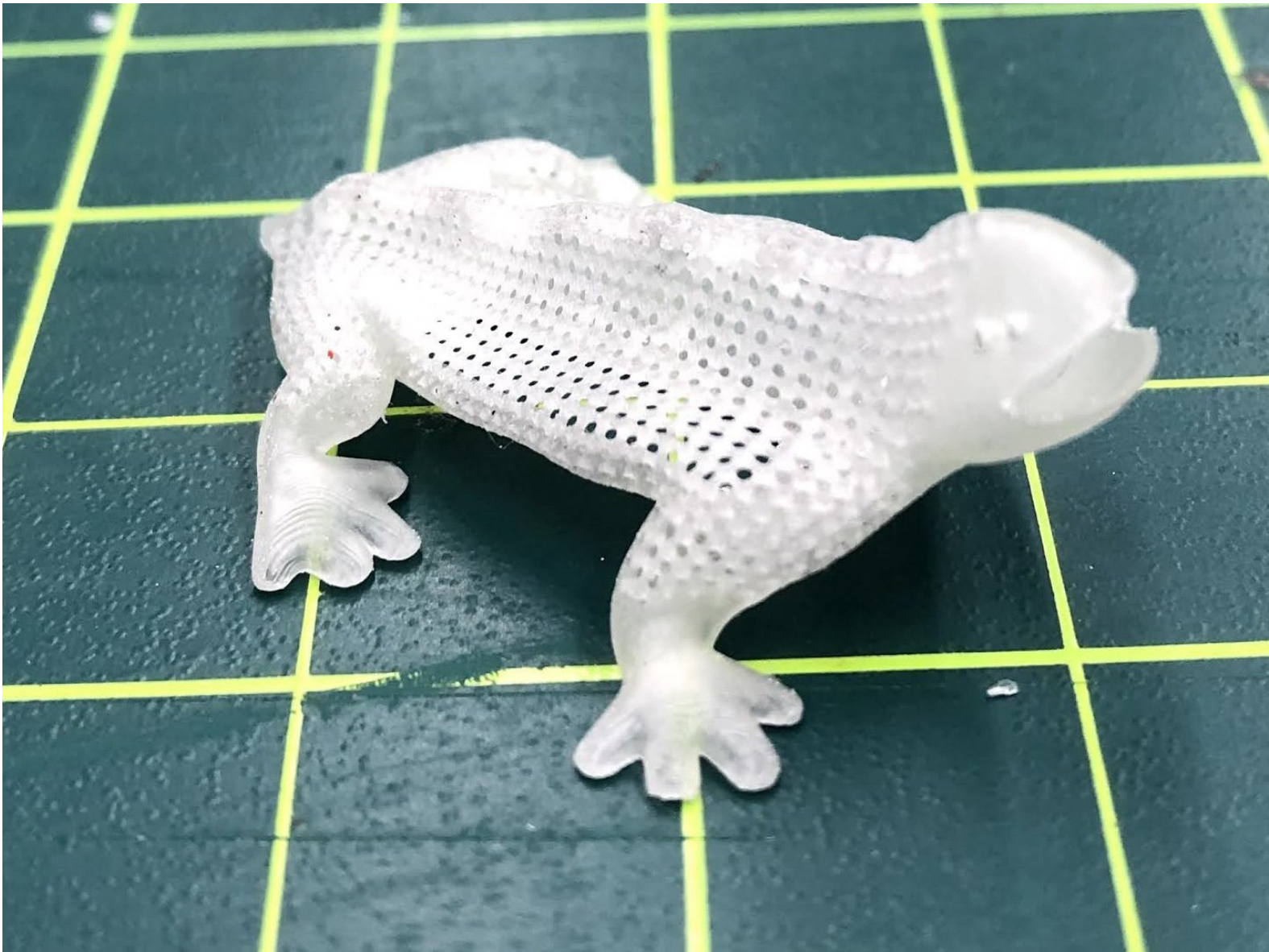




Formlabs Form Machines: Harvesting a Print

Learn how to properly harvest, cure, and post process a print from Formlabs Form machines.

