

**Fusion3**

# **EDGE 3D Printer**

## **REMOVING FINISHED PARTS FROM THE BED**

**Revision 5/24/2022**

# REMOVING FINISHED PARTS FROM THE PRINT BED

How to correctly & safely remove finished parts from the print bed of your Fusion3 3D printer.

These steps generally apply to all materials, all bed coatings, and all bed surfaces. They should be taken as general guidance and you should follow any material-or-surface-specific instructions provided.

## FOR GLASS PRINT SURFACES

### 1. Let the bed cool to < 45 C.

For PLA, this means you can remove the part right away.

For other materials, letting the bed cool does a few things:

- a) It reduces the strength of the bond between the part and the bed;
- b) It allows the part to solidify as it cools so it's less inclined to warp or stress-relieve after it's been removed;
- c) It enhances user safety so you're not working around very hot components

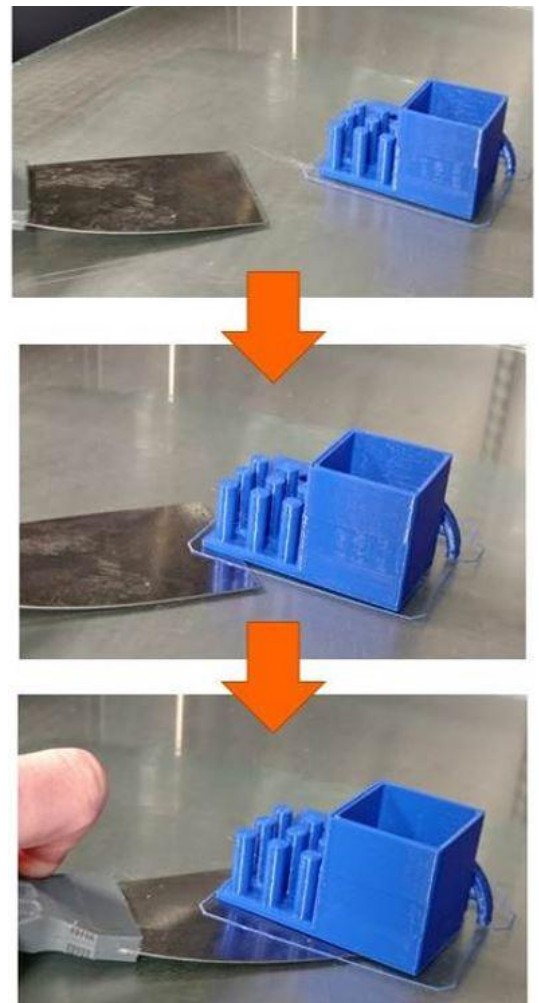
### 2. Use the part scraper to remove the part from the bed.

Slide the scraper along the bed and "tap" the side of the part firmly. Some materials will release at this step, or will self-release before you touch them (ex: ABS).

Continue to tap the side of the part until the edge of the scraper slides under the bottom of the part.

Now use the scraper to work the bottom face of the part loose from the bed little by little. Most materials will release somewhere in this process after you separate 25%-50% of the part from the glass.

If the part is still stubbornly stuck and you're using significant force (more than 5lbf) to get the scraper under the part, **stop**, and proceed to the next step.



### **3. Use thermal shock to remove the part**

1. Remove the glass from the printer. See your product's specific documentation for how to do this.
2. Place the glass with the finished part still attached into a freezer. Leave it there for 30 min.
3. After 30 min, check to see if the part has been popped loose from the bed. If not, leave it in for another 30 min.
4. If the part has not self-released, remove the glass+part from the freezer and try to work the scraper under it again. 99% of parts will pop off with slight force at this point.
5. If it's STILL stuck, try to thermally cycle the glass+part:
  - a. Heat the printer's bed up to the material's bed temperature. Wait for it to reach the target temperature.
  - b. Place the glass+part back on the bed for 10-15 min. You may need to clamp the glass in place to improve heat transfer into it.
  - c. Then remove it and transfer it to the freezer again. Leave it for 30 min.
  - d. Repeat as necessary.

## **FOR FLEXIBLE PRINT SURFACES**

1. Peel the print surface off the magnetic tool plate and remove it from the printer.
  - a. Sometimes this action alone is enough to pop the part off the sheet. If this happens, you're done!
2. Let it sit until it's <45 C so it's safe to handle.
3. Gently flex and bend the surface until the part detaches.

**Related Articles / Resources:**

**Tags:** Part removal, finished parts, end of print