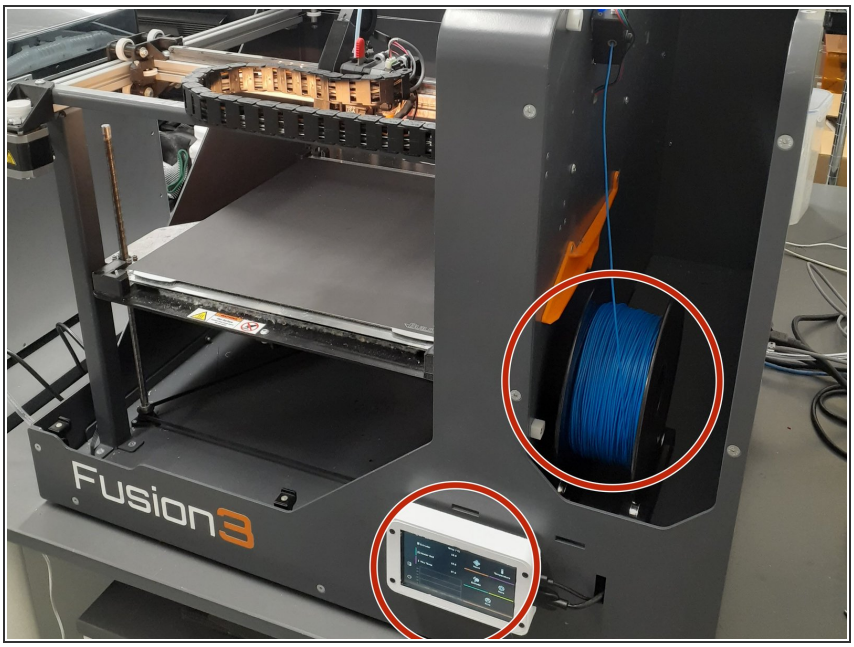
Fusion3 F410 Rebuilt

Written By: Jacob Nickle

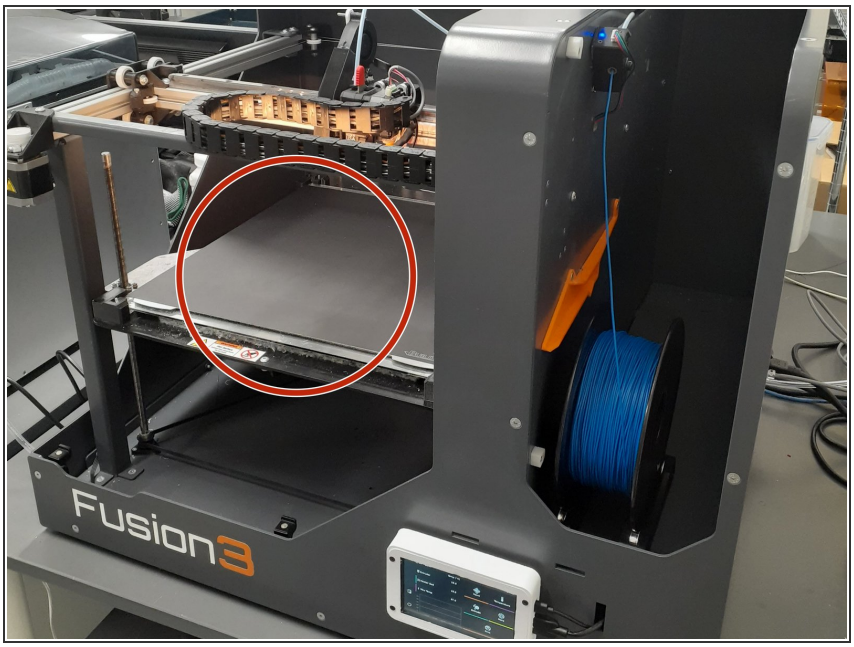


Step 1 — Setup



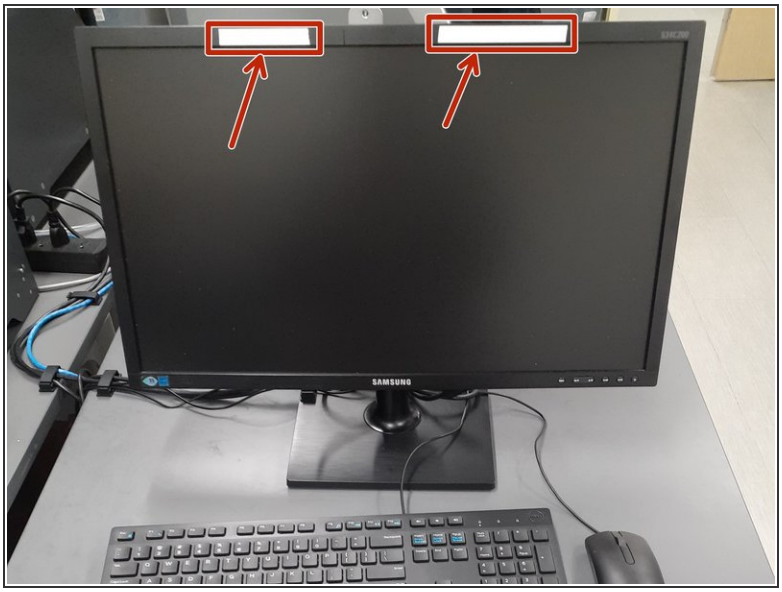
- ⓘ This tutorial is to be used as an introductory tutorial for use of the Fusion3 F410.
  - ⓘ This printer has been rebuilt and is Klipper based.
- Turn on the Fusion3 F410.
  - Tap screen to check if it is already on.
  - If it's not on, the power switch is located on the back right of the printer.
- Verify the build plate is clean and clear from any previous prints.
- Verify or load the correct filament into the printer. A Filament Options Tutorial is available when choosing a filament type.
- Turn on ventilation if required due to filament type.

Step 2 — Build Plate