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Introduction

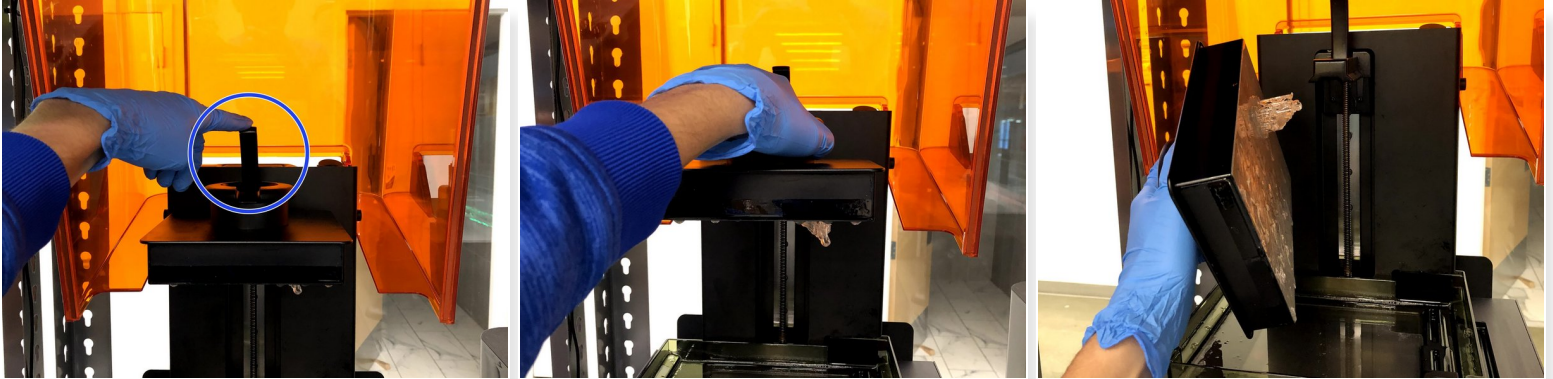
This guide will explain all the steps necessary to properly harvest, cure, and post process a print from Formlabs Form machines.



TOOLS:

- [Safety Glasses](#) (1)
 - [IPA Bottle](#) (1)
 - [Nitrile Gloves](#) (1)
 - [Side Cutter](#) (1)
 - [Ultrasonic Cutter](#) (1)
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Step 1 — Taking the Print off the Printer



⚠ Wear gloves to prevent getting resin on your skin

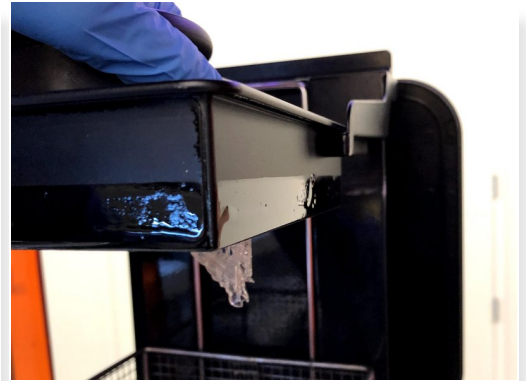
- Once the print is complete, lift up the orange hood and flip up the black clip holding down the build plate
 - Pull the build plate straight out and rotate to prevent dripping
 - Then flip the black clip down and bring down the orange hood
- ⚠ do this immediately so that the ambient light does not impact the resin sitting in the tank

