



# Fortus 400mc: Post Print Maintenance

The standard cleaning and inspection procedures after finishing a print on the Fortus.

Written By: Andrew John Oliver



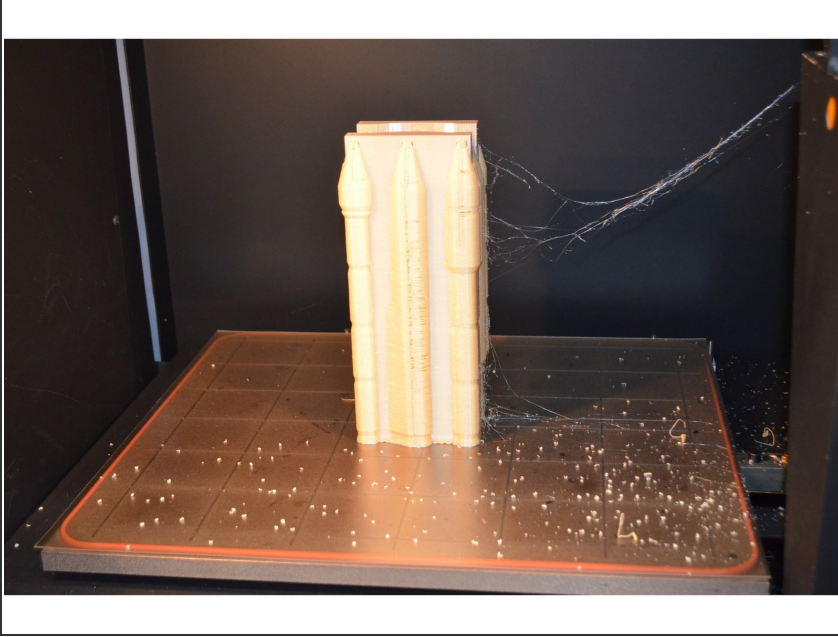
## Introduction

Regular cleaning and maintenance is critical when operating the Fortus; completing a few simple tasks can prevent larger issues and keep the machine running smoothly.

This guide includes all of the standard procedures that should be completed after each print.

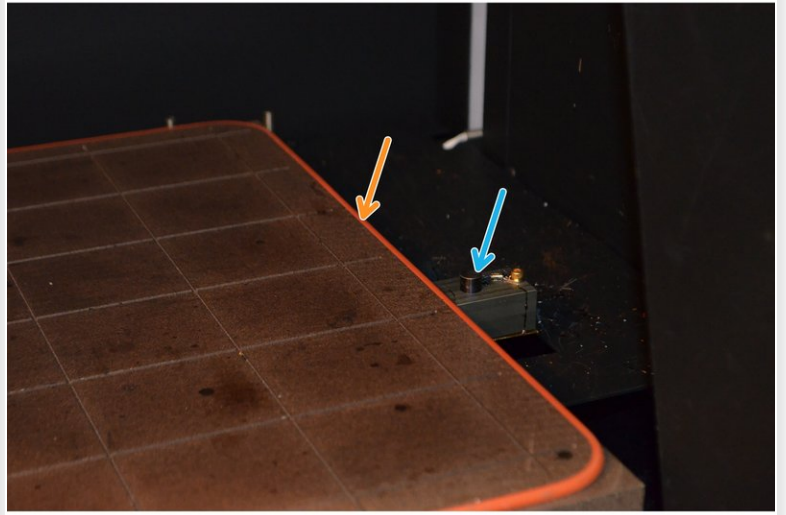
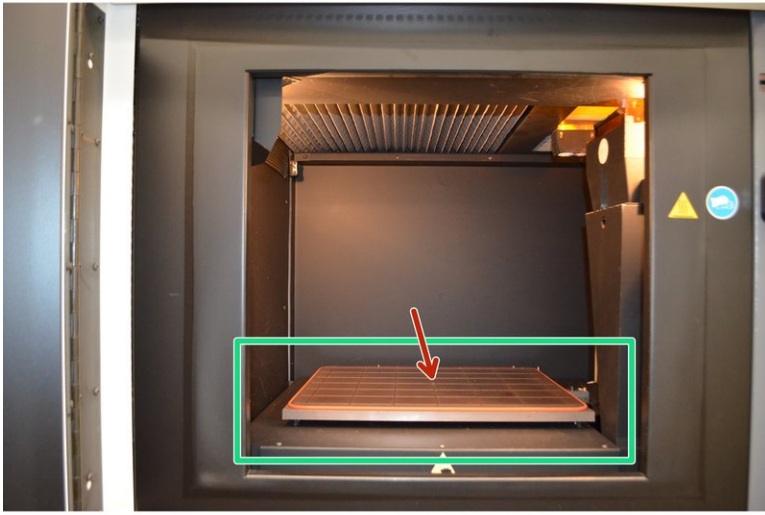
## Step 1 — Remove Print