- Verify or install the correct build plate which corresponds to the type of filament being printed.
  - Build plates are found below the printer, under the table.
  - For PLA, PETG, TPU and others, use the black Buildtak build plate.
  - For ABS, use the yellow PEI build plate.
  - For PC, use glass with a glue stick applied to the surface.

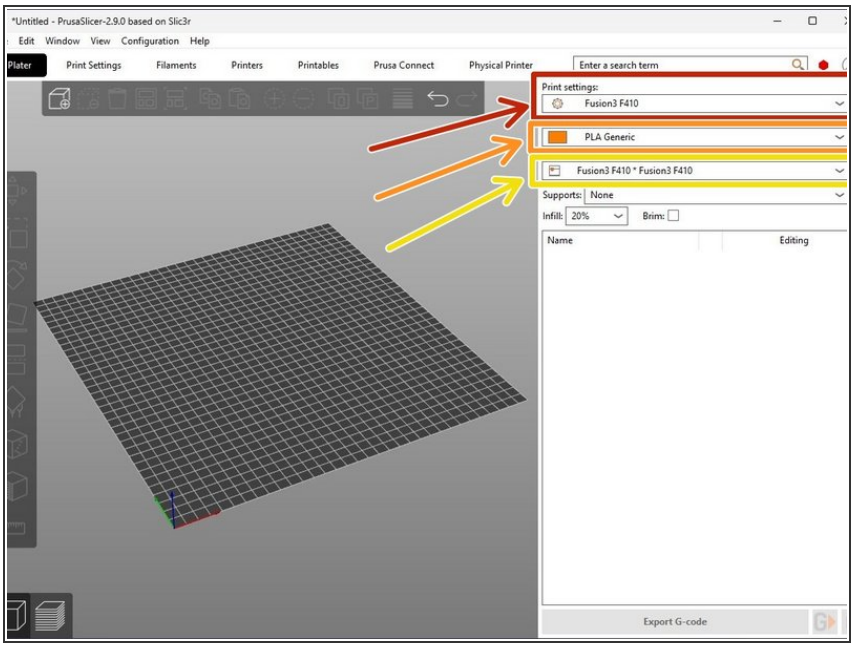
Step 3 — Login





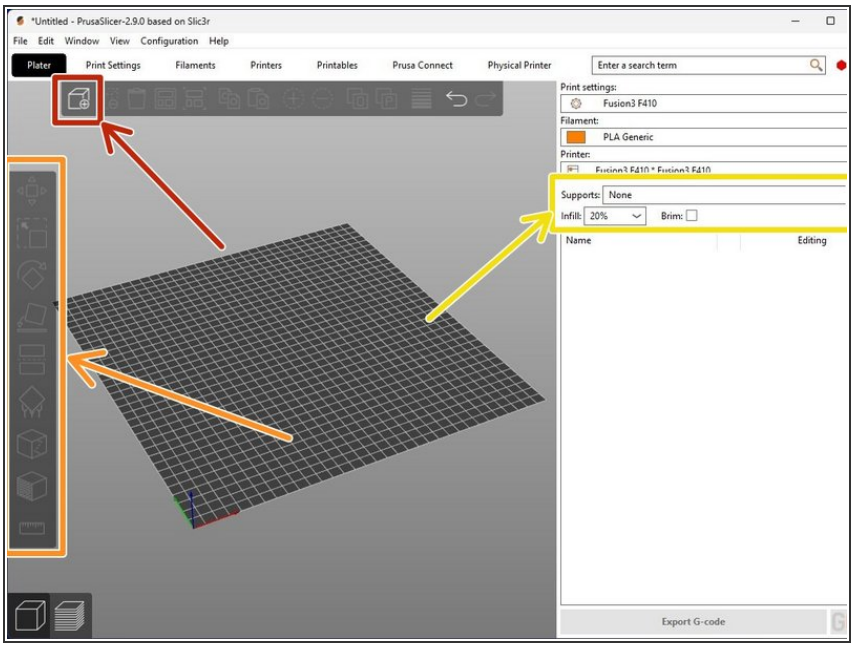
- Log in to the computer near the printer using the credentials at the top of the screen.
- Open the slicer software. In this case, it will be PrusaSlicer.
  - PrusaSlicer Logo is shown in second image.
  - Documentation for PrusaSlicer can be found here.
- Here is the link to the user interface documentation as needed.

