

Thank you for buying from 3DFLO. A 3D printer is a workshop tool, not an appliance — it will run happily for years with a few minutes of care. **Almost every fault we see in the shop comes down to one of three things: a dirty print bed, damp filament, or a machine that has never been cleaned.** Get those right and you have solved most problems before they happen.

1 Where to put it

- **Somewhere solid and level.** A sturdy table or bench — not a wobbly desk and not on carpet. Vibration shows up in your prints.
- **Out of draughts.** Away from open windows, doors and fans. A sudden cold draught makes prints lift off the bed and split.
- **Out of direct sunlight** and away from radiators — heat softens both the printer's plastic parts and your filament.
- **Give it room.** Leave a hand's width all round so the fans breathe and nothing snags the moving parts or the filament.

In a room used for long hours, a printer in an enclosure or by a window vent is more pleasant to live with — all melted plastic gives off some smell.

2 The print bed — look after this one thing

- **Never touch the printing surface with your fingers.** The natural grease on your skin is the single most common cause of prints not sticking. Handle the sheet by its edges.
- **Wash it, don't just wipe it.** Every week or two, take the sheet off and wash it in warm water with a little washing-up liquid, then dry it with a clean cloth. This lifts grease that alcohol leaves behind.
- **Between prints,** a wipe with isopropyl alcohol on a lint-free cloth is enough.
- **Never use metal tools on it.** No knives, no screwdrivers, no chisels. Let the bed cool and the print will usually pop off on its own, or flex the sheet gently.
- **Keep it flat.** Don't fold or crease a flexible sheet, and check nothing is stuck under it before you print.

3 Filament — keep it dry

- **Plastic absorbs moisture from the air.** Damp filament prints rough and stringy, pops and hisses as it prints, and snaps in the machine. It is the most misdiagnosed fault in 3D printing.
- **Store spools sealed.** Put unused spools back in their bag with the sachet of desiccant, or in a sealed box. Don't leave a spool sitting on the printer for months.
- **Drying works.** If a spool has gone damp, a filament dryer (or a few hours in a warm oven-style dryer at the maker's temperature) brings it back.
- **Never let the end go loose.** Clip the end into the spool's hole every time. A loose end tucks under the coils and jams the print hours later.
- **Feed it cleanly.** The filament should run to the printer without rubbing on anything or dragging the spool.

4 Getting a good first layer

- **The first layer decides the print.** If it goes down clean and even, the rest usually follows.
- **Re-level after you move the machine** — even a short move across the bench. Most modern printers do this for you from the menu.
- **Watch the first minute** of every print. Ninety percent of failures show themselves right there, and you have saved yourself six hours and a spool of plastic.
- **Clean bed, dry filament, correct temperature** for the material — in that order.

5 Keeping it running sweetly

- **Keep it clean.** Dust and stray bits of plastic are the enemy. Brush and vacuum around the rails, fans and under the bed. Don't blast debris deeper in with compressed air.
- **The nozzle is a consumable.** It wears out — sooner if you print anything with carbon fibre, glow or glitter in it. A worn nozzle gives untidy walls and poor detail. Replacing one is cheap and takes minutes.
- **Wipe the nozzle while it is hot** with a brass brush — never a steel one, and never when the machine is cold.
- **Smooth rods and rails** want a wipe and a light film of the grease supplied with the machine. Belts and their teeth stay dry — never oil a belt.
- **Check screws and belts occasionally.** Things loosen with vibration; a slack belt shows as ghosting or shifted layers.

6 A simple maintenance routine

How often	What to do
Every print	Wipe the bed with isopropyl alcohol · check the filament is running free · watch the first layer go down
Weekly	Brush out dust and plastic debris · check the nozzle is clean · check nothing is rubbing or snagging
Monthly	Wash the print sheet in warm soapy water · check belt tension · check the screws holding the bed and gantry · check fans are spinning and clear
Every 3 months	Wipe and re-grease the rods and lead screws · inspect the nozzle for wear · check for wear or damage on the wiring going to the hot end
Yearly, or as needed	New nozzle · replace the print sheet if it is scratched or no longer grips · a full service and check-over in our workshop (£30 diagnostic & assessment, refunded against the cost of any repair)

Printing every day, or with abrasive filaments? Move each of these one step sooner.

7 Quick fixes for the usual suspects

If you see this	Try this first
Print won't stick to the bed	Wash the bed properly (grease from fingers), then re-level. Check for draughts.
Fine hairs and whiskers over the print	Damp filament nine times out of ten — dry the spool. Then drop the nozzle temperature slightly.
Corners curling or lifting	Draught or too cold a room. Close the window, raise the bed temperature a little.
Nothing coming out mid-print	Blocked nozzle or filament ground down by the feeder. Change the nozzle, check the spool isn't snagged.
Layers suddenly shifted sideways	Something caught the print head, or a belt is slack. Check the print isn't in the way of the head's travel.
Clicking or ticking noise from the feeder	Stop the print. Blockage, damp filament, or a spool that won't turn freely.

Safety — the short version

- The nozzle runs at 200–300°C and the bed can reach 100°C. **Both burn.** Let them cool before you reach in.
- Long prints are part of the hobby — just make sure there is a working smoke alarm in the room, and pick a spot that isn't right next to where anyone sleeps.
- Keep it out of reach of small children and pets — moving parts and hot parts.
- Use the power supply it came with, plugged straight into a wall socket where possible. If a cable or connector looks scorched, stop and call us.
- Ventilate the room when printing for long periods.

Stuck? We are here.

The Print Doctor — our free fault finder walks you through the problem step by step, on your phone, for any make of printer. Scan the code or go to 3dflo.com/print-doctor

[Repairs & servicing, all makes](#)
[Filament & spares](#)
[Custom printing](#)

Bring it to the unit or give us a ring — advice is free, and we would far rather hear from you early than see a machine that has been fought with for a month.



PRINT DOCTOR