---



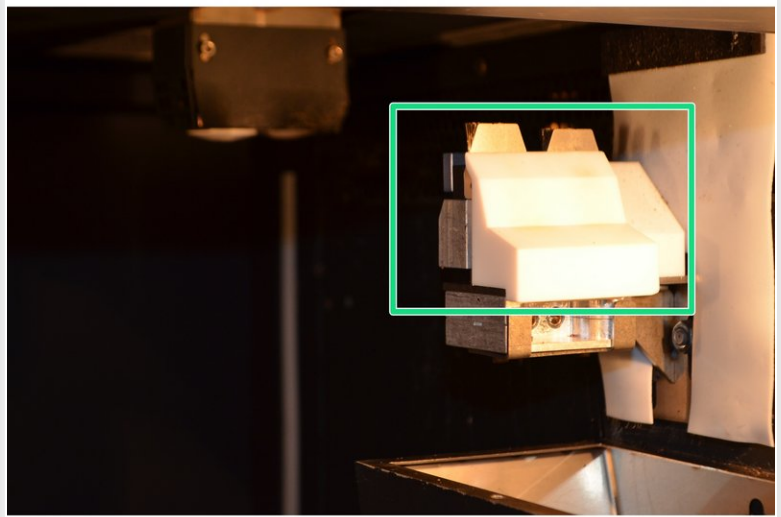
- Remove the print from the oven by lifting up on the build sheet
  - ⚠ The build sheet, print, and all oven surfaces will be hot. Gloves are required
- If the print used soluble supports, see [this guide](#). If the print used breakaway supports, see [this guide](#)

## Step 2 — Clean Platen and Z Stage



- Remove any debris from the platen using a soft brush and a vacuum
  - ⚠ Ensure that no debris gets in the vacuum port in the center of the platen
- Vacuum the rest of the Z stage around and behind the platen
- Inspect the platen o-ring for any cracks or wear and replace if necessary
- Inspect the tip sensor plunger for any material residue and clean with a razor blade if necessary
  - ⓘ No amount of material is acceptable on the tip sensor plunger

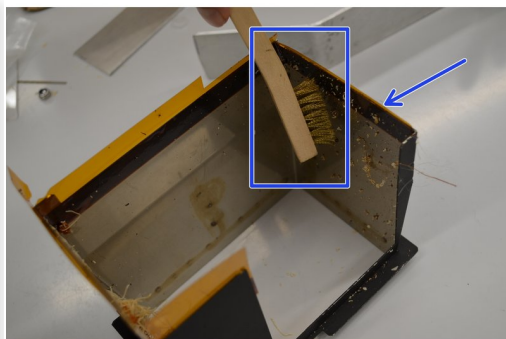
### Step 3 — Clean Tip Cleaning Assembly



- Remove debris chute hood by lifting straight up
- Remove purge block and flicker/brush assemblies by lifting straight up and off their locating pins
  - ⓘ Keep track of which assembly was on which side and replace them accordingly
- Clean all parts and the surrounding areas using a vacuum, soft brush, and pick
- Inspect the hood and tip cleaning assembly as described in [this guide](#)



## Step 4 — Clean Debris Chute and Empty Waste



**i** This step is easiest if done before replacing the tip cleaning assembly and debris chute hood

- Remove the purge waste bucket by lifting the bucket and rotating it counter-clockwise. The contents can be put in the general lab waste
- Use the long wire brush to clean the inside of the debris chute, reaching up from the bottom or down from the top as necessary
- Vacuum or sweep any debris that was displaced, then replace the waste bucket, tip cleaning assembly, and debris chute hood
- If the chute is not properly cleaned, material will build up and clog the chute as pictured.

**⚠** Material that has clogged the chute is extremely difficult to dislodge. Do not forget this step.

## Step 5 — Clean under Z Stage



- With the oven door closed, navigate to *Operator Control > Move Head/Stage > Move Relative* in the control panel
- Hold down the 3 key until the Z stage has reached the top of its travel
  - ① To speed this up, make sure that the *Set Distance* field is 1.000 inch and not 0.100 inch
- Open the oven door and vacuum beneath the Z stage
  - ① If necessary, you can temporarily remove the black foil lining from the bottom of the oven for a more thorough cleaning

## Step 6 — Lower Z Stage

---



- With the oven door closed, navigate to *Operator Control > Move Head/Stage*
  - Select *Move Z Stage to Bottom*
-