

3D Printer (PreForm) Quick Walkthrough Booklet

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THE UNIVERSITY OF BRITISH COLUMBIA

School of Biomedical Engineering

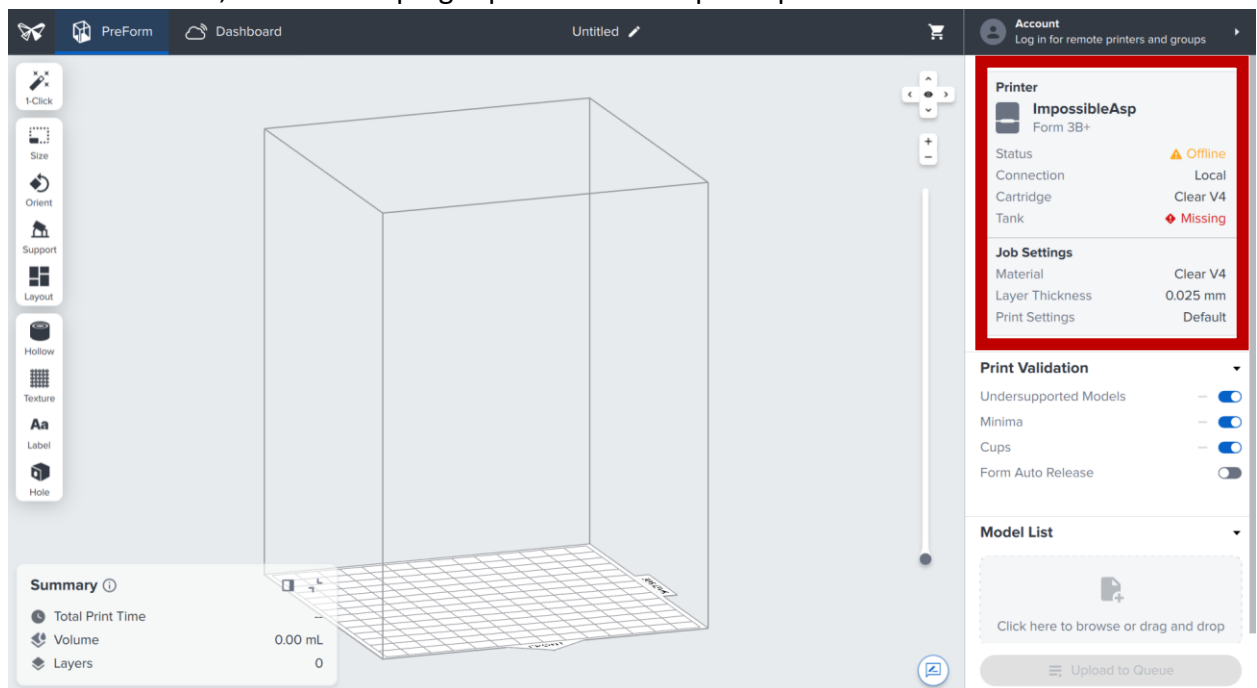
Faculties of Applied Science and Medicine



