

ANYCUBIC PHOTON MONO 2

Resin 3D Printer

Member Equipment Checkout Document

PURPOSE: This document guides a volunteer through a structured checkout process for the Anycubic Photon Mono 2 resin 3D printer. The volunteer must cover every section with the member before signing off. The verification questions at the end ensure the member has understood and retained the key information.

Section 1: Safety First

Begin every checkout by covering safety. Resin is a chemical hazard and must be handled with care. Ensure the member understands the risks before touching anything.

⚠ SAFETY: Liquid photopolymer resin is a skin and eye irritant and releases fumes during printing. PPE is not optional. Gloves must be worn whenever handling liquid resin, resin-contaminated tools, or a fresh (uncured) print.

⚠ SAFETY: If resin contacts skin, wash immediately with soap and water for at least 5 minutes. If resin contacts eyes, rinse with water for 15 minutes and seek medical attention.

⚠ SAFETY: The air filtration unit reduces vapor exposure. It must be turned ON before the printer cover is removed or any liquid resin is handled.

⚠ SAFETY: Liquid and semi-cured resin is hazardous waste. Cure ALL resin waste solid under UV before disposal in regular trash. Do not place liquid or tacky resin materials directly in the bin.

PPE & Handling Requirements

- Nitrile gloves must be worn at all times when handling liquid resin or resin-contaminated tools.
- Safety glasses or a face shield protect against resin splashes.
- Wear old clothes or an apron — resin stains are permanent.
- Liquid resin is photosensitive — keep it away from direct light until you are ready to print.
- No eating or drinking near the printer.
- Keep the printer cover on while printing.

Section 2: Slicing Software — Anycubic Photon Workshop

The Anycubic Photon Mono 2 uses Anycubic Photon Workshop as its slicer. This free software converts 3D model files (STL, OBJ) into print-ready .pm2 files that the printer reads from a USB drive. Photon Workshop is installed on the makerspace workstation.

NOTE: Members may also install Photon Workshop on their own computers for free from the Anycubic website.

Recommended Learning Resources

- Official Quick Start Guide: [Anycubic Photon Workshop Quick Start](#)
- Official Video Tutorials (select Photon Mono 2): [Anycubic Guide Videos](#)
- Getting Started / Unboxing Guide: [Getting Started with Photon Mono 2](#)
- Printer Manual (PDF): [Anycubic Photon Mono 2 Manual](#)

Walk Through With the Member — Hands On

- Open Photon Workshop and confirm the correct printer profile is selected (Photon Mono 2).
- Import a model file (STL or OBJ) using File > Open.
- Use the Move, Rotate, and Scale tools to orient the model for printing.
- Demonstrate the Auto-Support or manual support tools. Explain that most models require supports to print successfully.
- Review the print settings panel: layer height (0.05 mm default), exposure time, and lift speed.
- Slice the model and review the layer preview to check for obvious issues.
- Export the sliced file to the USB drive. The output file will have a .pm2 extension.

Section 3: Basic Machine Operation

Show the member how to power on the printer and navigate the touchscreen. They should be able to start, pause, and stop a print without assistance.

Powering On & Navigating the Touchscreen

- Power switch is located on the rear panel of the printer.
- After powering on, the touchscreen displays the main menu with Print, Tools, and Settings options.
- Insert the USB drive and tap Print to browse for the sliced .pm2 file.

Before Starting Any Print

- Confirm the build plate is properly seated and leveled. Refer to the printer manual if releveling is needed.
- Confirm the resin vat is seated and vat screws are finger-tight.
- Confirm the air filter is ON before removing the printer cover.

During the Print

- The Pause button allows you to add resin mid-print or inspect progress. Always re-cover the vat before resuming.
- If a print fails, press Stop, remove the build plate, and inspect the vat for cured debris before attempting another print.

NOTE: Typical print times range from 30 minutes to several hours depending on model size and layer count. The member should plan accordingly and not leave prints unattended for extended periods without checking in.

Section 4: Filling the Resin Vat

Filling the vat is the first hands-on contact with liquid resin. Gloves must be on before the resin bottle is opened.

⚠ SAFETY: Never fill the vat beyond the MAX fill line. Overfilling causes resin to overflow onto the LCD screen, which can permanently damage the printer.

Fill Procedure

- Gloves on and safety glasses on before opening the resin bottle.
- Gently shake or stir the resin bottle to ensure it is well mixed before pouring.
- Pour slowly and at an angle into the vat. Watch the MAX line on the inside of the vat wall — stop well before it.
- You can always add more resin mid-print using the Pause function — do not overfill upfront.
- Replace the printer cover before starting the print to protect the resin from ambient light.

Section 5: Recovering Leftover Resin

After printing, remaining resin in the vat must be filtered and stored properly. This protects the resin for future use and protects the FEP film.

NOTE: Do not leave liquid resin in the vat for more than 3 days. Resin left sitting can cure under ambient UV and damage the FEP film at the bottom of the vat.

⚠ SAFETY: Keep gloves on throughout this process. Wait for the build plate to fully rise before touching anything.

Recovery Procedure

1. Wait for the build plate to rise fully after the print completes.

2. Remove the build plate carefully. Hold it over the vat briefly to let drips fall back in.
3. Use the funnel with a strainer or filter to pour resin slowly from the vat back into its original bottle.
4. Use a plastic or silicone scraper to gently push remaining resin toward the pour spout. Never use metal tools — they will scratch the FEP film.
5. Wipe the inside of the vat with paper towels or a microfibre cloth. Clean the sides and edges.
6. Inspect the FEP film (the clear film at the bottom of the vat) for cloudiness, scratches, or stuck cured debris. Report any damage to makerspace staff.
7. Seal the resin bottle and store it in a cool, dark location away from UV light.

