



Troubleshooting guide

How to remove broken PVA from the Ultimaker S5 Material Station

Information

If filament breaks and/or gets stuck within the Ultimaker S5 or Material Station, this will prevent processes of the Ultimaker S5 Pro Bundle from functioning correctly. In these cases, an error code will be shown. The error code will indicate where the filament blockage was detected. Follow the link provided to get more troubleshooting information for the specific case.

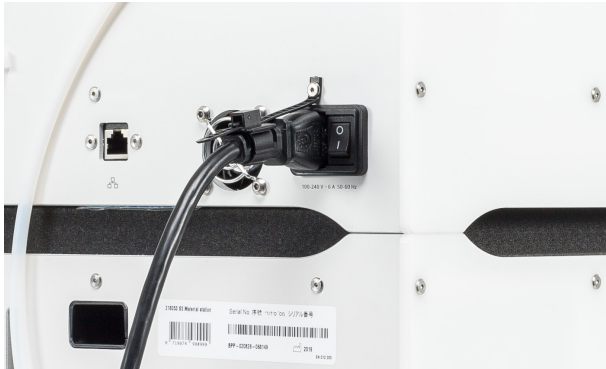
This document contains step-by-step instructions on how to remove the broken material from the system. There is no need to disassemble the machine, apart from detaching a Bowden tube.

The following items are required:

- Dummy filament (non-flexible and at least 2 meters)
- Wire cutters / cutting pliers
- Flat-nosed pliers

Note: These troubleshooting steps apply to broken PVA, but the same steps can be taken if another type of material is stuck in the Material Station.

Instructions



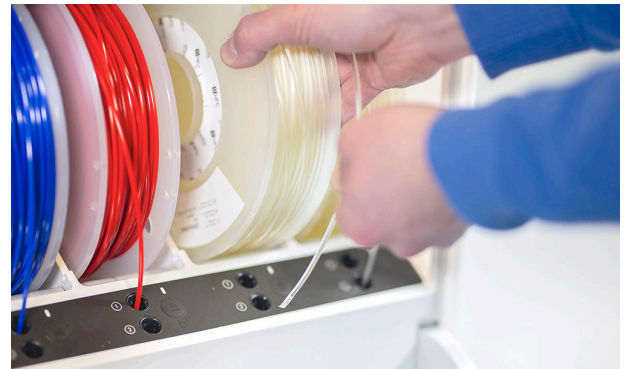
1. Note the error message and the affected bay and extruder before switching off the Ultimaker S5



2. Remove the power cable from the Material Station



3. Open the Material Station. Check the system for broken pieces of filament



4. Remove the spool of PVA from the Material Station

Note: The end of the PVA filament could still be stuck in the prefeeder. Gently and carefully pull the filament out.



5. Remove the clamp clip and detach the Bowden tube from the bottom of the Ultimaker S5 feeder at the back of the printer

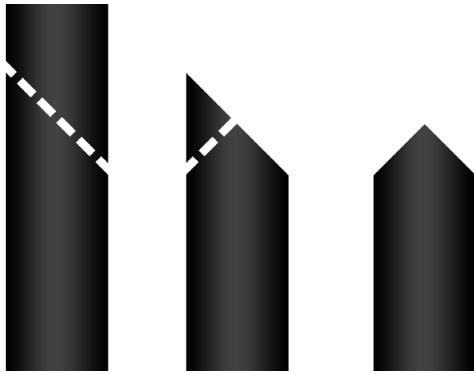
Note: Do not detach the Bowden tubes from the decoupler. This risks damaging the tubes and it is difficult to reinsert them properly.



6. Take another spool of filament and use the wire cutters to cut a fine tip on the end of the filament

Note: Choose a non-flexible filament such as PLA or Tough PLA.

Instructions

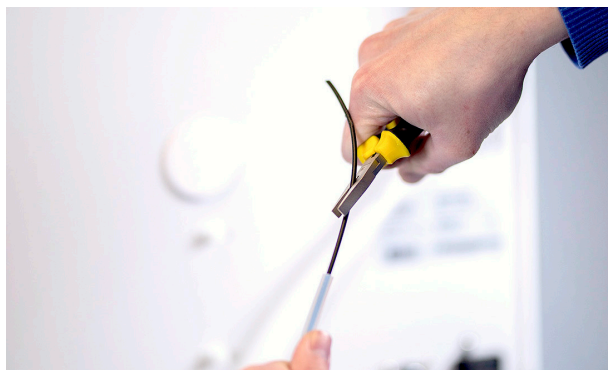


7. Make a double cut for a conical tip shape

Note: Avoid sharp edges; this may damage the components inside the Material Station, such as the Bowden tubes.

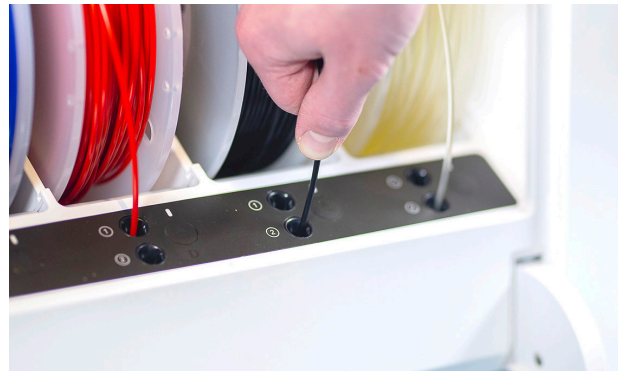


9. Feed the filament all the way through the system until all broken pieces are removed and the new filament comes out of the Bowden tube at the back



11. Grab the end of the filament sticking out of the Bowden tube at the back and pull the material completely through the system

Note: Use pliers to grab the Material, this will give a better and firmer grip. It may take some force to pull the material through.



8. Insert the filament into the Material Station and apply force to manually push the material through

Note: Sometimes, more force is needed than expected. If it is not possible to push the material through, try pushing from an adjacent bay. For extruder 1, try the bay to the right. For extruder 2, try the bay to the left.



10. Cut the currently loaded filament at the entry port of the Material Station

Note: Again, cut the filament at an angle and avoid sharp edges.



12. Reattach the Bowden tube to the Ultimaker S5 feeder and secure with a clamp clip

Insert the power cable into the Material Station and switch on the Ultimaker S5 to continue operation