Step 4 — Setup



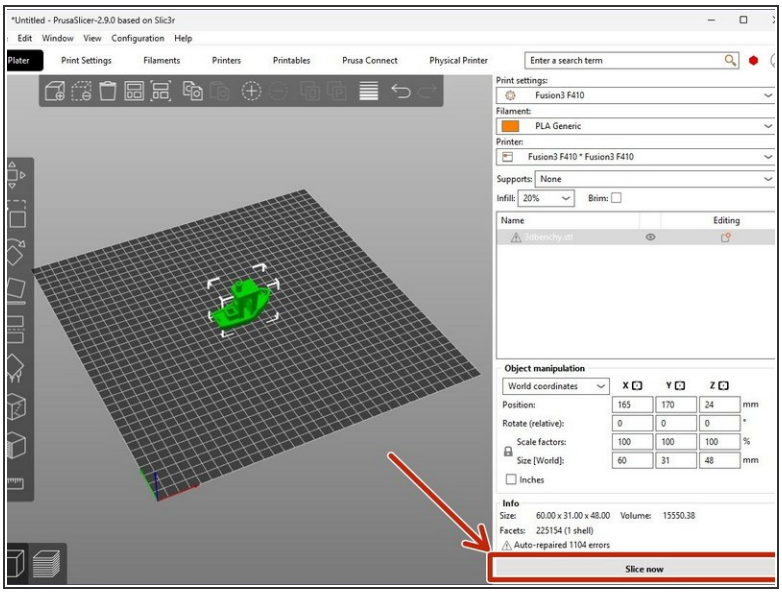
- Verify "Fusion3 F410" is selected under "Print settings"
- Select the correct filament type.
  - A tutorial going through commonly used filament types is found here.
- Within the third text box under "Physical Printers", select "Fusion3 F410".

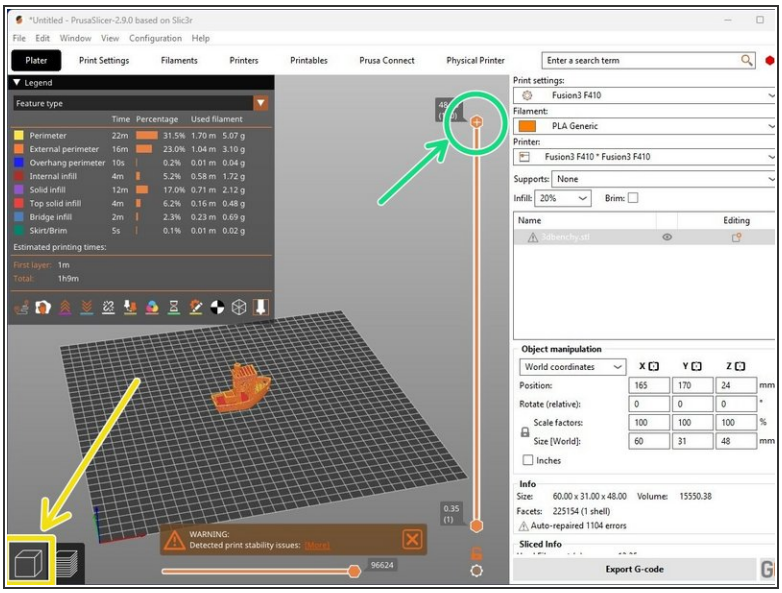
Step 5 — File Upload and Manipulation



- User interface basics for PrusaSlicer can be found here as needed.
- To upload a stl file, select the box as shown in the image.
- Use the object manipulation tools for positioning, scaling, orientation and so forth as discussed in the Object Manipulation tutorial.
  - Placing an object perfectly flat on a build plate is necessary to avoid generating support material or printing difficult angles. More information can be found here.
- Modify the support material options which can be found below the printer selection.
  - For further information on support material and why it is needed, refer to the Support Material tutorial.

