zortrax

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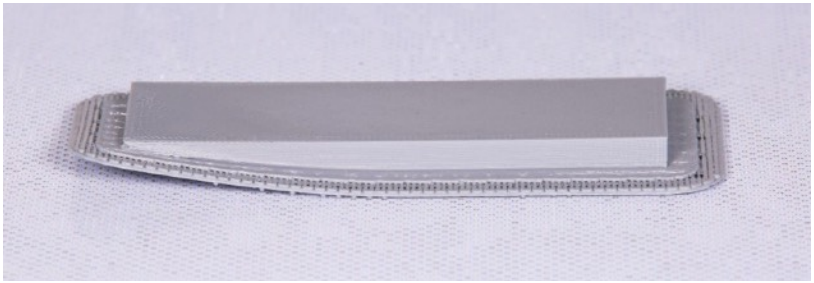
Print not sticking to the bed (WARPING)



Warping generally comes down to one of two things:

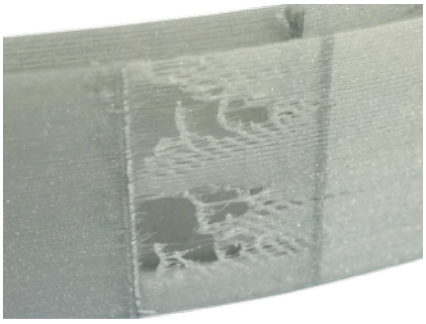
1. Bed is not clean
2. Platform needs calibration

For further information and tips on how to mitigate this issue, please see the guide on ”**How to print big on the M200**” which talks about warping in more detail.

Filament not extruding properly (CLOG)

Arguably, the most annoying thing in 3D printing is what is called a **clog**. This happens when something is blocking the filament from extruding. This can be anything really, dust, debris or even filament that has come stuck in one way or another. The picture below to the left illustrates the cross-section of the nozzle with a **partial clog** and a **full clog**. The partial one would still work but would likely produce poor results and uneven surfaces (like the print to the right illustrates).

The full clog would **not print at all** and the printer would just move around without extruding any filament. Sometimes, a ”**clicking**” noise may be heard from the extruder as it tries to push filament through the clogged nozzle.



Thankfully, this is usually pretty easy to fix.

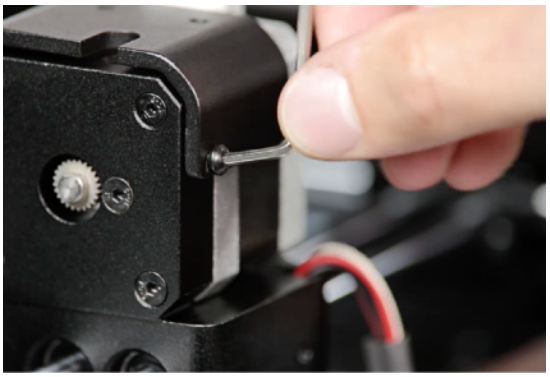
1. **Unload** the filament from the printer. Use the screen on the printer and navigate to ”material” -> ”unload material”. The printer will now heat up slowly until the filament can be **removed**.

2. While the printhead is still hot, grab the **0.35 mm needle** from the drawer underneath the printer and push it through the nozzle. **Careful, the nozzle is very hot!** Sometimes it can help to use a pair of small pliers to hold the needle. Once the 0.35 mm needle moves freely, change to the **0.4 mm needle** and repeat the process.
3. It should now be cleaned and ready to print again.

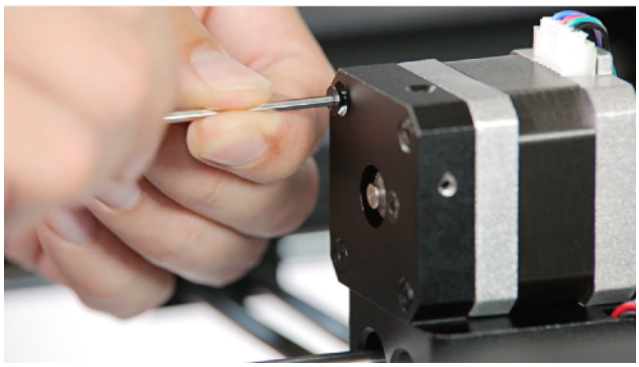
However, this may not be enough. In these situations you need to do a bit more work:

(make sure the nozzle is hot, if not use the preheat function)

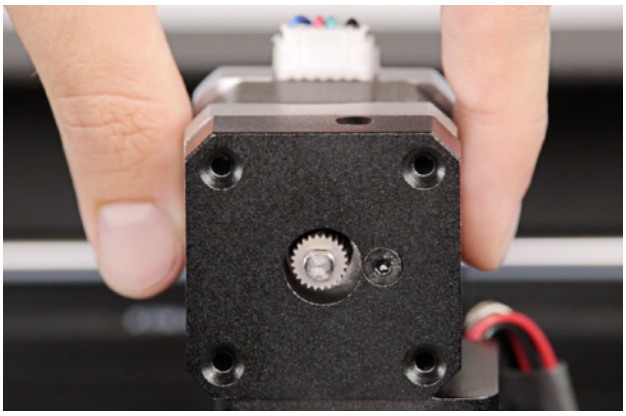
1. **Unscrew** the **two** side screws (2mm hex) that secure the 3D printed cover (do not remove the cover).

