## **Workshop Wizard Handbook**

Microfluidics Lab Routine Maintenance

## Chores

- 1. Check and replenish paper towels in dispensers Paper towels are stocked in brown paper packages on the shelves along the wall by the entrance.
- 2. Check and replenish gloves Check if any glove boxes are about to run out. If they are, open up the next one on top of the stack and add a new box of gloves to the bottom of the stack. Make sure there are both nitrile and latex gloves to use. Gloves are stocked on the shelves along the wall by the entrance, as well as above the vacuum furnace.
- 3. Tidy up bench spaces Properly dispose of sharps and put away tools/supplies.
- 4. Sweep and mop Walkways and under benches Use the general maintenance cart located in the hallway outside the lab. Cleaner is stored in the cabinet under the sink.
- 5. Check and replenish hazardous waste labels
- 6. Check sharps containers If full, tape off the top and place in the hazardous waste bin.
- 7. Check glass waste bin If full, seal and tape off the top.
- 8. Make sure all cabinets are locked
- 9. Check and replenish Kim wipes at every station Kim wipes are stocked on the shelves along the wall by the entrance.
- 10. Refill solvent squirt bottles in fume hood Fume hood should have 3 bottles of IPA, 2 bottles of Ethanol, Acetone. Large jugs under the hood in the cabinet. New jugs in the cabinet labeled "extra solvents." Wear gloves and lab coat; do all refilling in the fume hood. Keep empty solvent bottles as waste bottles. NOTE: Acetone will drip when refilled due to pressure differences.
- 11. Monitor the hazardous waste jugs Place in hazardous waste bin if needed
- 12. Top off the Sonicator with DI water.
- 13. Replace the paper towels in the spin coaters if needed. Paper towels will have oil streaks if the spinner has been used.
- 14. Top off cutting fluid in diamond cutter The blue fluid by the CNC drill
- 15. Restart the Objet Printer IN THIS ORDER: Turn computer and Objet off. Turn Objet on (use mirror to find power switch in the back). Turn computer on. Open remote desktop. Open Objet application on remote desktop. Open Object Studio software on main desktop.
- 16. Replace empty resin and waste containers in the printer Check software. If the resin level is red or has an hourglass, it cannot be put back in once taken out. Avoid wasting resin. Restock spare materials in the grey bin under the printer. Print new labels if necessary.
- 17. Clean the pressure washing station Make sure water is off (both levers should be down). Check

the yellow gloves and replace torn.

- 18. Restock Thinky Mix Uline jars Stored below the workbench
- 19. Replace dirty bench liners Remove, wipe area, and place a new one shiny side down.
  - Unordered List ItemStored under the workbench near gloves.
- 20. Turn off Olympus microscope
- 21. Turn off Keyence light
  - Power button.
- 22. Refill CNC drill squirt bottle
  - Unordered List ItemUse blue coolant.
- 23. Clean the laser cutter
  - Unordered List ItemTake out the (layer with a bunch of hexagons) and vacuum small bits from the potter
- 24. Clean laser cutter lens
  - Tools in yellow bin.
  - Place bubble wrap under the laser (in case the lens drops)
  - Unscrew the cap
  - Use 1 drop of cleaner and a lint-free cloth to polish both sides of the lens.
  - Replace the lens, convex side should be facing down. Do not overtighten.
  - NOTE: The convex side of the lens will have a more prominent (relative to the concave side) dot in the center.
  - The grey knob on the laser will release the mirror for cleaning if necessary.

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