Step 6 — Slice



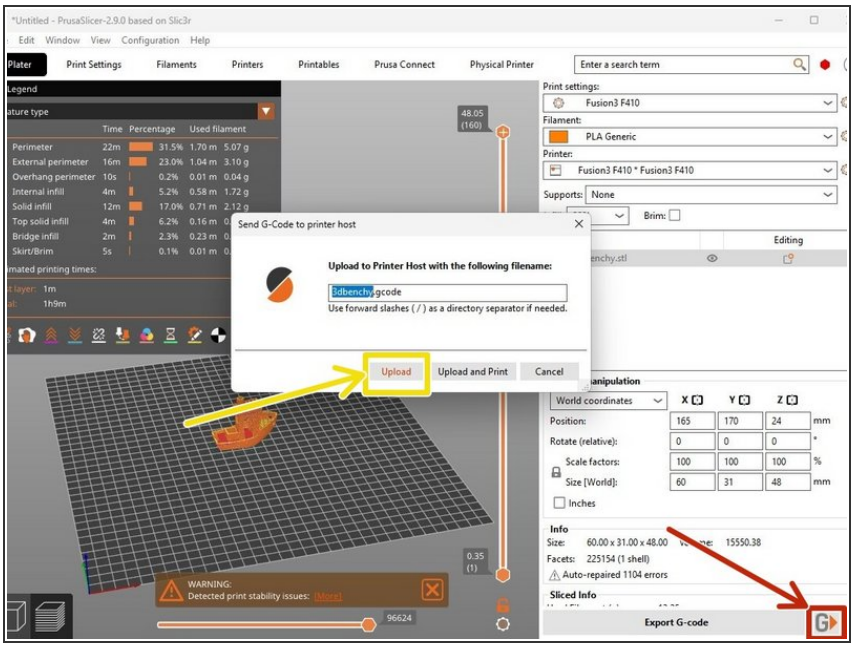


- Once you are satisfied with the orientation of the part, select the **Slice now** button on the bottom right of the window.

ⓘ After slicing is complete, PrusaSlicer will display a preview of the print as demonstrated in the second image.

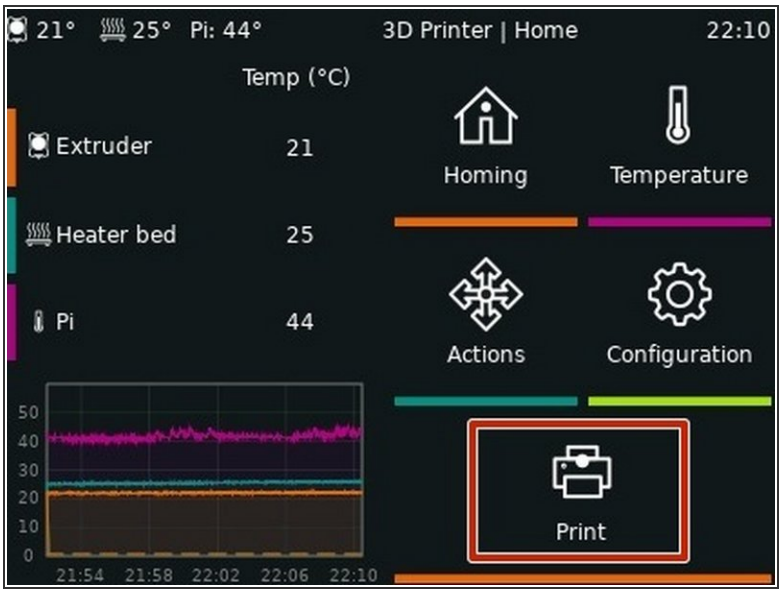
- Verify that the part on the screen is what you wanted.
  - Layer cross section can be viewed by clicking and dragging the orange slide bars on the right side of the window as shown.
  - If further changes are needed, select the 3D box icon on the bottom left of the screen.

Step 7 — Upload to Printer



- Once the file looks ready to print, select the "G" button in the bottom right of the window.
- Rename file to something easily recognizable.
- Select "Upload" to transfer the file to the printer automatically.

Step 8 — Start Print





- On the printer select **Print**.
- Navigate to find the uploaded file.
  - Date and refresh buttons may help.
- Select **Print**.
- After verifying the selected file is correct, select print again to start the print.

⚠ Wait until the first layer prints correctly before leaving.

Step 9 — Conclusion



⚠ This printer requires periodic monitoring.

- The user is expected to check on the printer every two hours.
  - If this is not possible, notify the Lab Director for further instructions.
  - If this is not done, access to the Fab Lab may be revoked.