PreForm: Formlabs Resin Printing

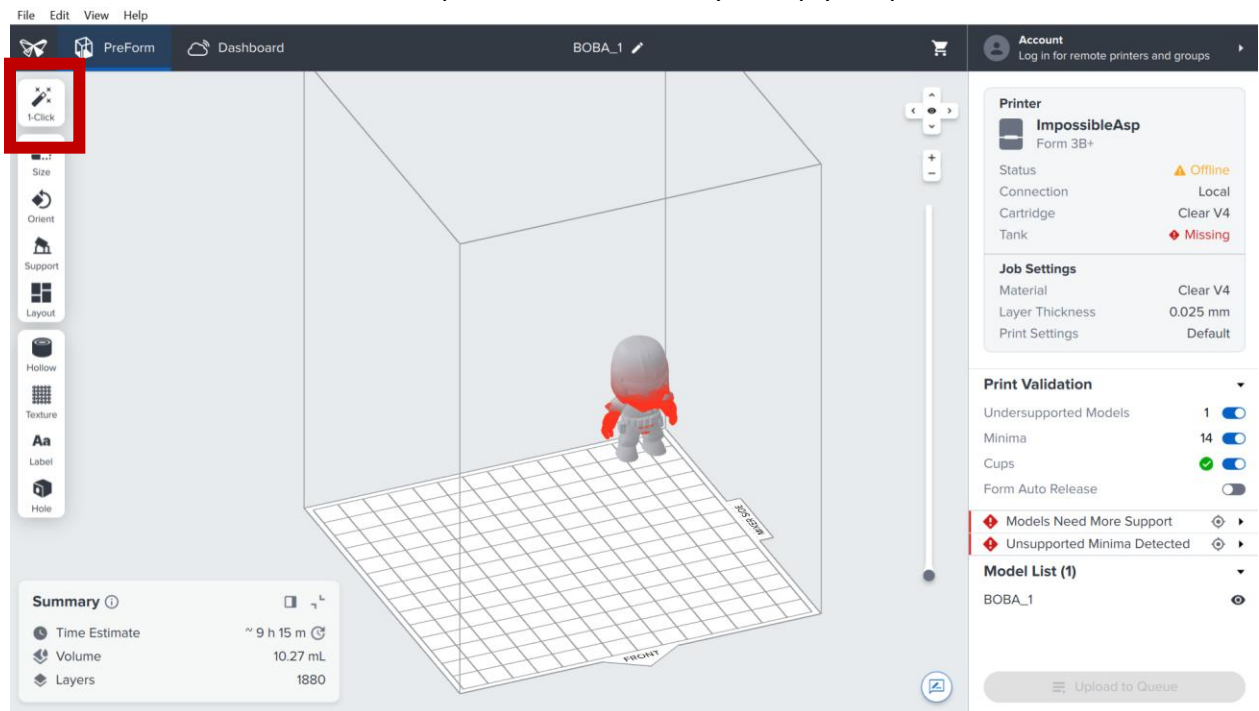
Resin printing is a great way to make highly detailed, accurate, and watertight designs, but it does have a few drawbacks that are important to note. Resin printing can be very expensive, especially if using more specialized resins. It is also time intensive, taking many more times the length of completing the same print on a FDM printer. Due to the time needed and small build plates, resin printers also cannot print as large of objects as the FDM printers. However, with all that said, for smaller parts with high levels of detail, resin printers are definitely a good option to have.

1. Launch PreForm and connect the FormLabs printer to your laptop using the USB cable.
2. Once connected, select the top right pane to choose print specifications.

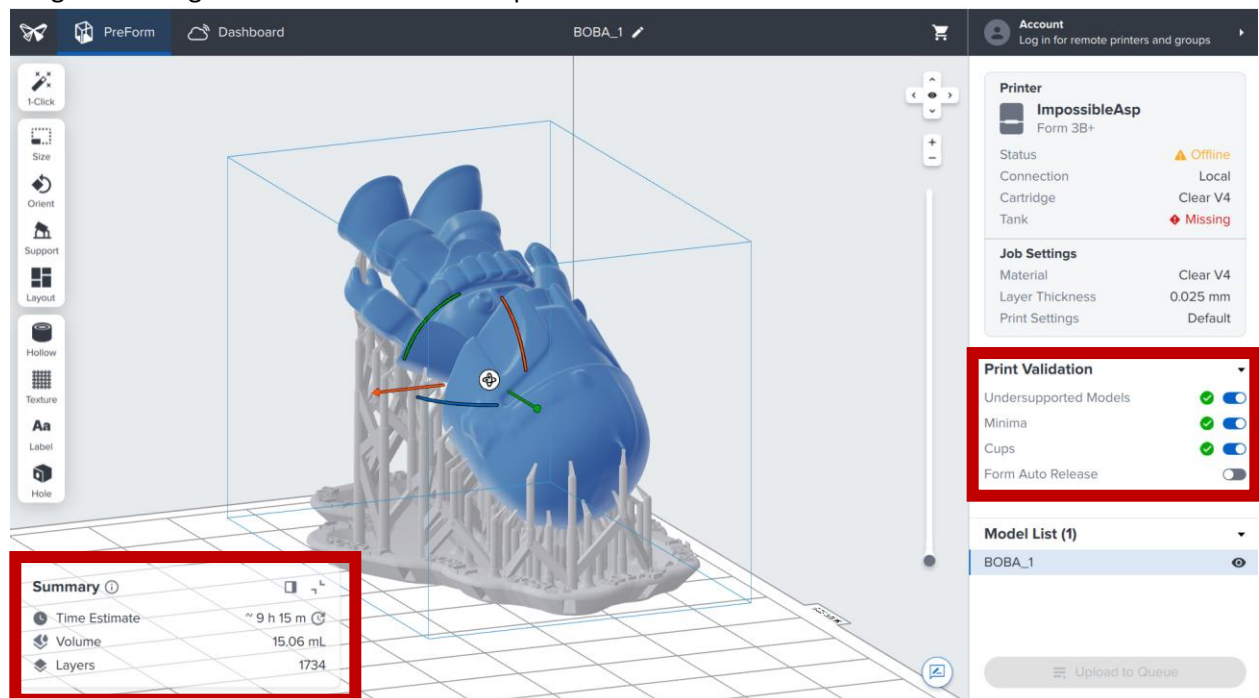


3. In the settings window, select your printer, resin type, and layer thickness.
4. Upload the part (s) you wish to print.