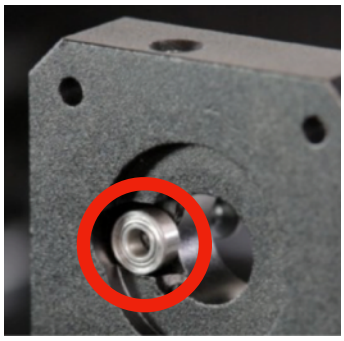


2. **Unscrew** the **four** screws (2mm hex) that secure the motor to the extruder assembly

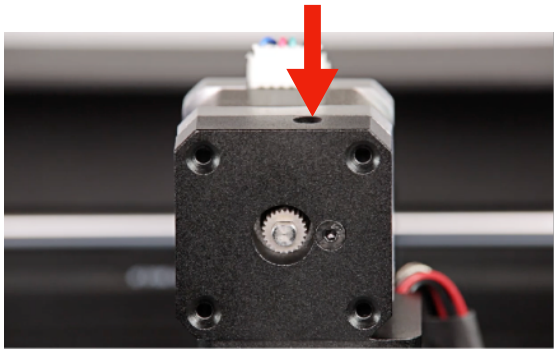


3. You can now **slide** the whole **extruder motor** back a few centimeters. This should move the extruder gear from the filament path. There's no need to unplug anything! Also, make sure that the **filament bearing doesn't fall out**.





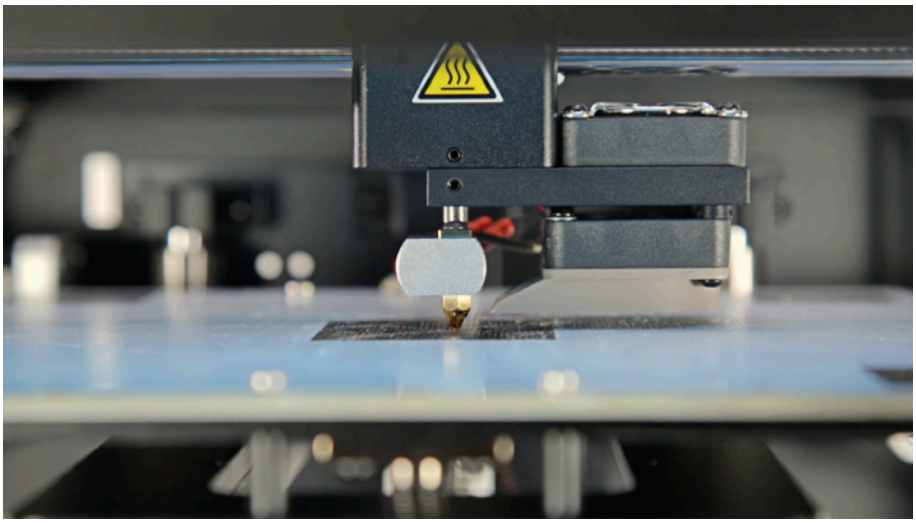
4. Take the **1.75 mm steel rod** and push it through the **top** of the extruder. Push until you reach the **bottom**, you should see the remaining filament escaping from the nozzle. Continue pushing and pulling until there's no more filament coming out fromt the nozzle.



5. At this stage it might help by **alternating** between using the 0.35 or 0.4 mm **needles** through the nozzle and pushing with the **steel rod** to get all the filament out.

6. **Reassemble** the extruder (make sure to not loose the extruder bearing), and try printing again. The clog should have been cleared.

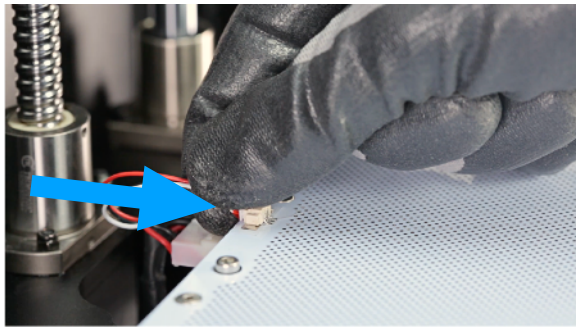
Perforated bed hits nozzle (Crashing)



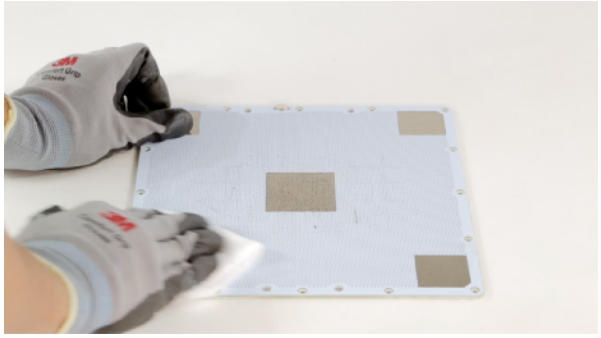
Every time a print starts it will automatically measure the height of the perforated print platform. This is done by sending an electrical signal through the platform and metal nozzle. If this circuit is never closed the printer doesn't know that have hit the platform and it **jams** into the bed until it drills a hole right through it.
If this happens, it goes without saying that you should **immediately turn off the printer!**

After that, you should run through this checklist:

1. Check that the **small connector** at the back of the platform is **seated** firmly



2. **Clean** the contact areas with acetone. Take a piece of paper and lightly damp it with acetone and clean all five metal contact areas.



3. Check for platform **damage**. If large pieces of metal is missing, the platform may be permanently broken. Talk to the **workshop responsible** about replacing it