# HOW TO USE THE FORM 1+ RESIN PRINTER

Prepare resin tray…

1. If resin tray is empty & dry, clean trays' foor with soft cloth, then slide tray forward into printer until it clicks into place. **Do not touch outside bottom of tray**.

2. Carefully remove resin tray's black cover (**important**). A stuck cover can crack sides of tray.

3. Inspect liquid in tray. If you see particles, use comb (on black cart next to sink) to sift and remove stray resin pieces.
   a. If resin is stuck to tray's floor, do **not** use scraper to remove! Use gloved fingers to slightly push/flex tray's floor, then slide & remove hardened resin with fingers.

4. Check tray fill level. If more resin is needed, gently shake bottle, then fill to fill line.
   a. **Do not fill past fill line! It will damage printer**
   b. Do not mix resin colors/types
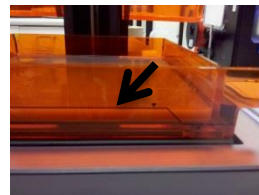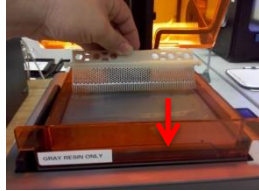
5. **Close orange cover when finished; never leave it open.**

Choose printer settings…

1. Open PreForm program by clicking its icon in the 3D Lab folder on desktop. Skip prompts for the "quality improvement" and "What is PreForm?"

2. On Print Setup screen, change "Form 2" printer to "busysquirrel".
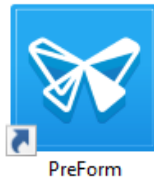
3. Choose "Material" (color/type) and "Version" fields based on resin bottle's label.

   Material
   Black

   Version
   V3 (FLGPBK03)
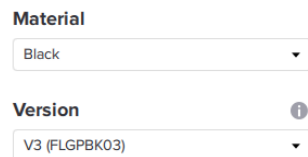
4. Choose Layer Thickness (right side provides more detail but requires more time to print), then click blue Apply button.

   Layer Thickness
   Fastest Print
   100   5
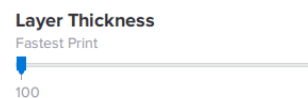
Load object in program…

1. Load your object's STL file via "File > Open" menu.

2. Click [Orientation] then [Orient Selected] to rotate object to optimal printing angle. Diagonal orientation is normal.

3. Click [Supports] then [Generate Selected] to create support structures to hold object in-place while printing.

4. Click [Layout] on ribbon, then [Layout All] to arrange object onto build platform.

Start printing…

1. Ensure black build platform is mounted and silver metal bottom has a clean build surface (no hardened, bumpy, nor wet resin on it).

2. Turn on printer (push button on front).

3. On computer, click orange "butterfly" icon, then click orange "Upload Job" button.

4. When the printer displays "Build platform? Tank and resin?" press power button to start printing.

While printing…

1. Your part will print upside down; build platform will slowly lift from the resin tray.

2. Check printing process every 30 minutes. **Do not print overnight or when no one is in the room**.

3. If pieces of your object fall into resin tray, hold-down power button for five seconds to cancel printing.

After printing…

1. Wear safety rubber gloves. These are located on the black cart beside the sink.

2. Open orange cover, lift black lever on build platform, then slide platform toward you to remove.

3. **Replace black lid on resin tray, close orange cover.**

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4. Close black lever on build platform (with your part on it).

5. Take platform to sink area, then place upside-down on cleanup station next to sink.

6. **Carefully** remove object with metal scraper. Keep your other hand safely away from the scraper!

7. Place object in rinsing bin on right side of station, then gently agitate up and down on black rinsing rack for two minutes.

8. Move object to left-side rinsing bin, soak for 10 minutes (use timer). Remove object

9. **Tightly cover both rinsing bins.**

10. Use side-snips to remove unwanted supports from your object. If sticky or rubbery, expose object to sunlight for several hours to harden.

Cleaning up (very important)

Please perform the following steps to prevent resin from hardening and damaging printer:

Do not allow wet/liquid resin in/down the sink! It will harden in the water pipes.

1. Wearing rubber gloves, clean silver side of build platform with paper towels wettened with rubbing alcohol **(do not use a cloth rag).**

   a. Open orange printer cover
   b. Slide build platform (silver side down) onto rail at top of printer.
   c. Flip build platform's lever down
   d. Close orange printer cover

2. Clean metal scraper & side snips with paper towels & rubbing alcohol.

3. Clean comb by rinsing rubbing alcohol on it.