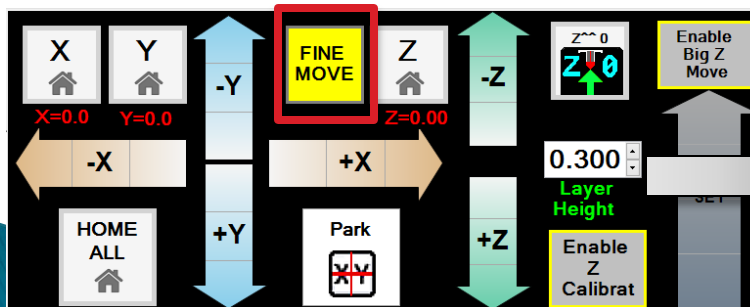
Use the “Fine Move” button to change the manual controls to move in tight steps



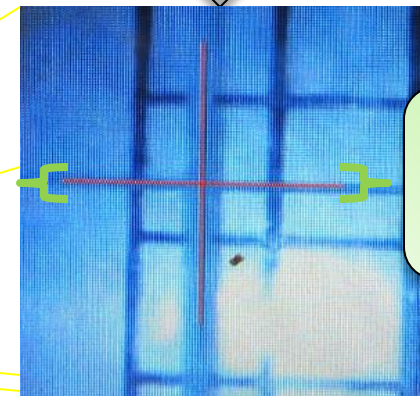
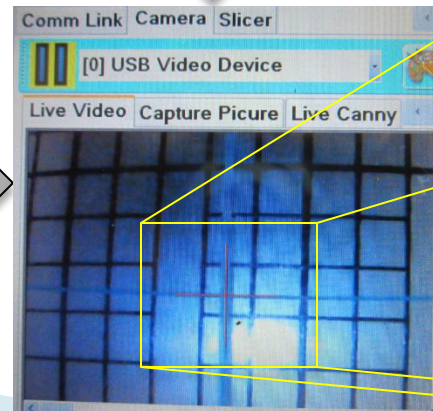
Manual Controls, Regular Moves



Not Quite Perfect



Manual Controls, Fine Moves

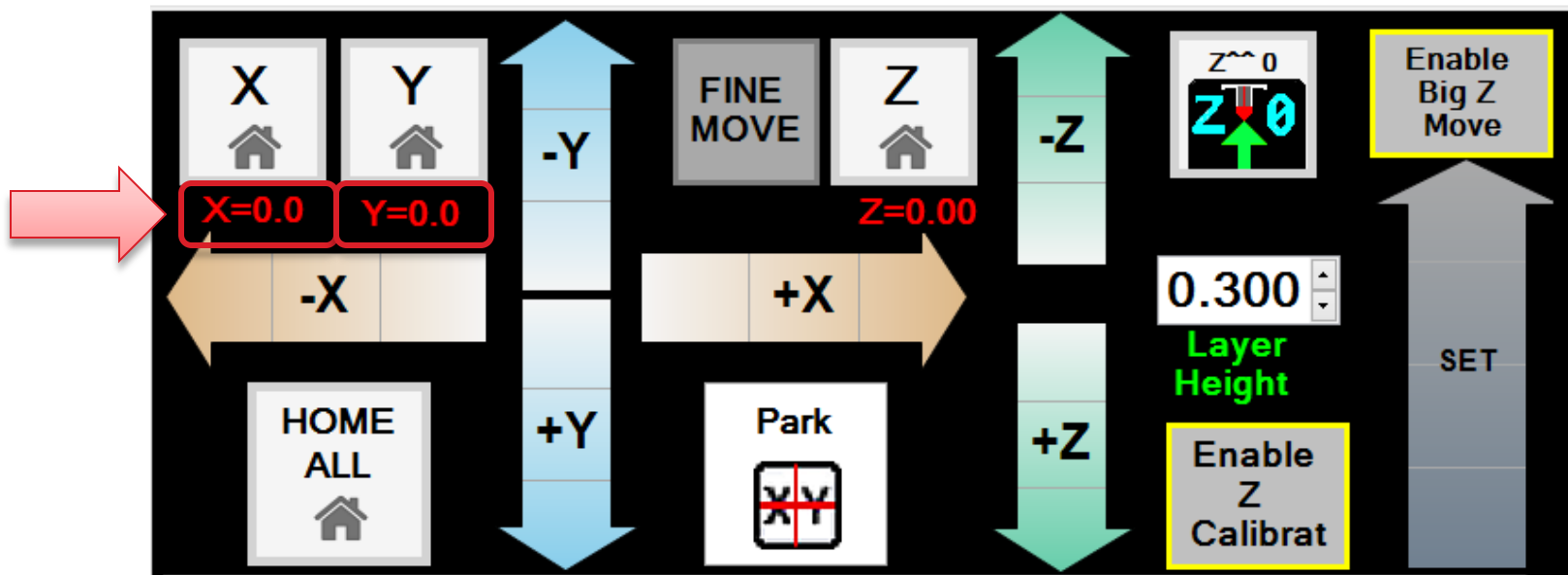


Perfect

Calibrate Offsets

The Left-most extruder is the origin, therefore, Click on the red X & Y coordinates in the Manual Controls to “zero” the X & Y Axis

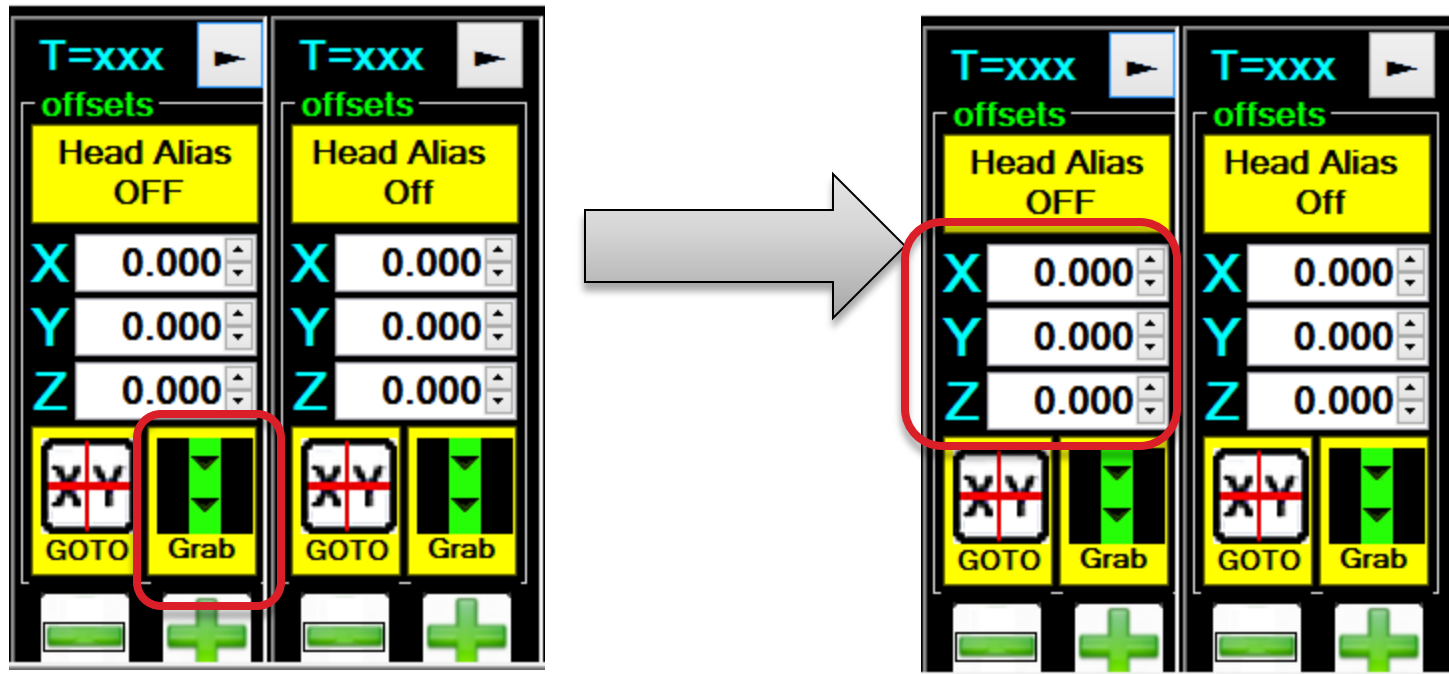
Manual Controls, Regular Moves



This sets the reference points.
The movements from this position to the next
are relative to these reference points

Calibrate Offsets

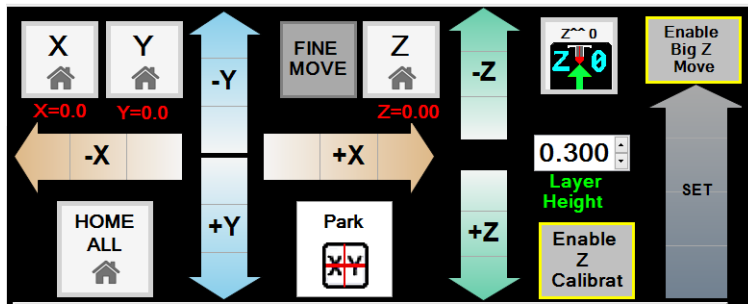
Use the Extruder Controls to “grab” the offsets for the Heads automatically for the Left-most Extruder



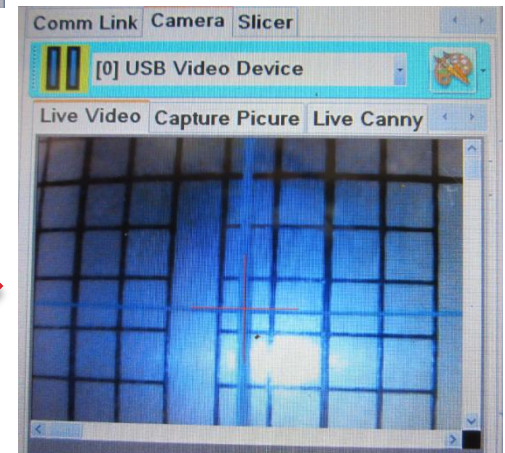
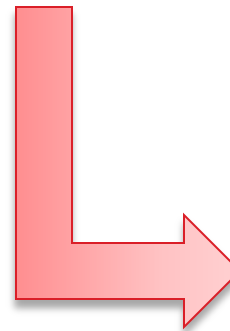
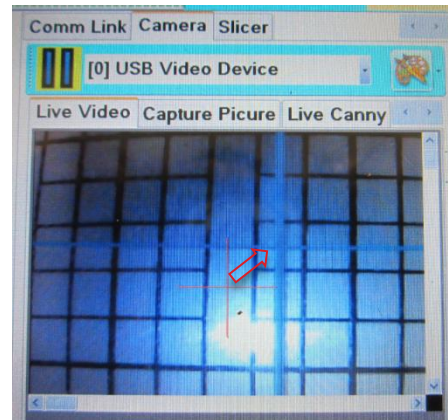
*We always grab the origin points – just in case the left-most extruder head had offsets, other than 0,0

Calibrate Offsets

Next, use the manual controls to align yoke camera's red crosshairs with the printed “+” of the next right-side print.