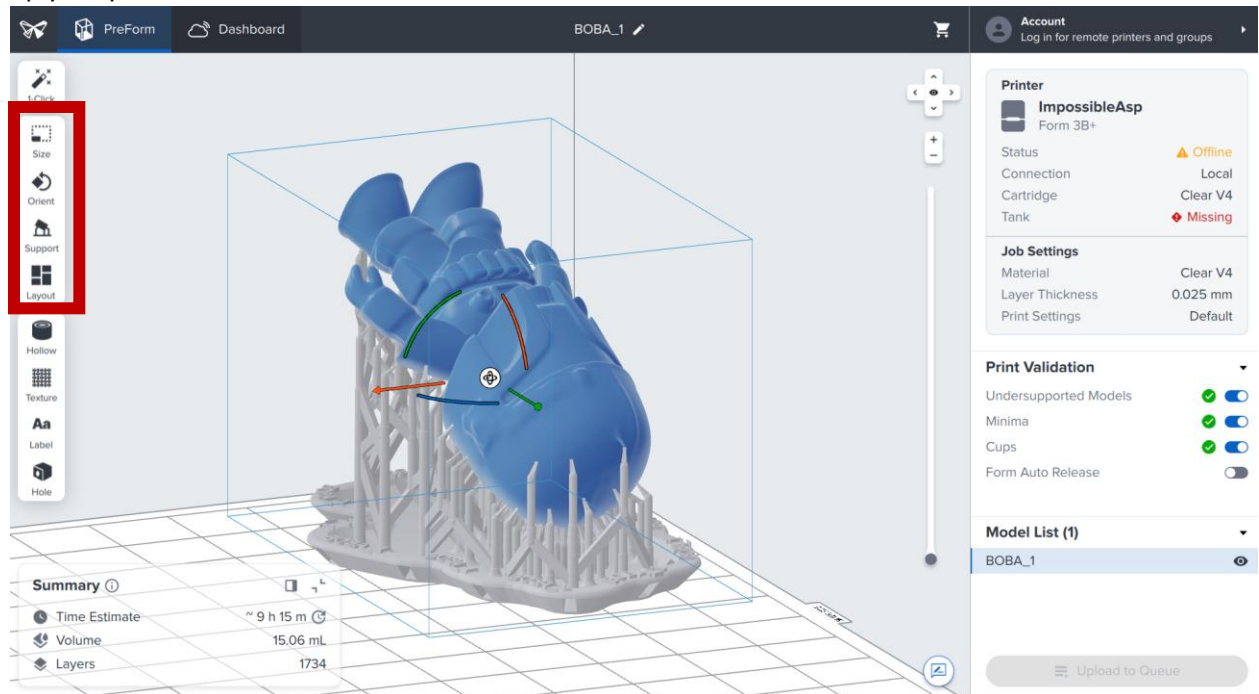
5. Select the 1-click button in the top left to automatically set up your print.



6. Examine the generated print. Confirm validity of orientation, support structure, time, and resin usage. Check right hand side of screen for print validation errors.



7. If necessary, undo the automatic set up and use the support, orientation, and other tools to set up your print on the left side.



8. Other tools which can be used include the creation of drainage holes, hollowing of structures, and the creation of textures. The are located below the orientation tools.
9. Once the print is confirmed for time, resin usage, and validity, the “upload / print” button on the bottom right can be used to begin the print on the Formlabs printer.
10. Once the print is complete, remove the build plate from the printer.
11. Bring the build plate to the wash/cure station and remove the print from the plate using a scraper / spatula.
12. Follow the timing instructions on the wash basin to remove excess resin from the print.
13. Once complete, remove the print from the wash basin and close the lid.
14. Place the print into the cure station and begin curing. Cure time should range from approximately 10-20 mins based on print size.
15. Finally, remove the print from the cure station and use flush cutting snips to remove the support structures.