Section 6: Air Filtration Unit

The air filtration unit next to the printer helps mitigate resin vapors during and after printing. Its use is required for all resin printing sessions.

⚠ SAFETY: The air filter must be turned ON before opening the printer cover or handling liquid resin. Resin fumes can cause respiratory irritation with prolonged exposure.

Operation

- Locate the air filter unit positioned next to the printer.
- Turn the unit ON before removing the printer cover for any reason.
- Verify the fan is running and that airflow is not obstructed.
- Leave the filter running for at least 10–15 minutes after the print is complete and the vat has been recovered.
- If you notice reduced airflow or persistent strong odors, notify makerspace staff — the filter media may need replacement.

Section 7: Washing and Curing Prints

After a print is removed from the build plate it is coated in liquid, uncured resin. The print must be washed and post-cured before it can be safely handled with bare hands.

NOTE: The full procedure for the Wash & Cure station is covered in a separate checkout document. Confirm the member knows where to find it and that it must be completed before their first print.

⚠ SAFETY: Do not touch uncured prints with bare hands. The resin can cause skin sensitization with repeated exposure. Keep gloves on until the print has been washed and fully cured.

Key Points to Cover

- Fresh prints off the build plate are coated in liquid resin — keep gloves on.
- The wash step removes surface resin using IPA in the wash station.
- The cure step hardens the print fully using UV light, making it safe to handle and reaching its final strength.
- Skipping washing or curing will result in a print that is sticky, brittle, or potentially harmful to touch.

Section 8: End-of-Session Cleanup

Every member is responsible for leaving the printer and workstation in the same condition they found it — or better. This is a shared resource; proper cleanup protects the equipment and the next user.

⚠ SAFETY: Resin-contaminated paper towels and wipes must NOT go directly into the trash. Spread them flat and expose them to UV light (sunlight or the cure station) until they are no longer tacky, then dispose of them as solid waste.

Cleanup Sequence

8. With gloves on, wipe the build plate clean with IPA and paper towels. No resin should remain on the surface.
9. Wipe any resin drips from the printer exterior with IPA.
10. Recover leftover resin from the vat (see Section 5) and clean the vat interior.
11. Lay all resin-contaminated paper towels flat and expose them to UV light until solid before placing in trash.
12. Remove gloves by peeling from the wrist without touching the outer surface. Dispose of gloves properly.
13. Wash hands thoroughly with soap and water.
14. Return all tools — scrapers, funnels, resin bottle — to their designated spots.
15. Replace the printer cover.
16. Turn off the printer.
17. Leave the air filter running for at least 10–15 minutes after cleanup before turning it off.

Section 9: Member Verification Questions

INSTRUCTIONS FOR VOLUNTEER: Ask the member each question below. Do not prompt or hint. The member should answer from memory. If a question is answered incorrectly or incompletely, return to that section and review it again before proceeding. All questions must be answered satisfactorily before signing off.

⚠ IMPORTANT: Do not authorize a member who answers incorrectly or expresses uncertainty about safety procedures. Offer to schedule a second checkout session if needed.

Q1: What PPE should you always wear when working with resin, and why?

Expected Answer: *Nitrile gloves and safety glasses at minimum. Resin is a skin and eye irritant; gloves prevent contact with liquid or uncured resin.*

Q2: Before pouring resin, what should you check on the resin vat?

Expected Answer: *The vat is properly seated and the vat screws are finger-tight. Inspect the FEP film for damage.*

Q3: What is the maximum fill level for the resin vat, and what happens if you exceed it?

Expected Answer: *The MAX fill line marked on the inside of the vat. Overfilling causes resin to overflow onto the LCD screen and can permanently damage the printer.*

Q4: When should you turn on the air filter, and how long should you leave it running after a print?

Expected Answer: *Before opening the printer cover or handling liquid resin. Leave it running for at least 10–15 minutes after printing and cleanup are complete.*

Q5: How do you safely recover leftover resin from the vat when you are done printing?

Expected Answer: *Use a funnel with strainer to pour resin back into its original bottle, then scrape remaining resin with a plastic or silicone scraper and wipe the vat clean.*

Q6: What tool should you use to scrape resin from the vat, and what should you never use?

Expected Answer: *A plastic or silicone scraper. Never use metal tools — they will scratch and damage the FEP film.*

Q7: What must you do with resin-contaminated paper towels before putting them in the trash?

Expected Answer: *Lay them flat and expose them to UV light (sunlight or the cure station) until they are fully cured solid before disposing.*

Q8: Where do you find the procedure for washing and curing your finished print?

Expected Answer: *The separate Wash & Cure Station checkout document available at the makerspace.*

Q9: Walk me through the steps you would take to clean up after a completed print.

Expected Answer: *Wipe build plate with IPA, wipe printer exterior, recover resin from vat, cure waste paper towels, remove and dispose of gloves safely, wash hands, return tools, replace printer cover, turn off printer, leave air filter running.*

Q10: What would you do if you accidentally got liquid resin on your skin?

Expected Answer: *Wash immediately with soap and water for at least 5 minutes. For eye contact, rinse with water for 15 minutes and seek medical attention.*

Section 10: Checkout Sign-Off

If both parties confirm this checkout was completed in full, the member is authorized to independently operate the Anycubic Photon Mono 2 Resin 3D Printer.

Volunteer, please enter the proper information into the Checkout tracking system. The member will receive a copy of this document as a result. This will also add the member to the list of members that can reserve the machine for use.