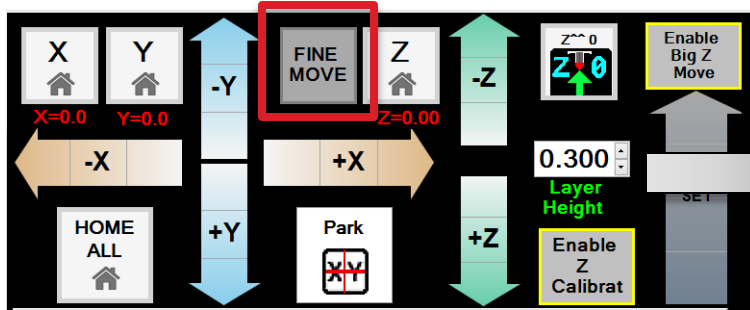


Manual Controls, Regular Moves

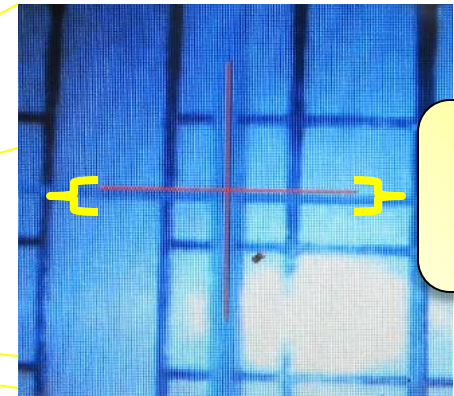
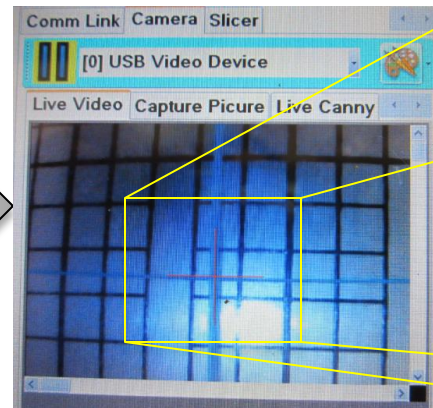


Calibrate Offsets

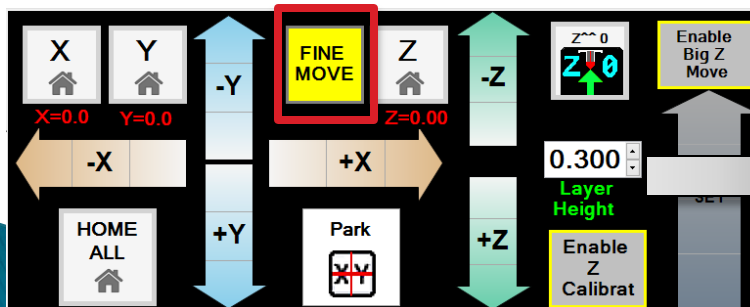
Use the “Fine Move” button to change the manual controls to move in tight steps



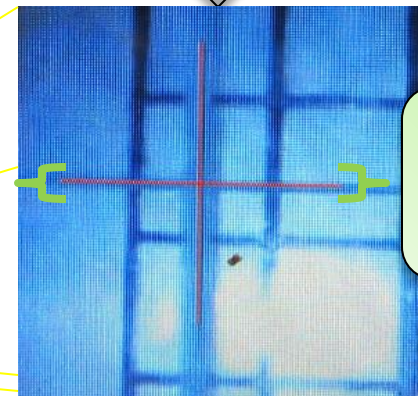
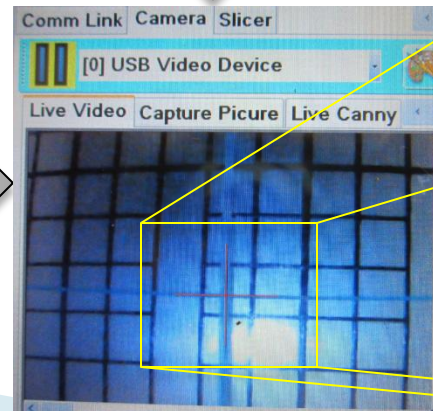
Manual Controls, Regular Moves



Not Quite Perfect



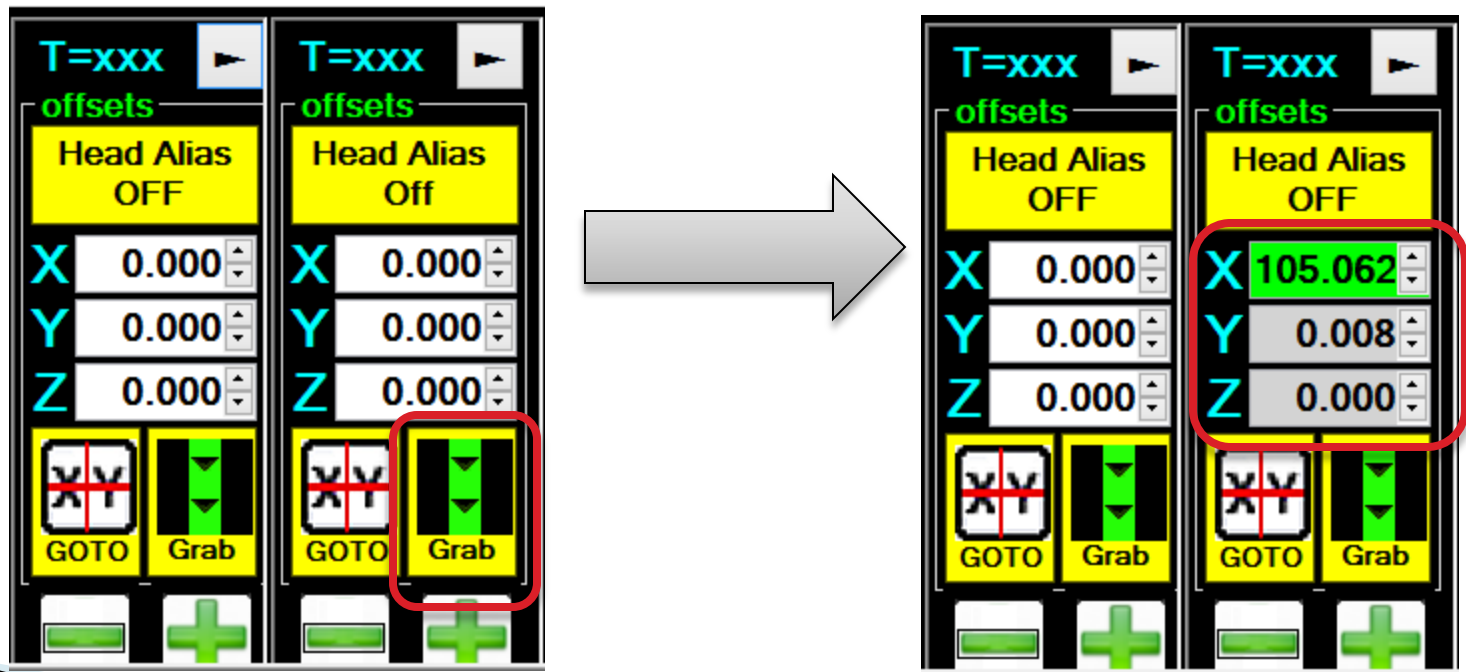
Manual Controls, Fine Moves




Perfect

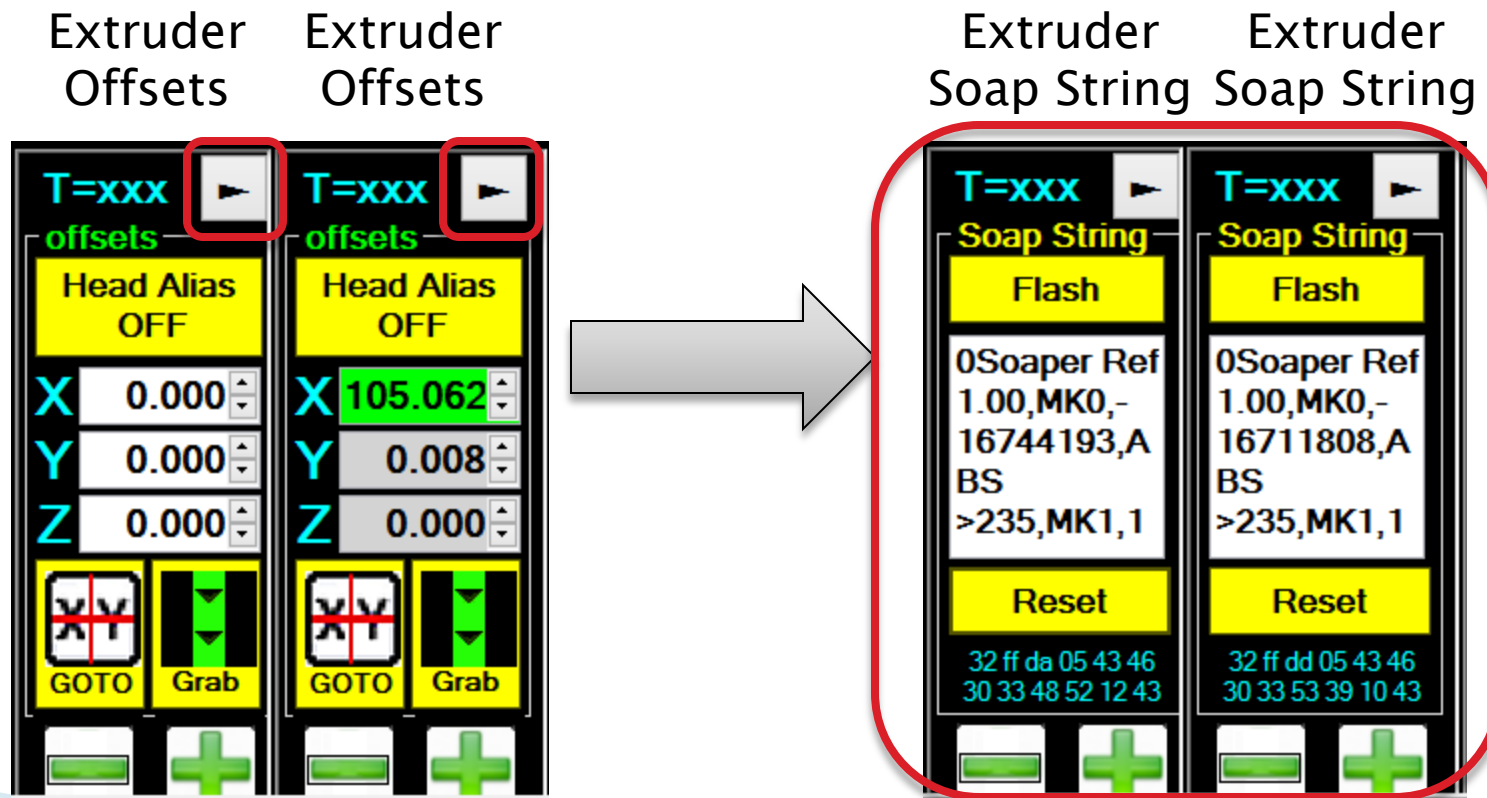
Calibrate Offsets

Use the Extruder Controls to “grab” the offsets for the Heads automatically
For the next, right-side extruder



Calibrate Offsets

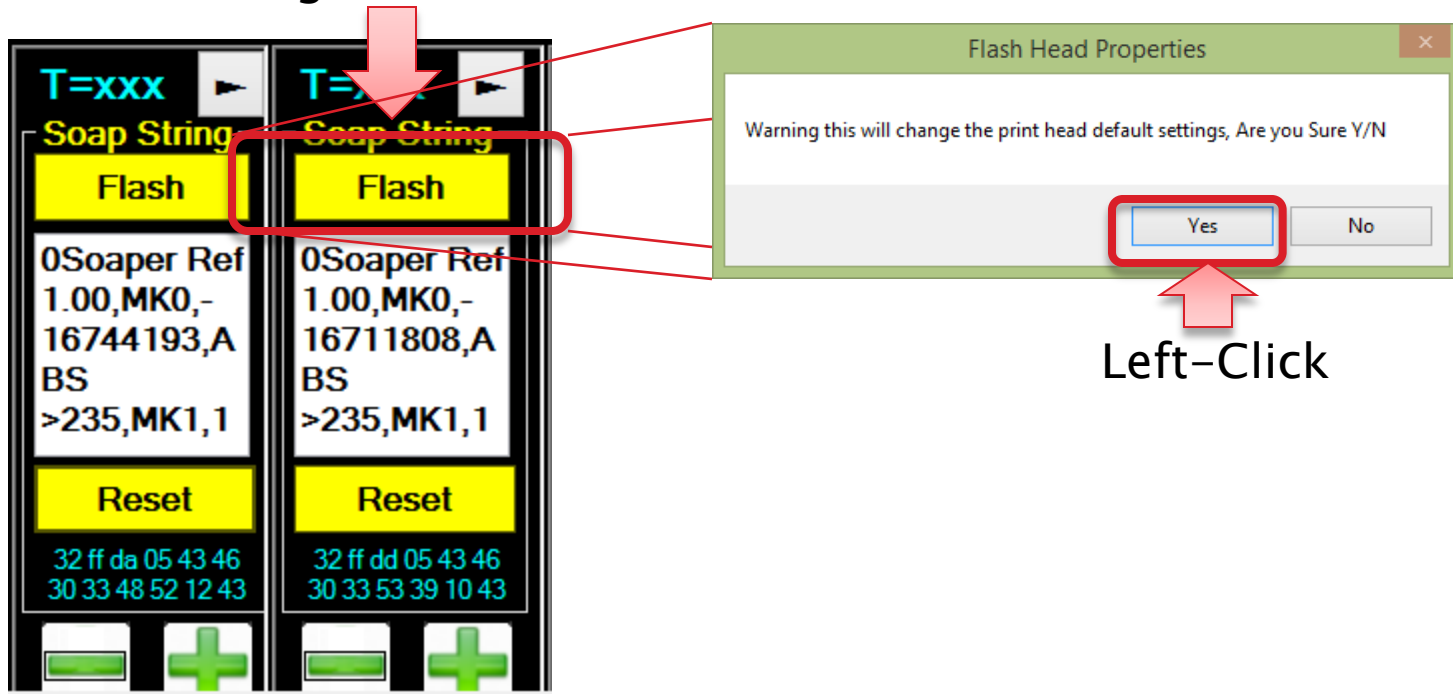
Click the  button until the “Soap String” is seen for both extruders.