Step 2 — Quick Rinse with IPA



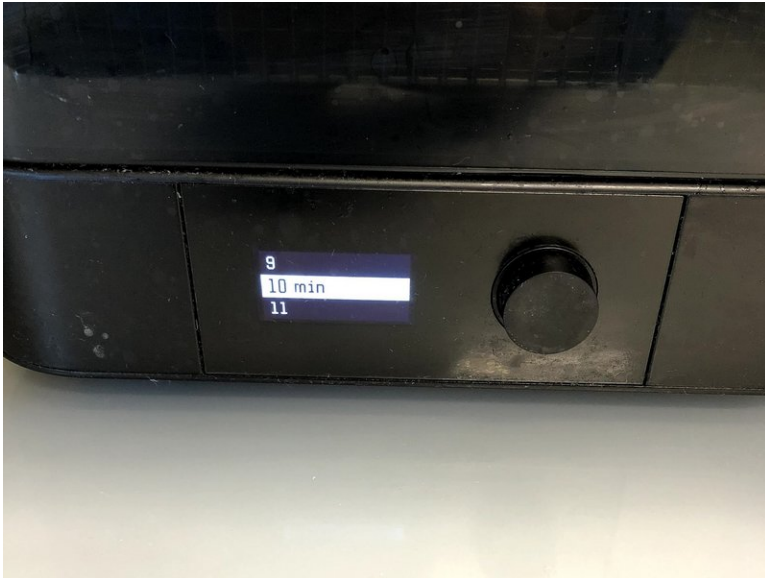
- Hold the **build plate** over a trash can
- Spray any small crevices where resin has built up with an **IPA wash bottle**

Step 3 — The Wash



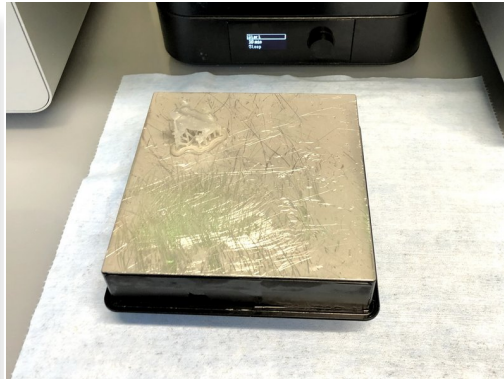
- Use the Form Wash to rinse the part of any excess resin
- Press the **black button** to wake up the wash, then scroll to "open" and push the black button again to raise the arm
- Place the build plate on the arm with the model facing down
 - ☑ Make sure the **build plate** slots into the corresponding tracks of the wash

Step 4 — The Wash Settings



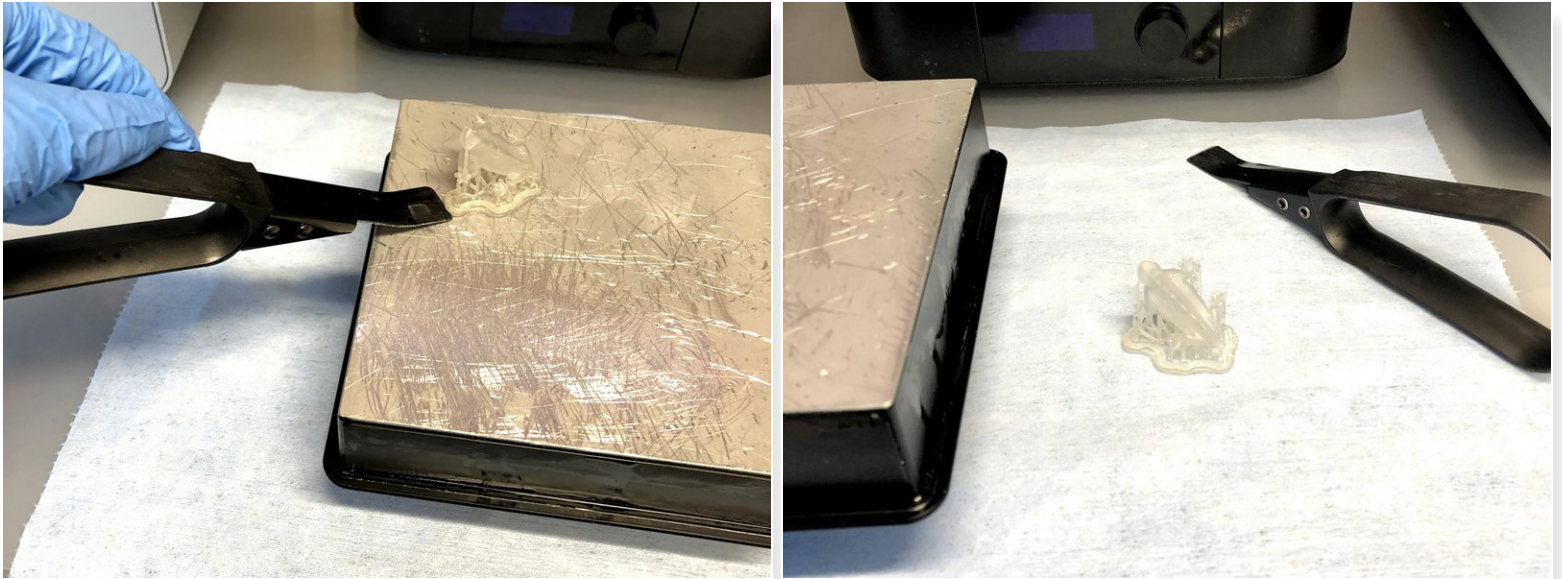
- Scroll down to the time and make sure it is set to the correct time
 - ① If you're unsure about how long to set it for you can check [here](#)
- Scroll up to start and press the button.

