Bambu Lab FDM Training SOP

Training Checklist:

- Components Overview: print head, xy gantry, build tray,
- Safety: hot printheads & bed, moving components
- Job Setup:
    - At the computer: CAD → export .stl → Bambu Studio OR OrcaSlicer (set upp print parameters and support materials) → select “Innovation Workshop X1C” printer → start print (make sure “Enable AMS” and “Bed Leveling” are selected)→ record in FBS
    - At the printer: remove leftover supports/calibration lines → clean and dry build tray

Safety Concerns

- Both print heads and bed are heated during operation. Do not attempt to clean, remove, or adjust without allowing for adequate cool down time.
    - Wait until it cools down to approximately 60 C

Common Mistakes

- Inadequate part adhesion to the bed - can cause print failure
    - Can be prevented with proper bed cleaning, bed adhesion print settings, and correct build tray alignment

Safe Operating Procedures Review

1. Launch Bambu Studio (green Bambu Lab logo) or OrcaSlicer
2. Start a fresh plate: select File → New Project
3. Import your STL file onto the software: select File → Import → Import 3MF/STL/... → choose your STL file
4. Set up scale, orientation, arrangement, and supports as needed
5. Select the right filament and the right nozzle
6. Slice plate and make reservation on FBS
7. Before starting print, scrape off any leftover support and calibration lines and clean build tray with soap and water
8. Align build tray in printer with the **smaller tab facing the back**
9. Check AMS to see if there is enough filament for your print. If not enough filament, replace the spool
10. Once build tray/printer is all set up, click “Print Plate” on Bambu Studio
    1. Select “Innovation Workshop X1C” for the printer
    2. Make sure only “Bed Leveling” and “Enable AMS” is selected and start print

Post Processing

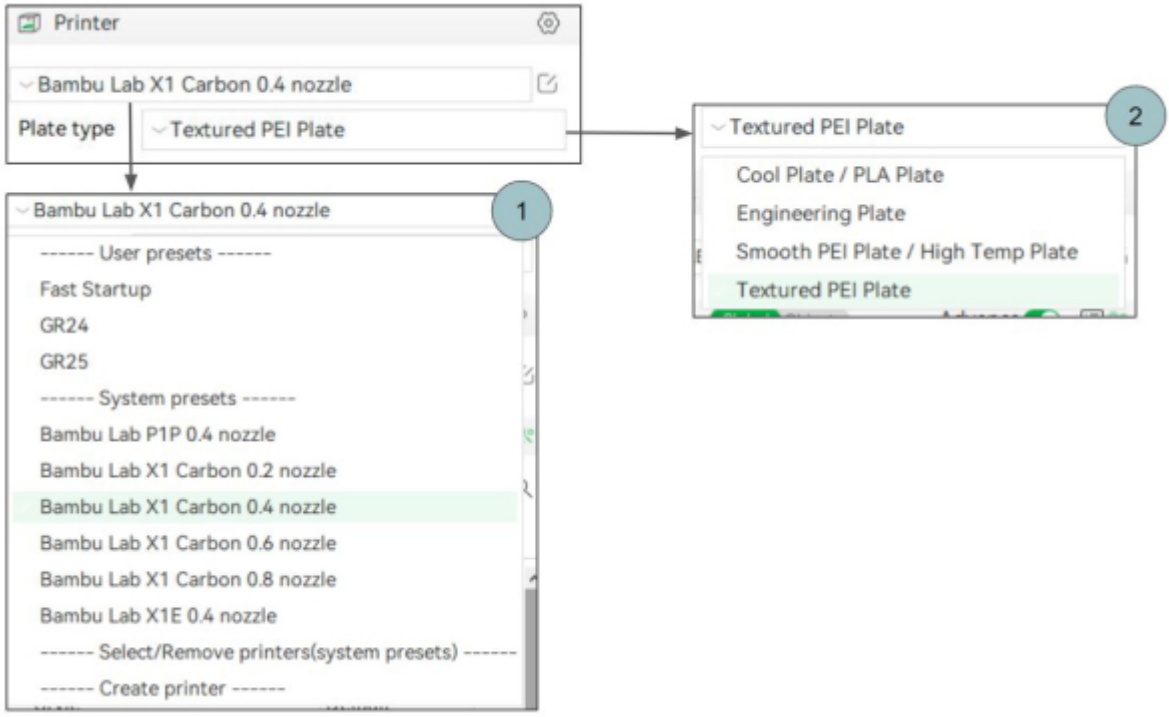
- Remove part from print bed using your hands or a scraper (try not to touch the build tray with

your bare hands)

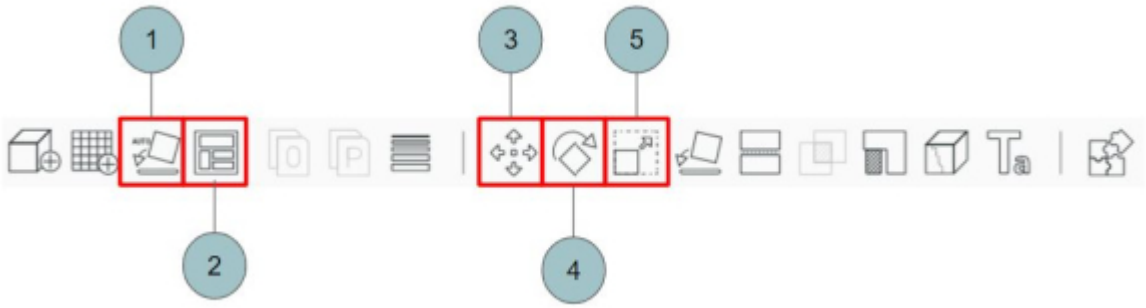
Maintenance

- Scrape off calibration lines on the sides of the build tray
- Bed should be cleaned with soap and water and can be dried using paper towels
    - **DO NOT** touch the surface of build tray with your bare hands. Hold build tray by the tabs

Bambu Studio Software Information



1. Select the correct nozzle that you are using. (Typically, the 0.4 nozzle is the one in the printer)
2. Make sure the “Textured PEI Plate” is selected



1. *Auto Orient*: Gives you the recommended orientation for your print. Usually is the best orientation, but you should still think about specific dimensions and features of your print and the limitations of the printer.
2. *Arrange*: Arranges your models near the center of the build tray
3. *Move*: Allows you to move your model with a relative coordinate system
4. *Rotate*: Allows you to rotate your model in 3 dimensions to get the right orientation for your

print. You can either make rotations dragging around the arrows or by changing the coordinates.

5. *Scale*: Allows you to scale your model to size. (units are in mm)

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