Calibrate Offsets

In the “Soap String” submenu,
Flash (Program) the head.
Do this for both heads.

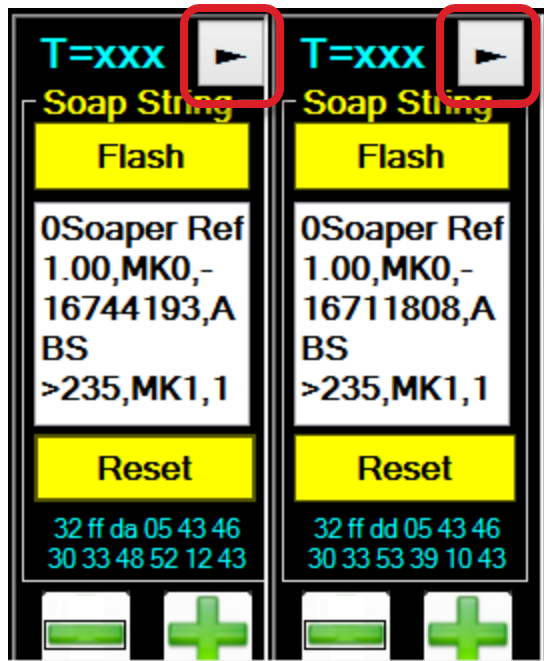
Right-Click



Calibrate Offsets

Click the  button to return to the main Extruder controls

Extruder
Soap String



Extruder
Main

Extruder
Main



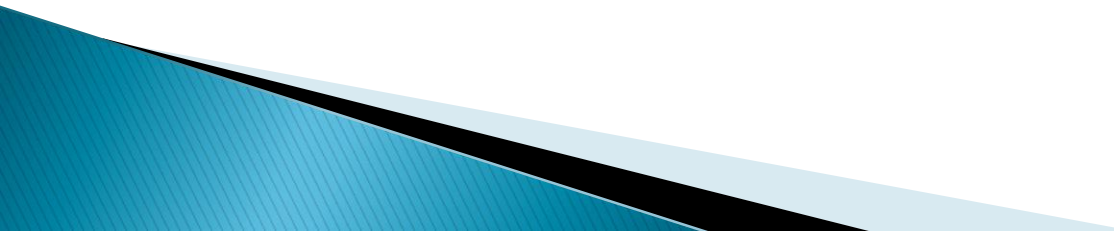
Series Print – Overview

- ▶ Purpose: To change material color / type layer by layer
- ▶ When the user wants to change the material color / type per layer on the same print, these are the instructions to follow. This validates that the user has their HYREL setup for success for the subsequent Multi-Head prints (support prints, et al.)
- ▶ In order to properly do this, the user must specify when the extruder change will occur after a layer change (Z-Axis move) has occurred. This process is currently a manual edit in the g-code.

Series Print – 1–By–1

- ▶ Calibrate Offsets (X & Y Alignment) ← **Mandatory**
 - ▶ Manual setup of G-Code
 - ▶ Remove all prints from the build surface.
 - ▶ Check Tram
 - ▶ Print “Series Test” print *FIRST*

 - ▶ IF each layer is not aligned, re-calibrate offsets & re-print

 - ▶ IF each layer is aligned, continue to Support Print
- 

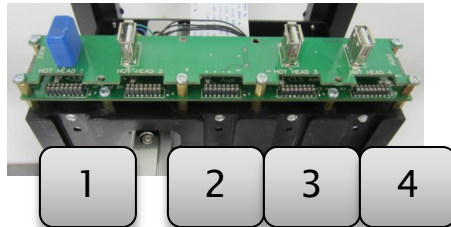
Series Print

Cheat Sheet:

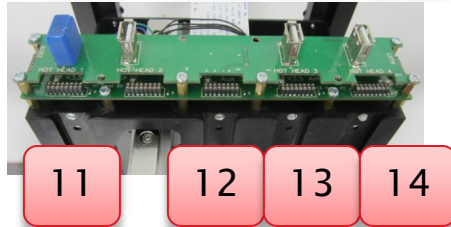
Extruder Positioning to G-Code Link-up

Physical
Head Slot

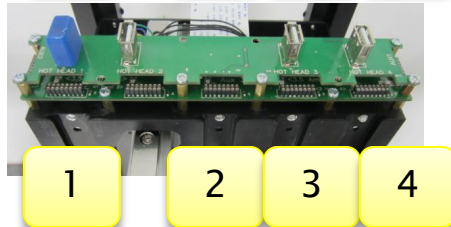
1x3 Yoke



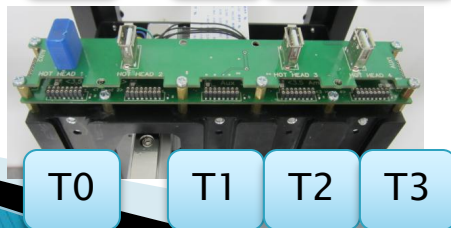
Repetrel
Extruder
Designation



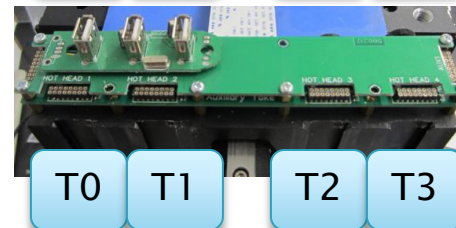
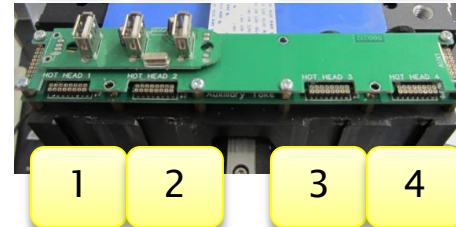
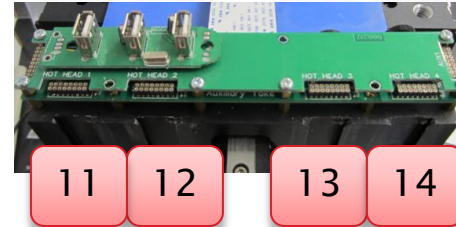
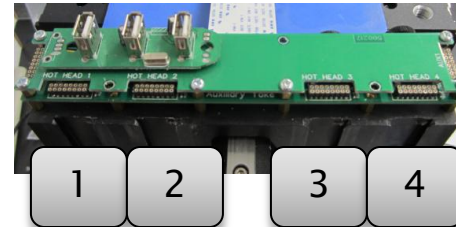
Slic3r
Extruder
Designation



G-Code*
Designation



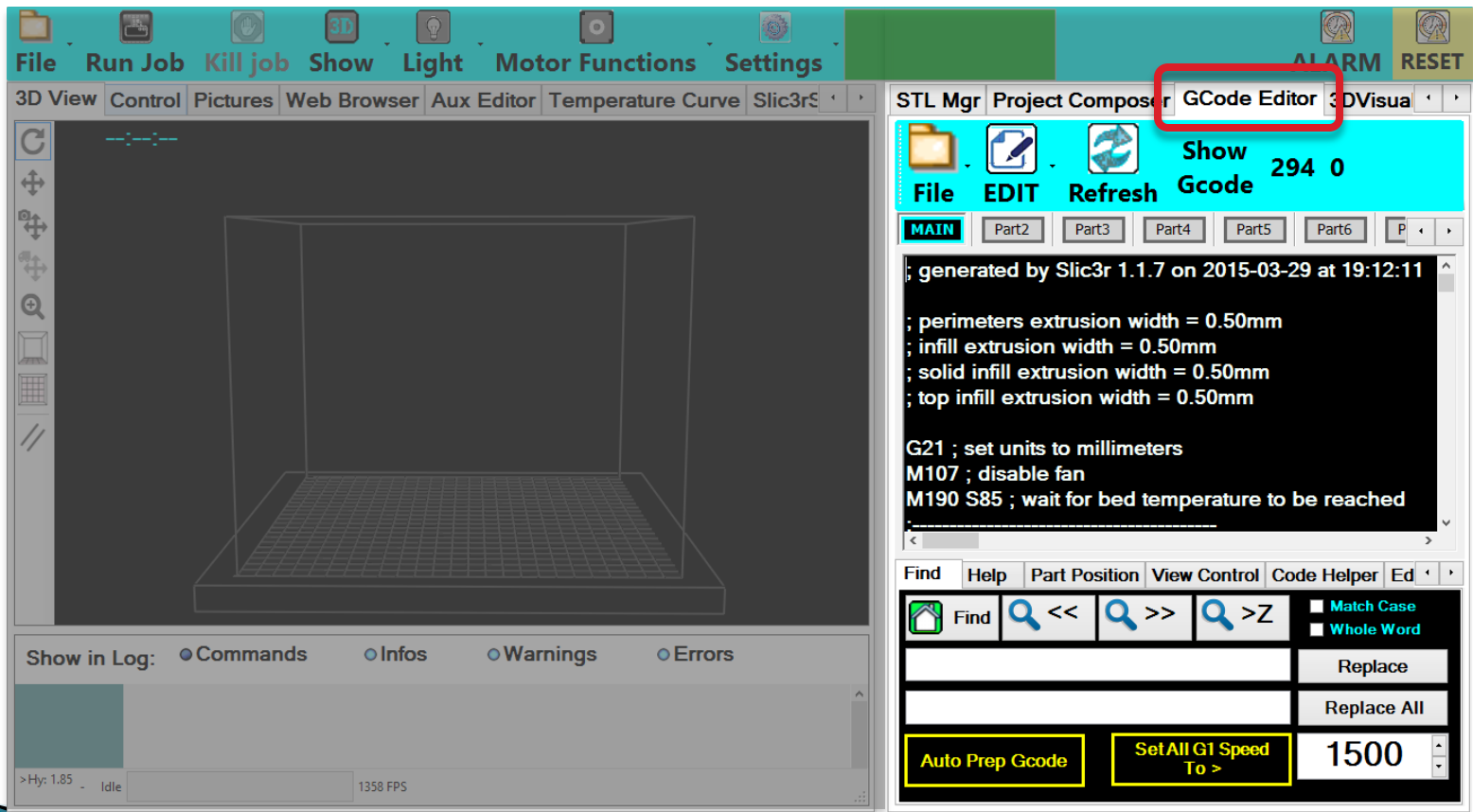
2x2 Yoke



*Generated
By Slic3r

Series Print

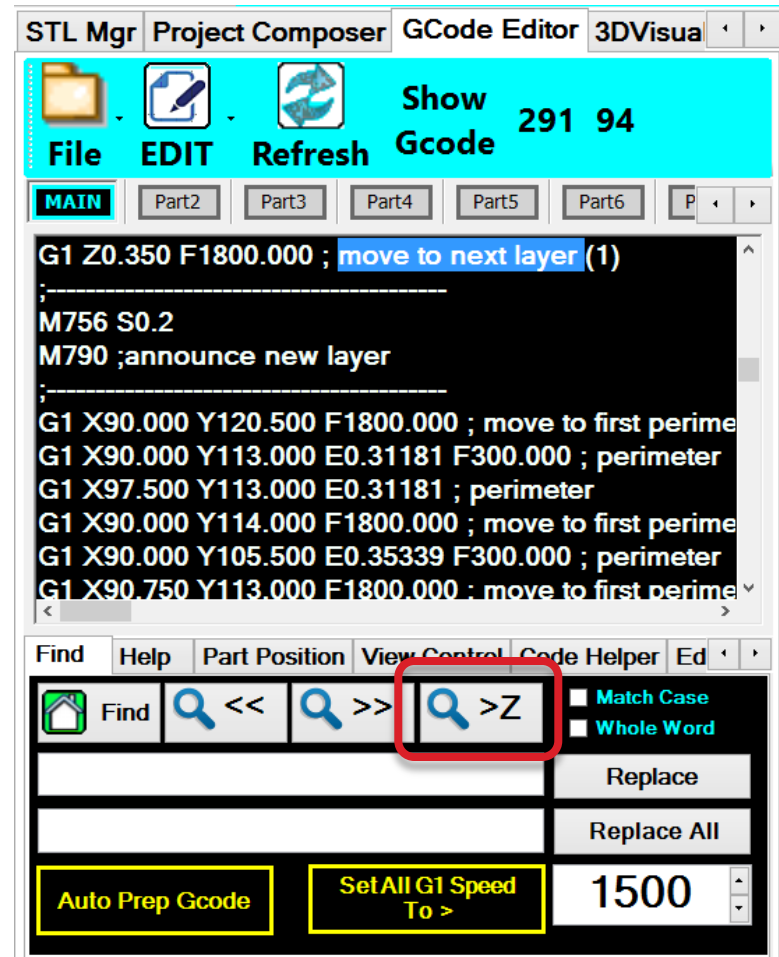
Manual setup of G-Code in Repetrel
→ Select “Gcode Editor” tab