Step 5 — The Wash II



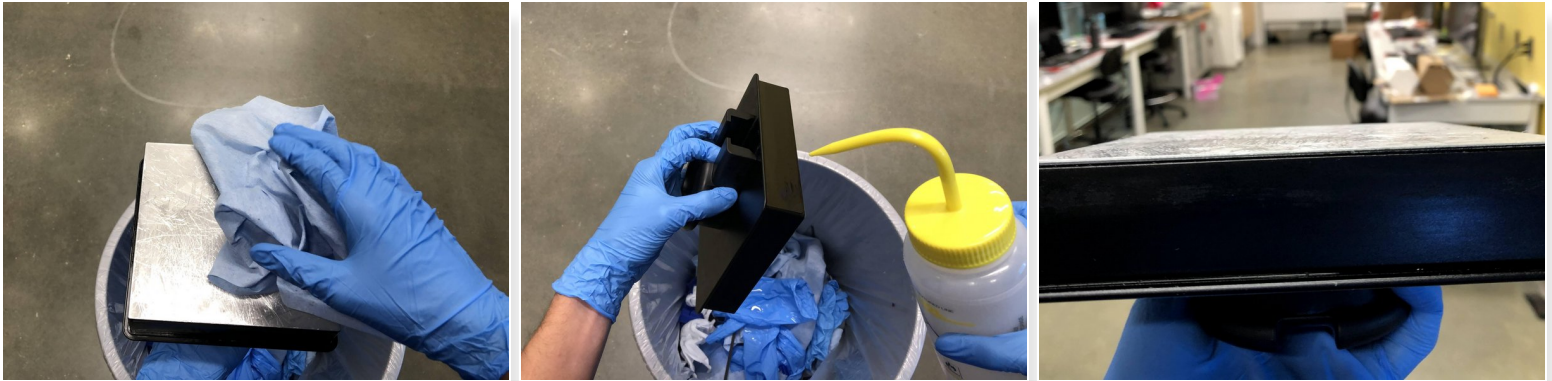
- The arm and part will rise out of the wash automatically when the time has finished
- Remove the build plate and rotate it so that the part is upright
- Set the tank to sleep

Step 6 — Removing the Part from the Build Plate



- Do another quick rinse of the part with IPA over a trashcan
- Place the upside down build plate on a towel
- Use the lever tool to loosen the raft from the build plate
 - ⚠ Be careful not to scratch the build plate! This tool is meant to be placed under the raft and then rotated so that the part pops off
- Place the removed part on a paper towel to begin drying

Step 7 — Cleaning the Build Plate



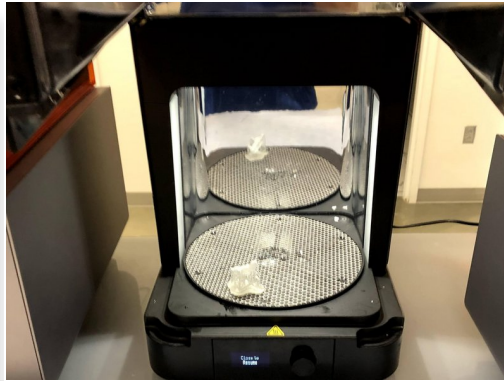
- Spray down a paper towel with IPA and thoroughly wipe off the build surface
- Using a new side of the paper towel clean the edges of the build plate
- Wipe off a final time to ensure that all resin is removed from the plate
- Replace the build plate back in the machine

