

Digital Filament Dry Boxes and Dehydrators

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Consumables & Spares



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((Echium_auberianum_on_Tenerife_Island,_Canary_Islands)_-_DPLA_-_fe8b3e59dbb941663f7c6a4799dd83f2.jpg)

Filament dry boxes store 3D printing spools in a sealed, heated, low-humidity chamber that keeps hygroscopic filament like PETG, TPU and nylon dry, while dehydrators actively dry damp spools before printing. Dry filament prints clean; wet filament strings and snaps.

Key Features

- Sealed boxes with desiccant and hygrometers
- Heated drying to 50-70 degrees C
- Spool-friendly interiors
- Multiple spool formats
- Timers and temperature controls

Typical Uses in the Workshop

- Store open spools dry between prints
- Dry wet filament before use
- Keep nylon and TPU printable
- Improve print quality and consistency

Safe Operation

1. Place dry spools in the sealed box
2. Set the dehydrator temperature for the material
3. Dry overnight or per the maker's guide
4. Check the hygrometer stays low
5. Feed the filament from the box during prints

SAFETY NOTES

- Do not exceed the filament drying temperature
- Keep the box vented when heated
- Check the power lead and timer
- Do not dry combustible materials
- Keep boxes away from children

Maintenance & Consumables

- Regenerate desiccant as needed
- Clean the box interior
- Check the hygrometer accuracy
- Service the fan and heater
- Replace seals that leak

Specification & Buying Notes

A heated dry box with a hygrometer covers storage and drying in one. Quality units hold a stable temperature; cheap heaters overshoot and cook filament.