Series Print

Manual setup of G-Code in Repetrel

→ Select ">Z" button twice
to skip to second Z-layer



Series Print

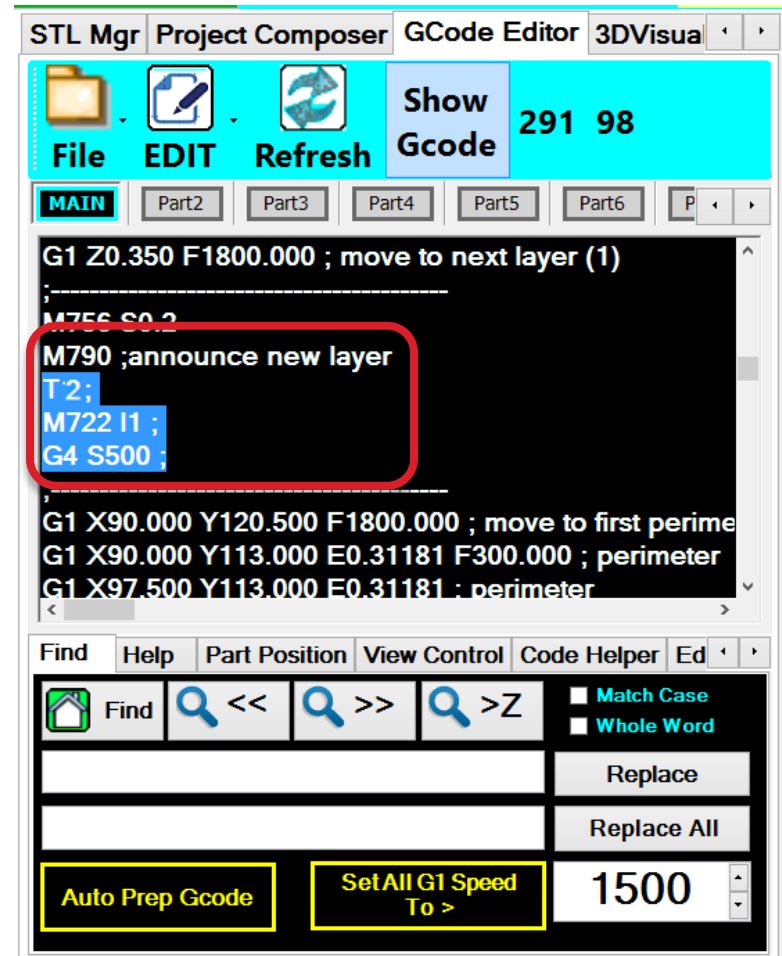
Manual setup of G-Code in Repetier

→ Manually type in the following
after “M790 ;announce new layer”:

T2 ;
M722 I1 ;
G4 S500 ;

Decoded:

T2 = Change to 2nd extruder (slot 3)
M722 I1 = Prime the 2nd extruder ASAP
G4 S500 = Pause for 500ms



Series Print

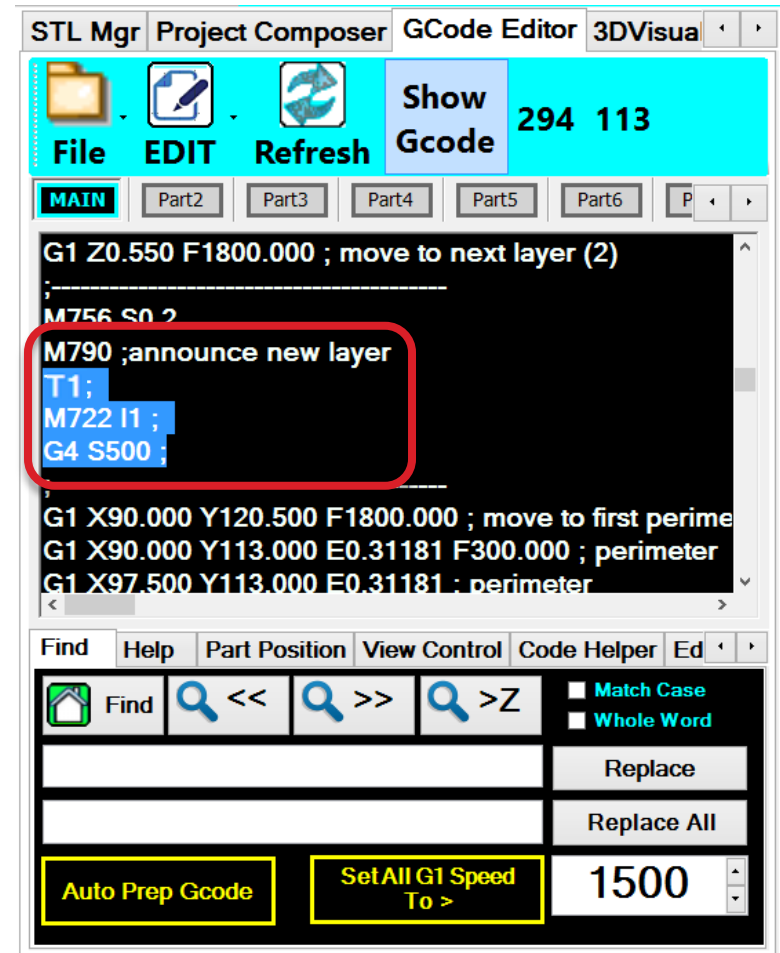
Manual setup of G-Code in Repetier

- Press the “>Z” button to go to the next layer
- Manually type in the following after “M790 ;announce new layer”:

```
-----  
T1 ;  
M722 I1 ;  
G4 S500 ;  
-----
```

Decoded:

- T1 = Change to 1st extruder (slot 2)
- M722 I1 = Prime the 1st extruder ASAP
- G4 S500 = Pause for 500ms



Series Print

Manual setup of G-Code in Repetrel

Continue the previous processes until satisfied

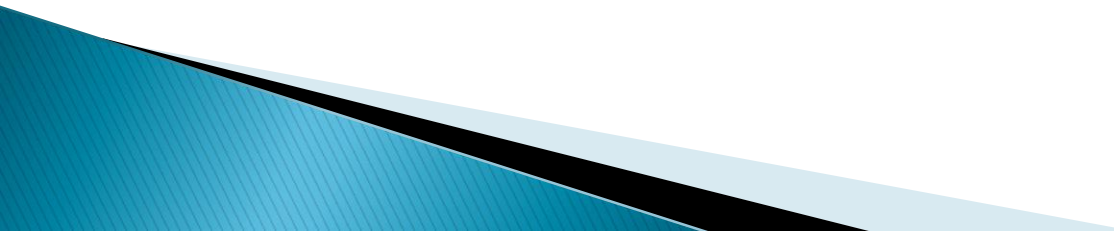
NOTE: The user can also select which layers will have a tool change.



Support Print – Overview

- ▶ Purpose: To print objects with two or more heads, one of which is the user's support material.
- ▶ At this point, the user should now be able to make the models with the heads installed. They will need to be setup properly in the Slic3r recipes to produce the desired results.

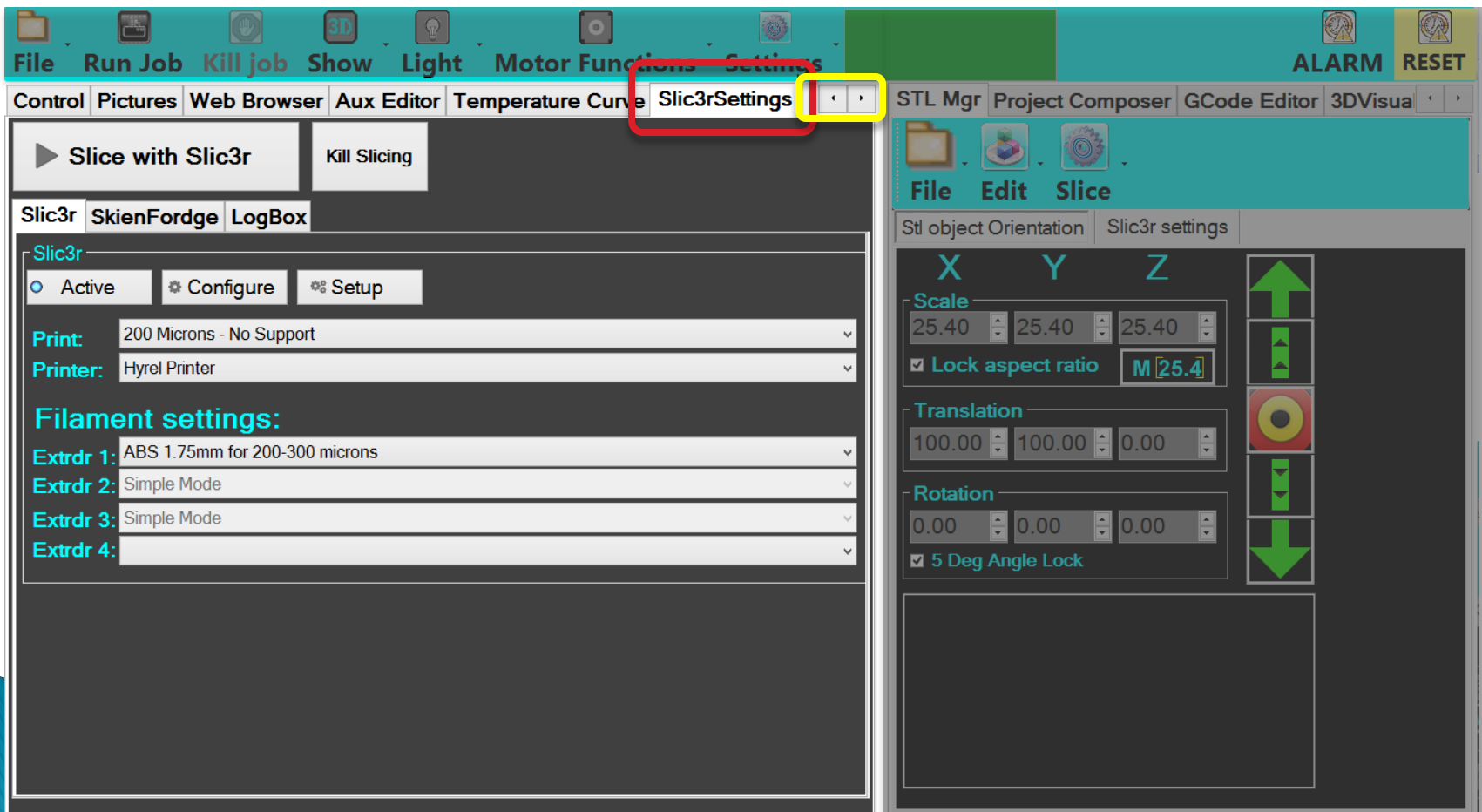
Support Print – 1 –By–1

- ▶ At this point, the user should now be able to make the models with the heads installed. They will need to be called out in the Slic3r recipes in order to work properly.
 - ▶ Remove all prints from the build surface.
 - ▶ Check Tram
 - ▶ Load your *.stl file
 - ▶ Orient, Rotate, Scale
 - ▶ Setup Slic3r recipes
 - ▶ Slice
 - ▶ Print
- 

Support Print

Printing Support with a Different Head

Slic3r Recipe Setup: Select "Slic3rSettings" tab (Use arrow keys to navigate)