Step 8 — Drying



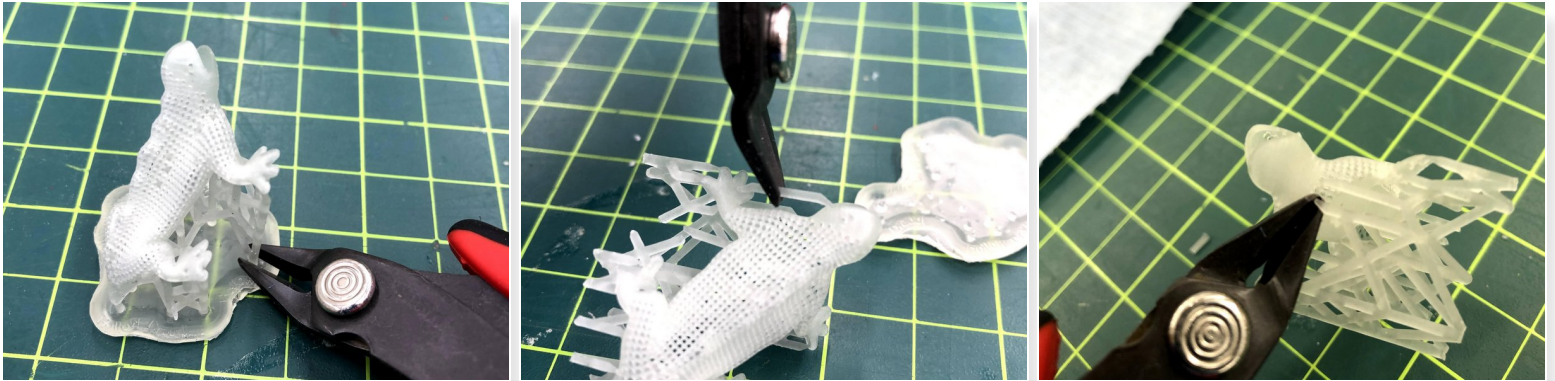
- Let the part dry completely on the paper towel in front of the fans
 - The on button is on the top of the fans.
- This step will take some time so note the time and return in 15 minutes to check the progress
- If the part still is not visibly dry, continue waiting
- ⓘ The part must be dry because any left over resin will set unevenly in the Form Cure and tarnish the surface finish

Step 9 — The Cure



- **Preheat** the Form Cure for the correct resin time and temperature
 - If you're unsure what time and/or temperature is correct, you can find out [here](#)
- Open the lid and place the completely dried parts on the circular plate
- Wait for the curing cycle to complete
- ❗ Multiple parts can have the same curing temperature but different times, so parts can go together, just set the time to the longest of the group

Step 10 — Removing Supports



- Bring the cured parts to the mechanical space to remove supports

⚠ Wear safety glasses

- Use a side cutter to remove the raft
 - Snip the base of the support structure as close to the raft as possible
- If the part has large flat surfaces where the surface finish isn't crucial, use the side cutters to clip off the support
- Clip in the middle of support bridging (typically on overhangs)
- ① If the part is fragile or has a lot of intricate parts with need to have a clean finish, the ultra sonic cutter is needed

Step 11 — Ultrasonic Cutter



- Take the machine out and plug it in
 - Flip the side switch and press the white button on the handle to turn it on
 - The light will be green when it is on
 - Cut gently through the supports
 - ① the blade works by vibrating at ultrasonic frequencies so be patient and let the blade do the work don't try to force it through the support
 - Once you've cleaned all the support off you can turn off the ultrasonic cutter and return it to its place of origin
- ⚠ Be very careful not to make contact with the blade! The knife vibrates at such high frequencies you might not be able to tell if its on by looking at it