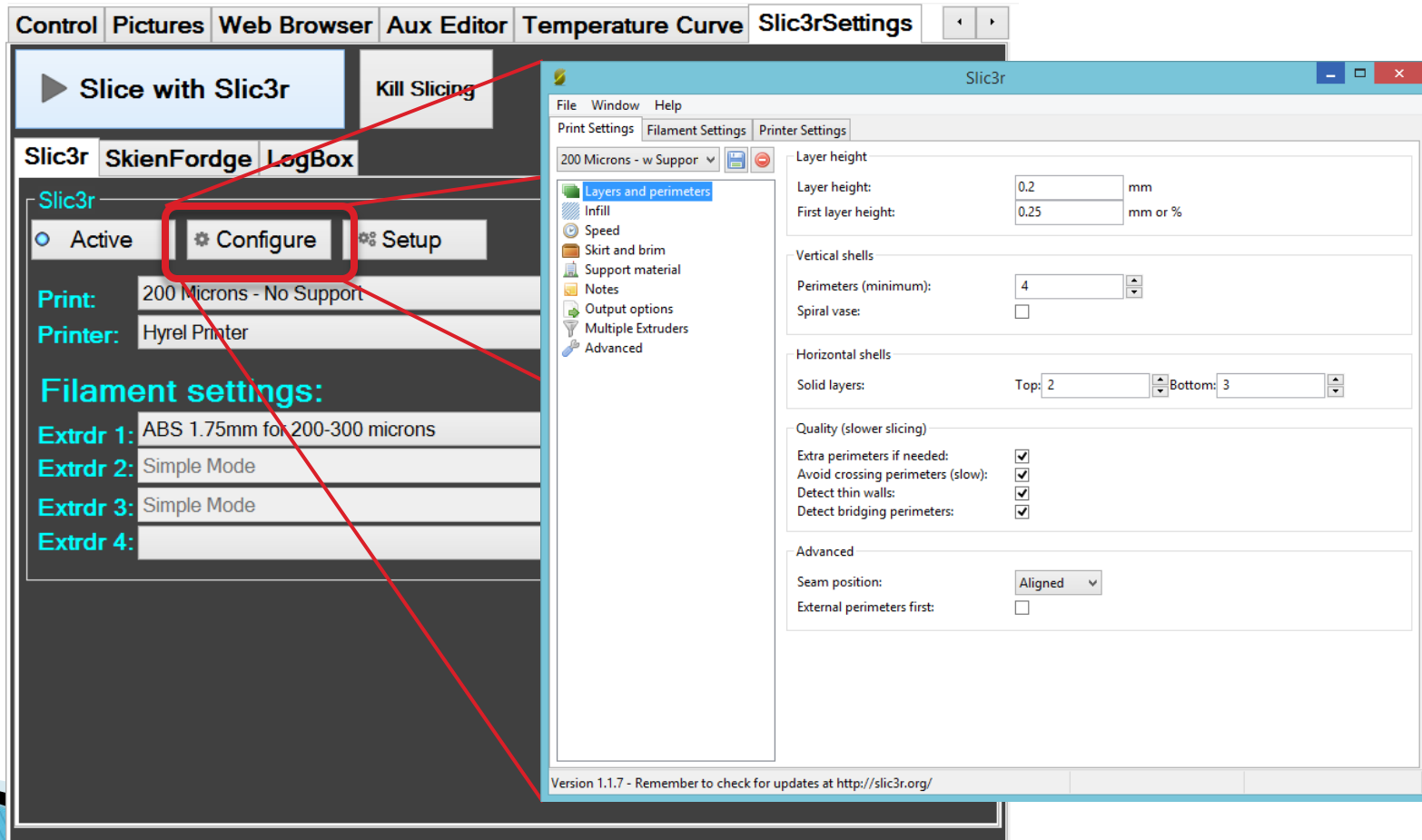


Support Print

Printing Support with a Different Head

Slic3r Recipe Setup: Click on the “Configure” button

<In 5–6 seconds> The Slic3r Configuration Pop-up window will load



Support Print

Printing Support with a Different Head
Slic3r Recipe Setup:

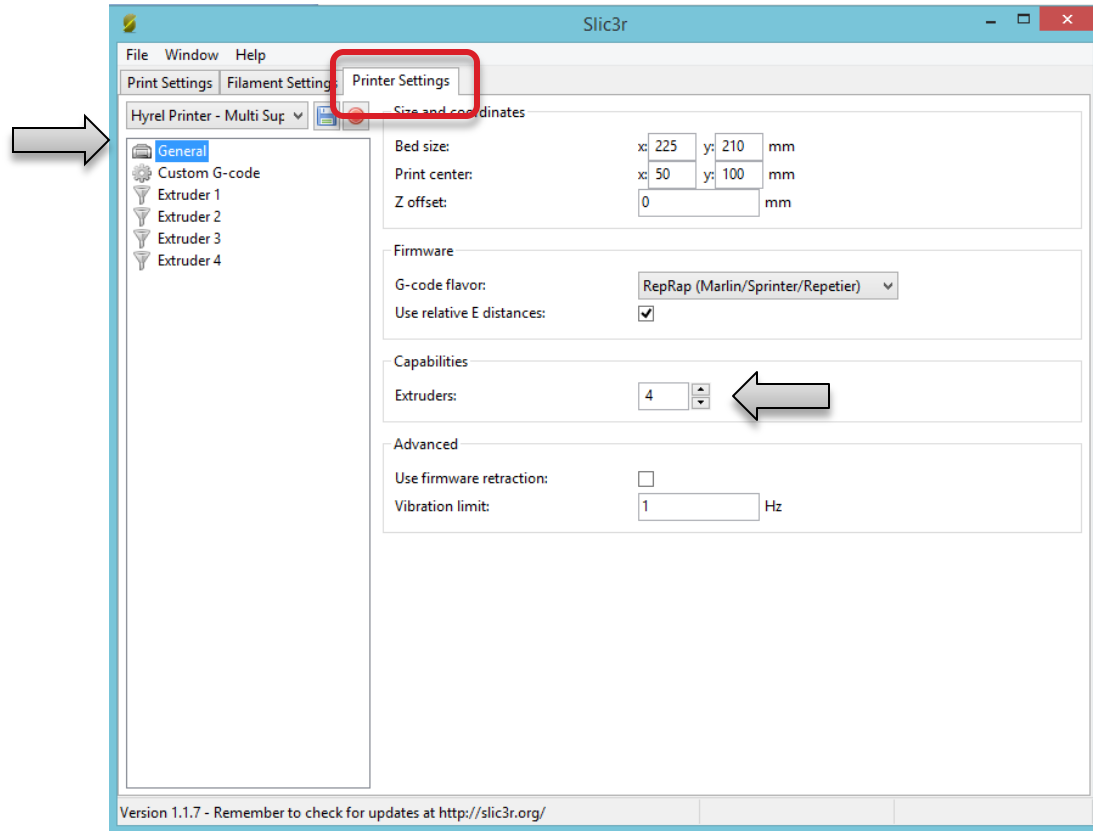
Select “Printer Settings” tab:

Select “General”

‘Capabilities’ Section

➔ “Extruders” = 4

Four extruders will appear
in the sub-menu



Support Print

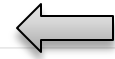
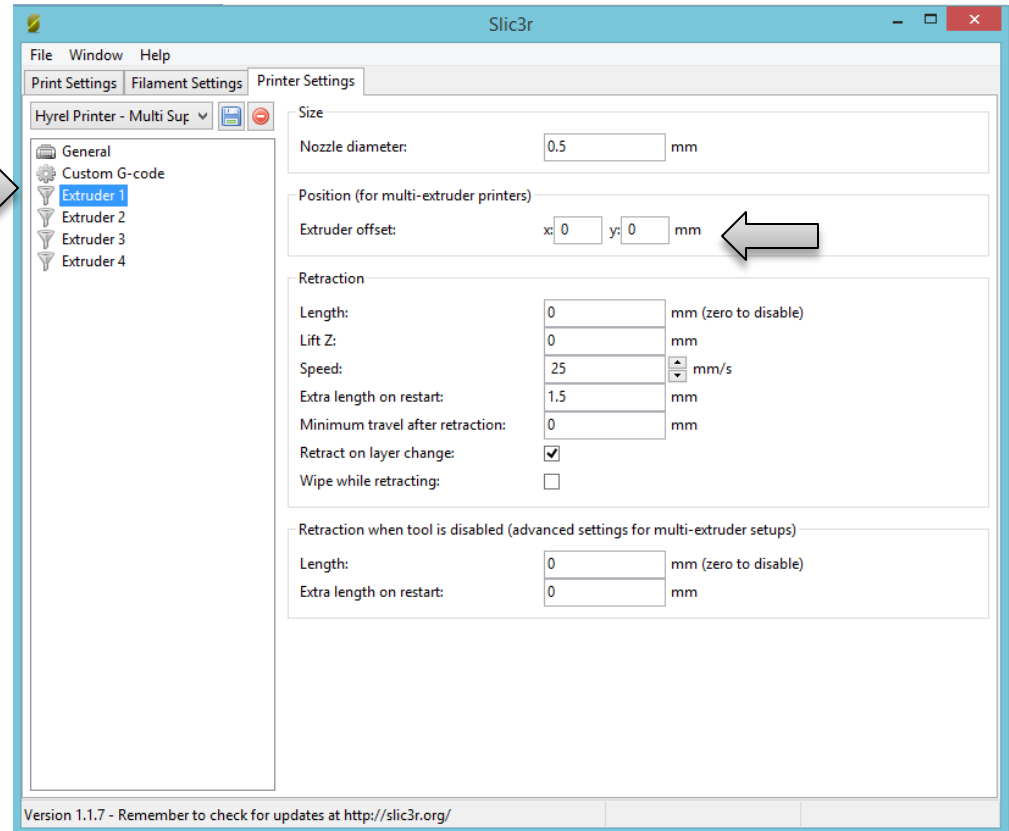
Printing Support with a Different Head
Slic3r Recipe Setup:

“Printer Settings” tab:

Select “Extruder 1”

‘Position’ Section

➔ “Extruder offset” = x 0, y 0



Support Print

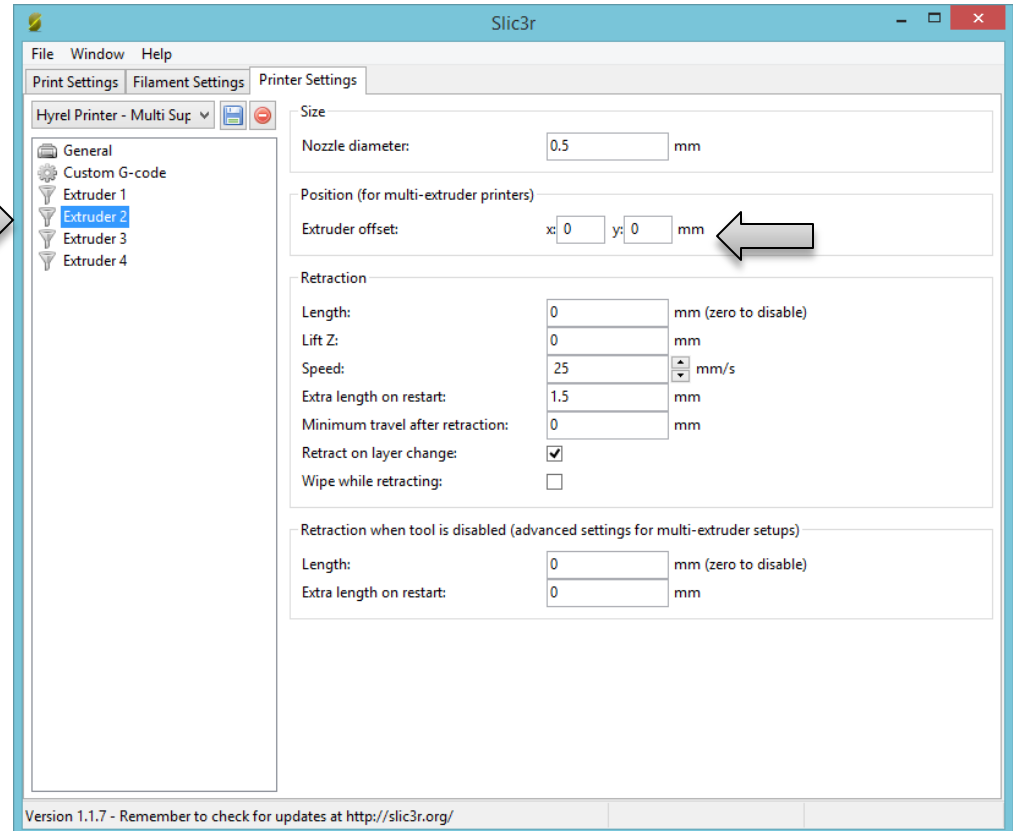
Printing Support with a Different Head
Slic3r Recipe Setup:

“Printer Settings” tab:

Select “Extruder 2”

‘Position’ Section

➔ “Extruder offset” = x 0, y 0



Support Print

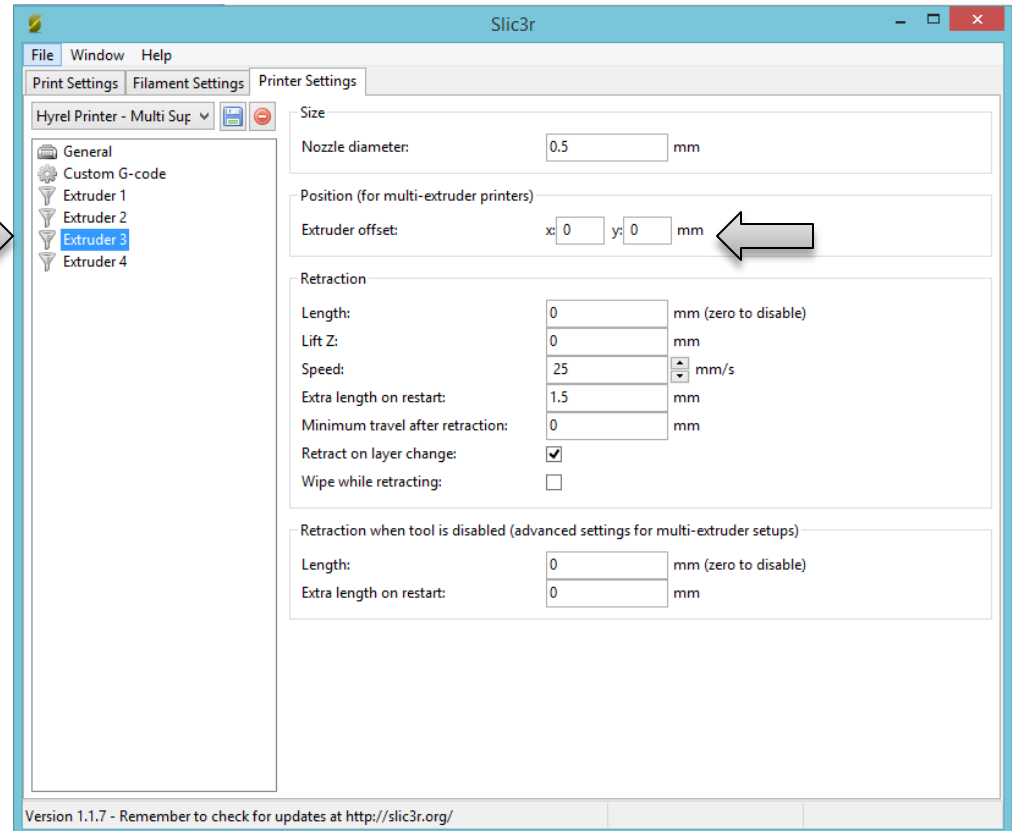
Printing Support with a Different Head
Slic3r Recipe Setup:

“Printer Settings” tab:

Select “Extruder 3”

‘Position’ Section

➔ “Extruder offset” = x 0, y 0



Support Print

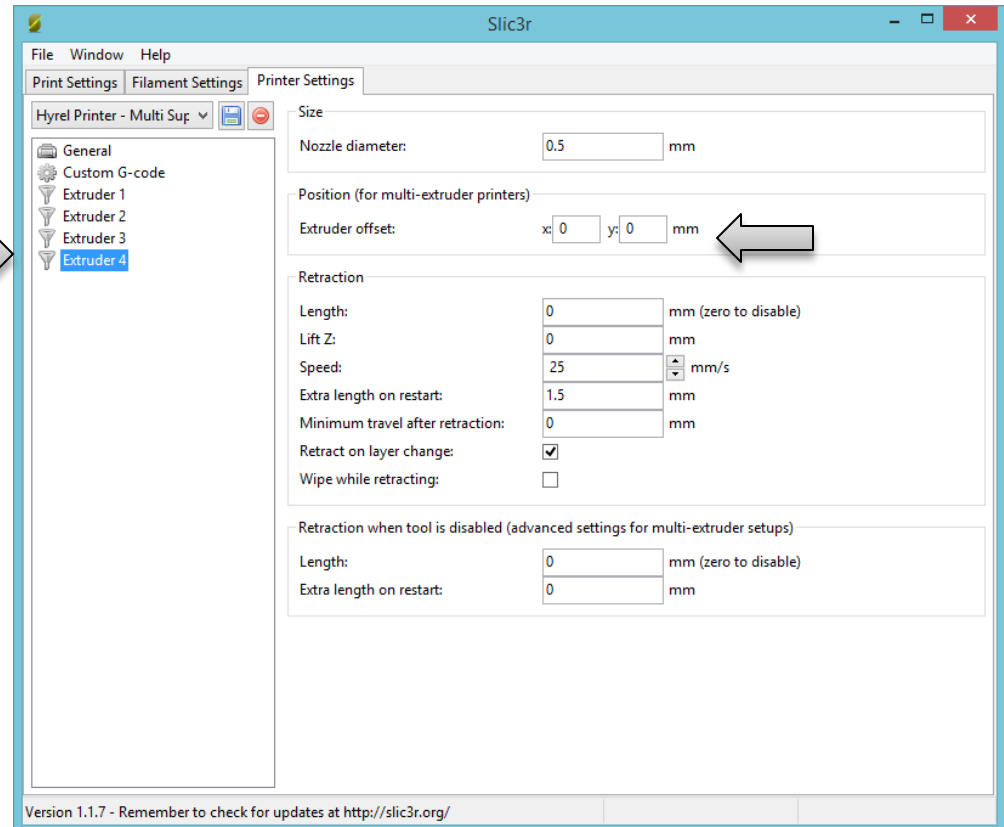
Printing Support with a Different Head
Slic3r Recipe Setup:

“Printer Settings” tab:

Select “Extruder 4”

‘Position’ Section

→ “Extruder offset” = x 0, y 0



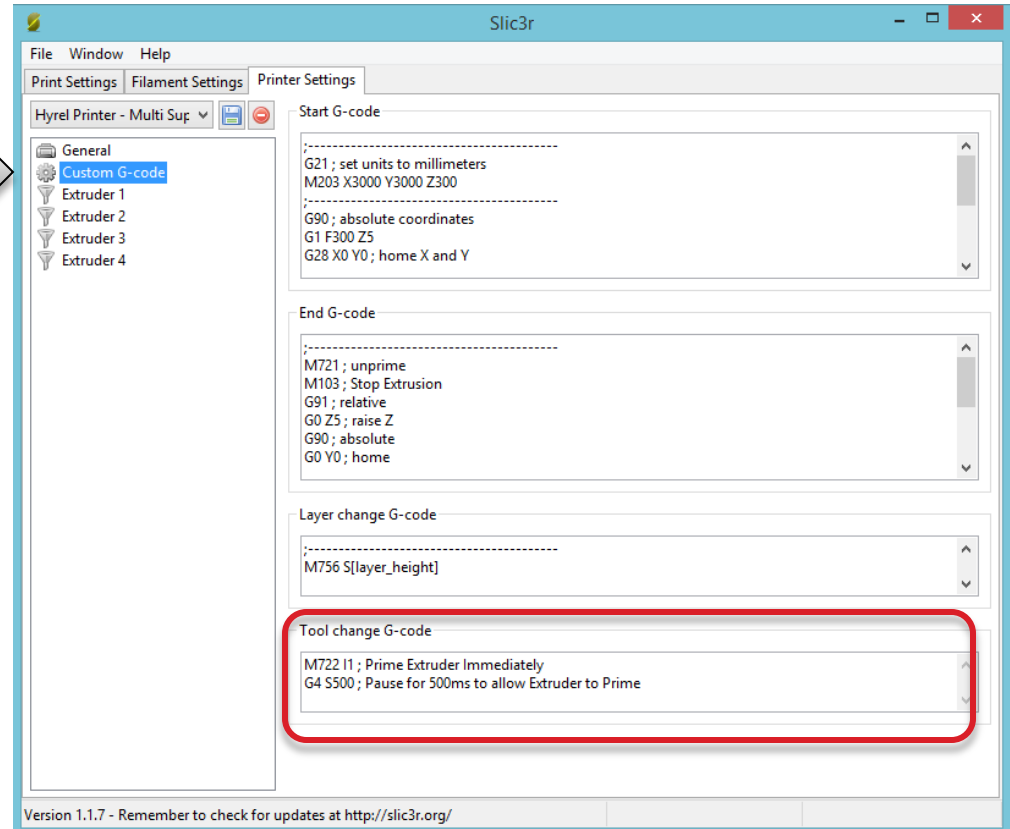
Support Print

Printing Support with a Different Head
Slic3r Recipe Setup:

“Printer Settings” tab:

Select “Custom G-code”

‘Tool change G-code’ Section
→ Add the following G-Code:
M722 I1 ; Prime Extruder
G4 S500 ; Pause for Prime



Support Print

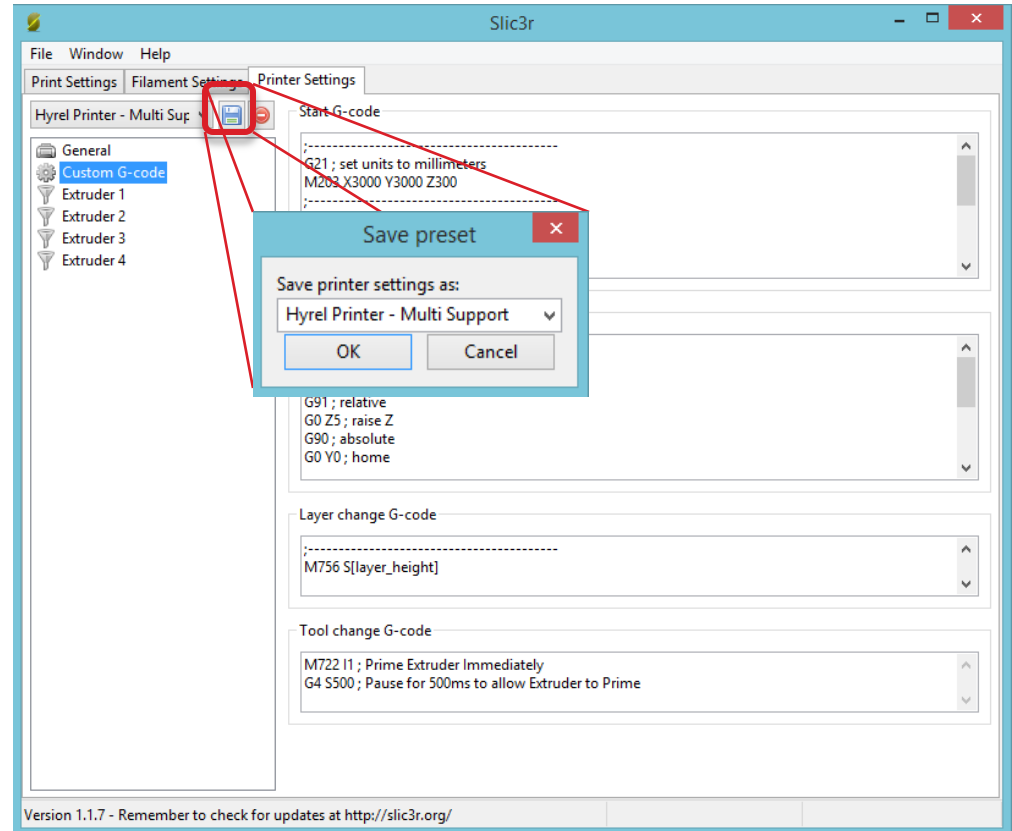
Printing Support with a Different Head
Slic3r Recipe Setup:

“Printer Settings” tab:

Click the Save button

In the pop-up window,
name your Slic3r preset / recipe

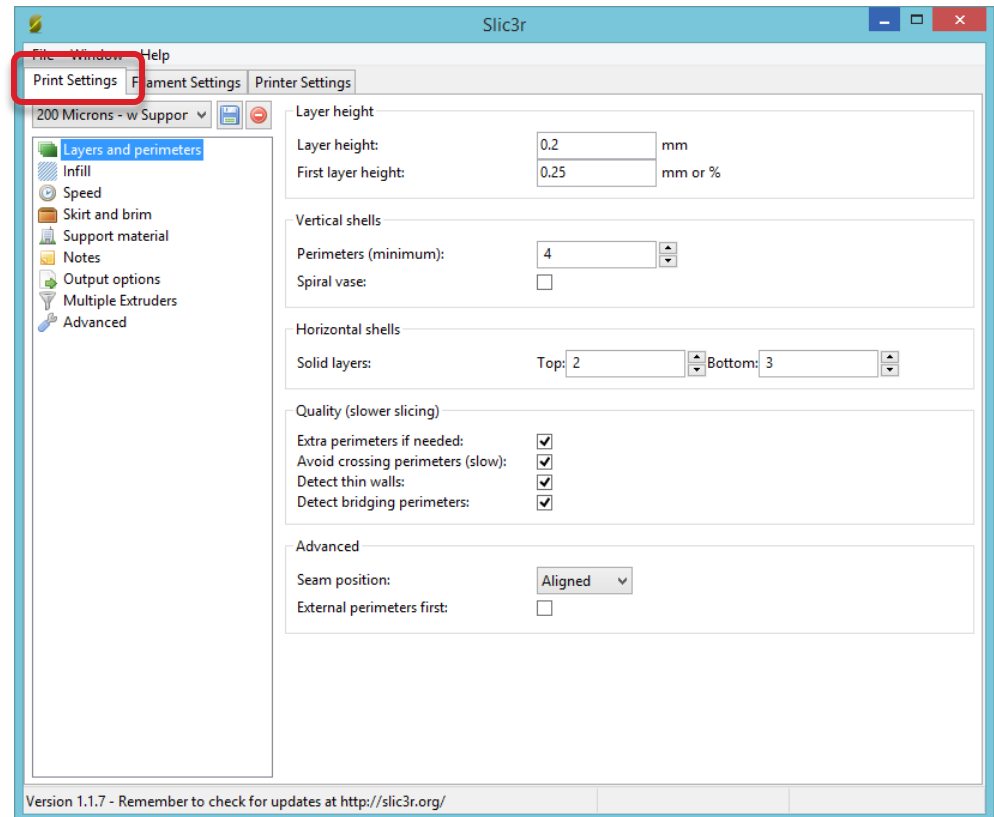
Click OK



Support Print

Printing Support with a Different Head
Slic3r Recipe Setup:

Select the “Print Settings” tab:

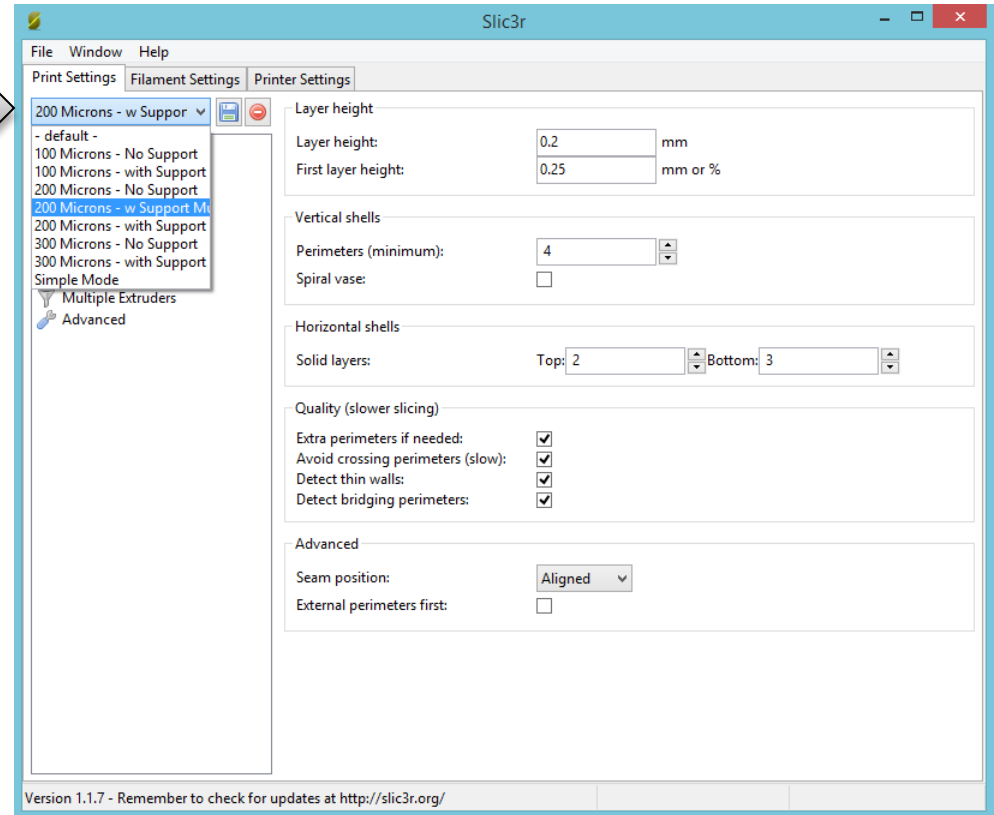


Support Print

Printing Support with a Different Head
Slic3r Recipe Setup:

“Print Settings” tab:

Select which Pre-setup Recipe
to start with



Support Print

Printing Support with a Different Head
Slic3r Recipe Setup:

“Print Settings” tab:

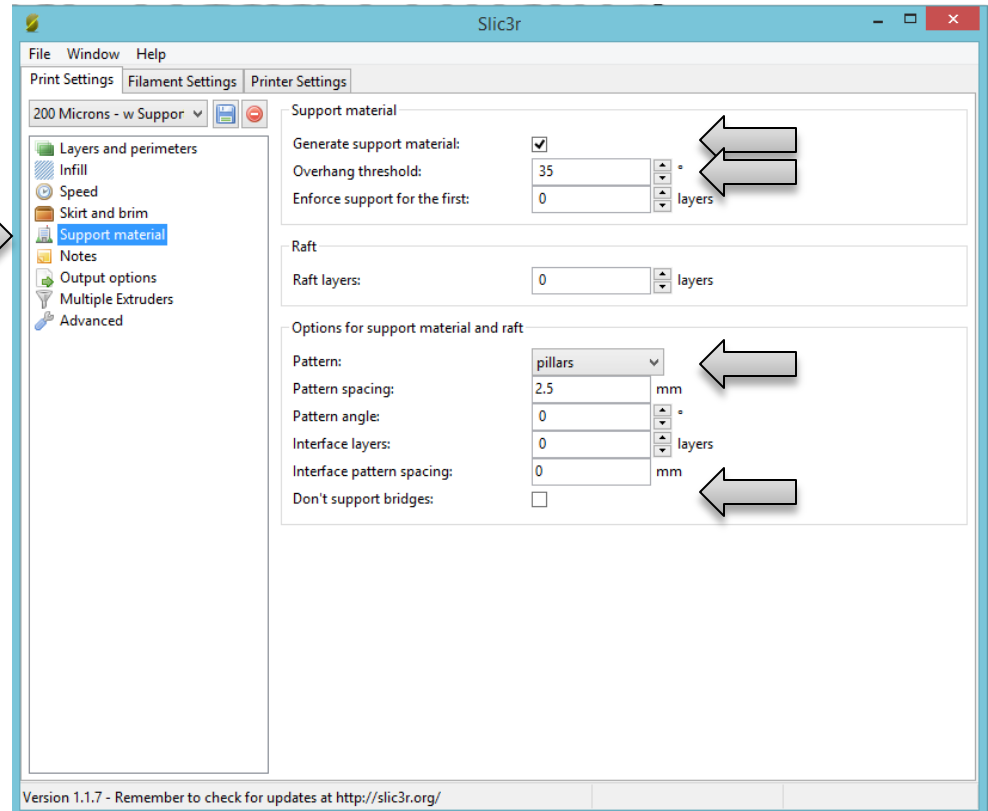
Select “Support material”

“Generate support material” – On

“Overhang threshold” – >35

“Pattern” – ‘pillars’

“Don’t support bridges” – Off



Support Print

Printing Support with a Different Head
Slic3r Recipe Setup:

“Print Settings” tab:

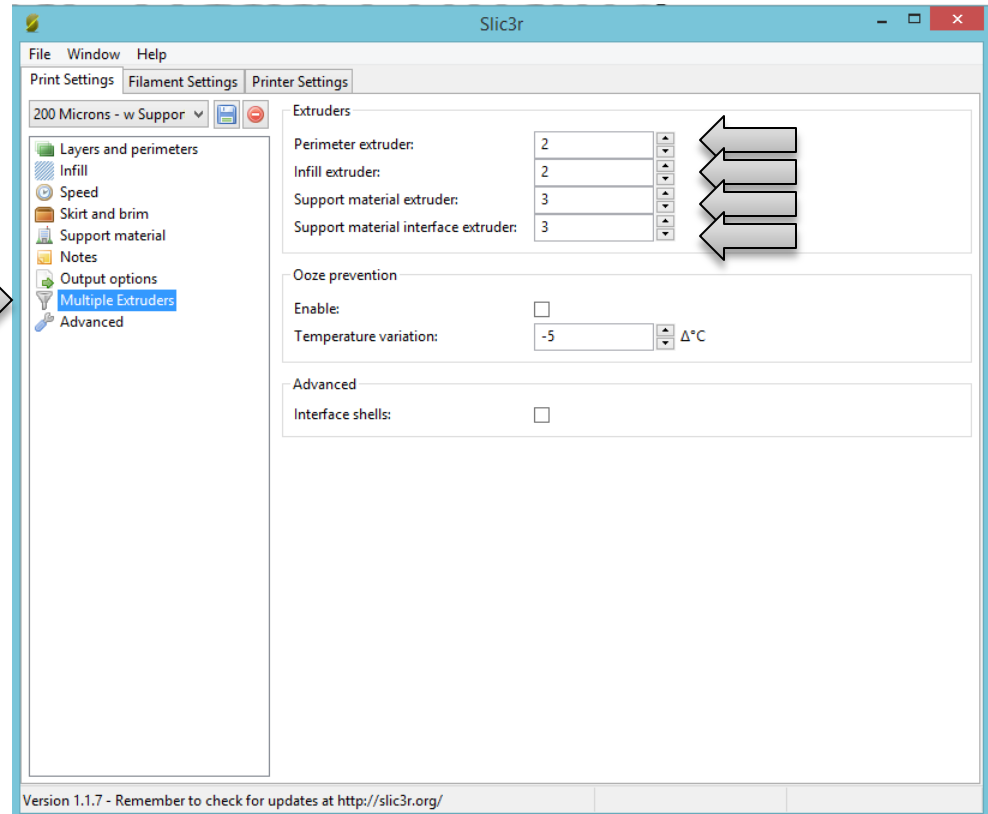
Select “Multiple Extruders”

“Perimeter extruder” – 2

“Infill extruder” – 2

“Support material extruder” – 3

“Support material
interface extruder” – >3



Support Print

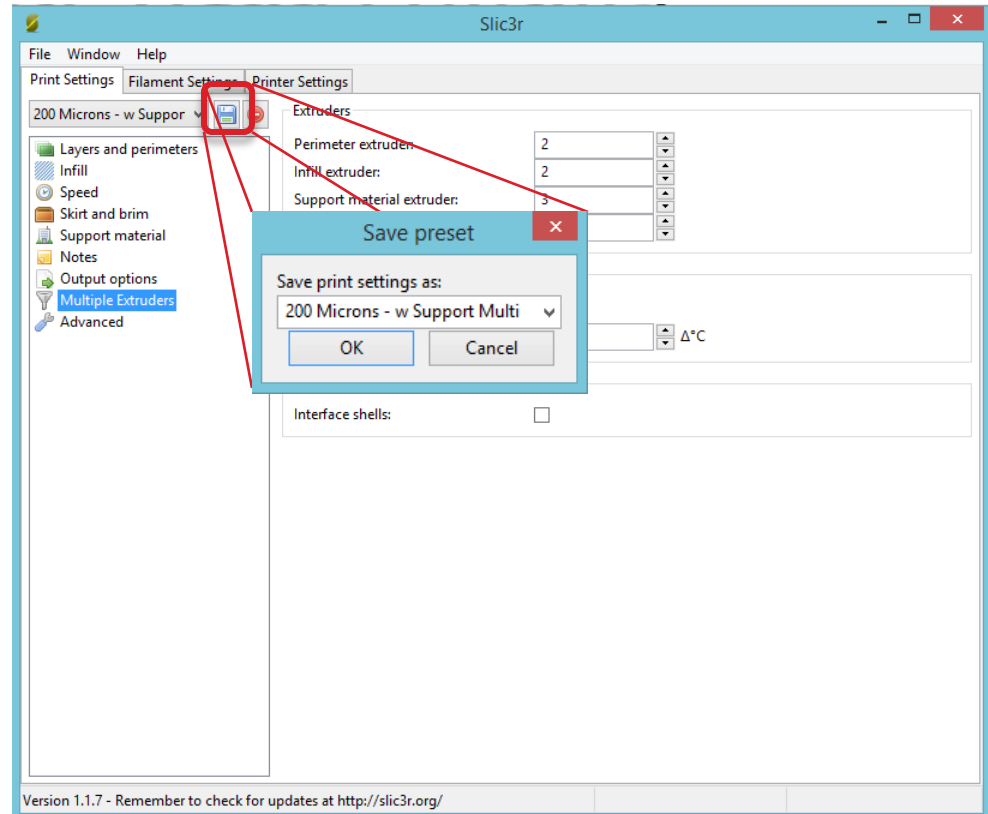
Printing Support with a Different Head
Slic3r Recipe Setup:

“Print Settings” tab:

Click the Save button

In the pop-up window,
name your Slic3r preset / recipe

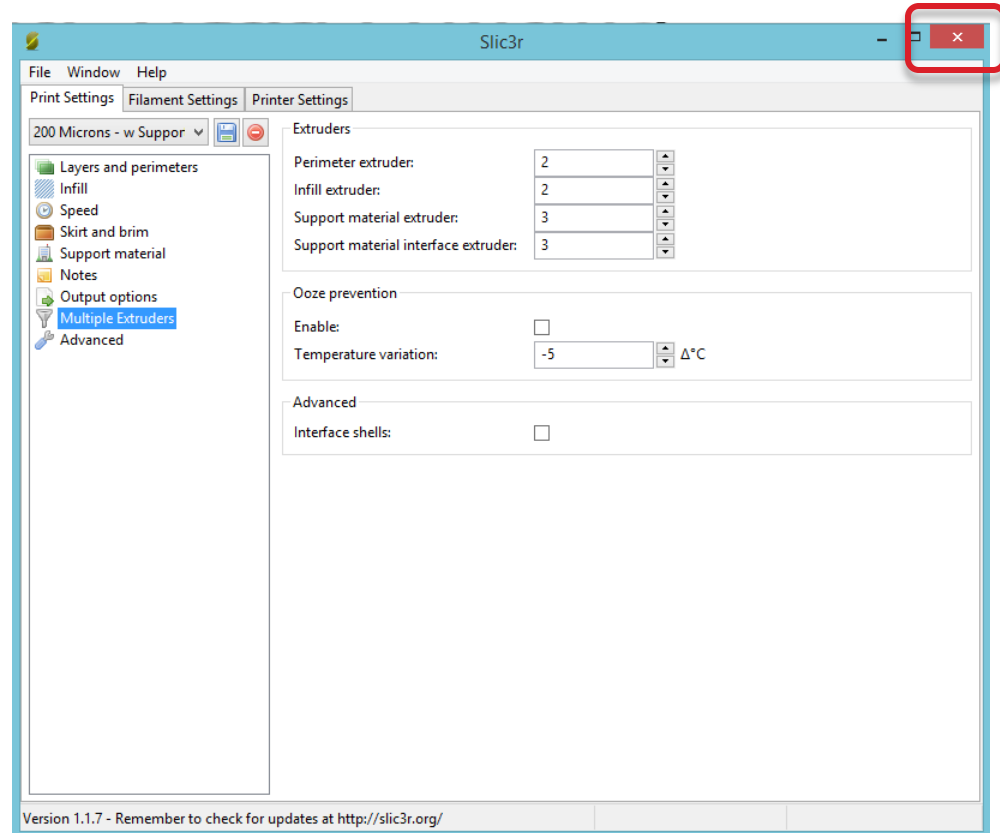
Click OK



Support Print

Printing Support with a Different Head
Slic3r Recipe Setup:

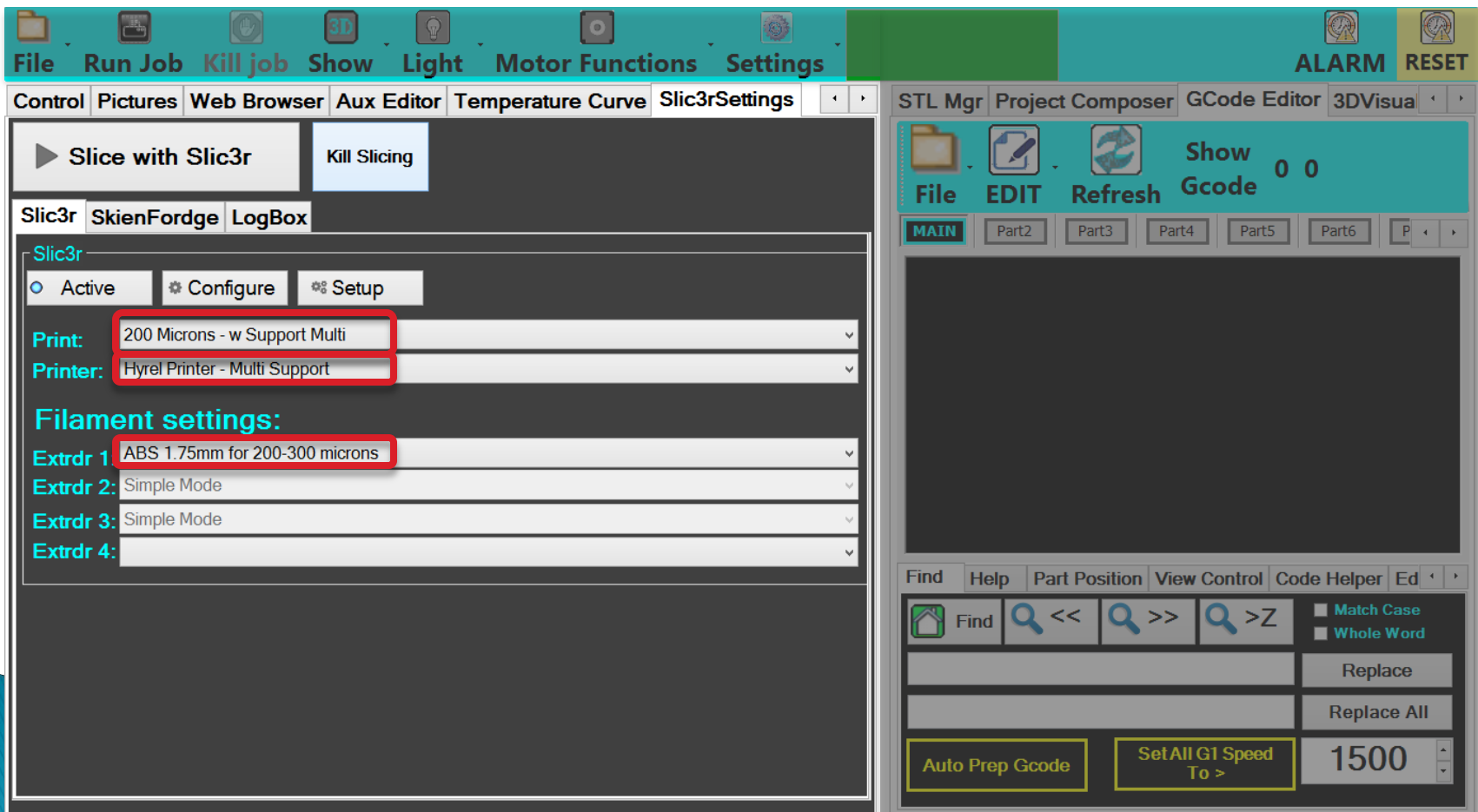
Close the Slic3r Configuration



Support Print

Printing Support with a Different Head

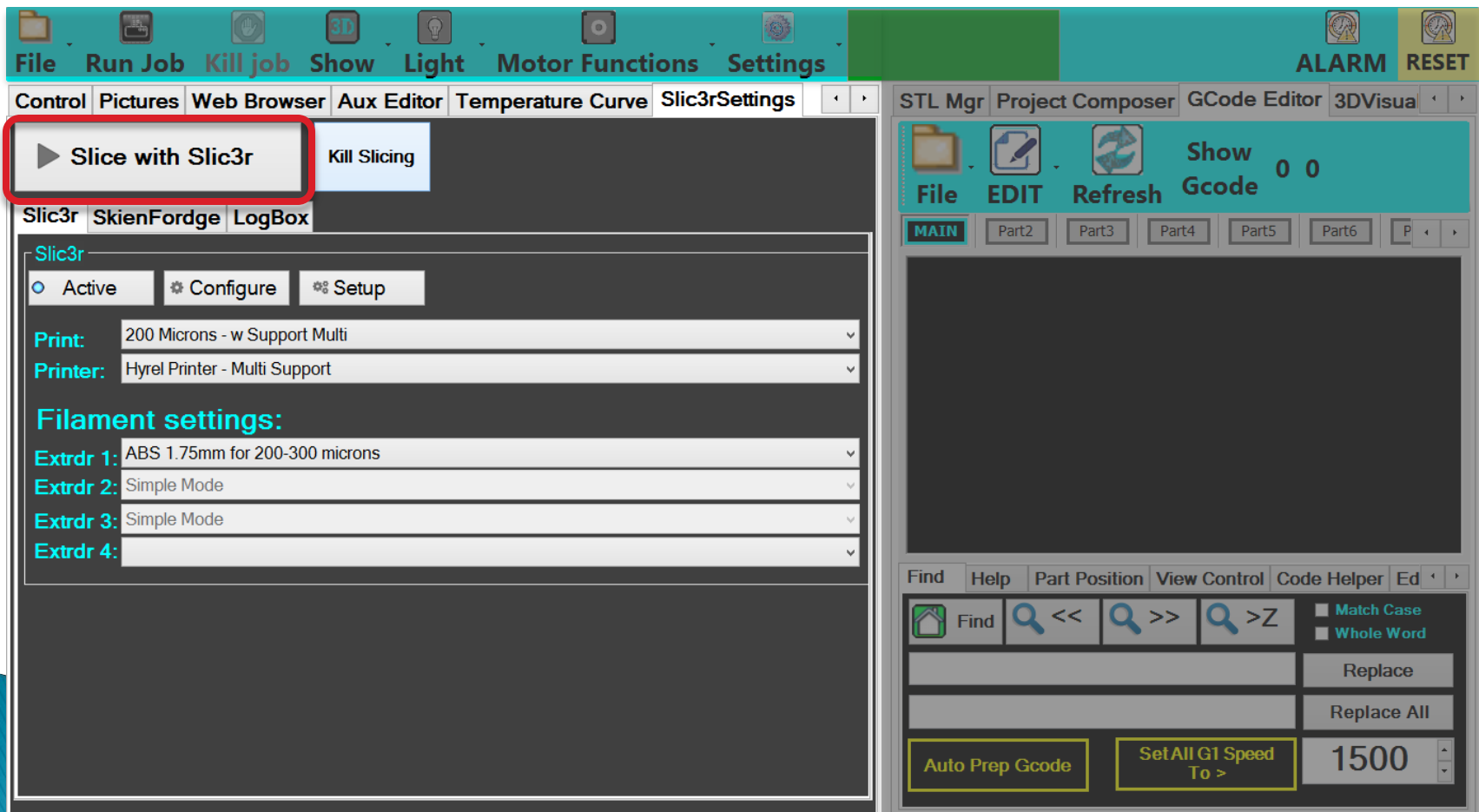
Slic3r Recipe Setup: Select your Print, Printer, and Extruder Recipes



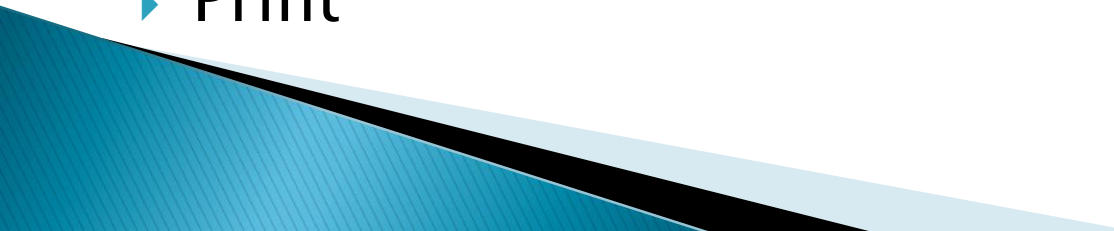
Support Print

Printing Support with a Different Head

Click the “Slice with Slic3r” button to generate G-Code



Support Print

- ▶ At this point, the user should now be able to make the models with the heads installed. They will need to be called out in the Slic3r recipes in order to work properly.
 - ~~▶ Remove all prints from the build surface.~~
 - ~~▶ Turn on the Heat~~
 - ~~▶ Check Tram~~
 - ~~▶ Load your *.stl file~~
 - ~~▶ Orient, Rotate, Scale~~
 - ~~▶ Setup Slic3r recipes~~
 - ~~▶ Slice~~
 - ▶ Print
- 

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