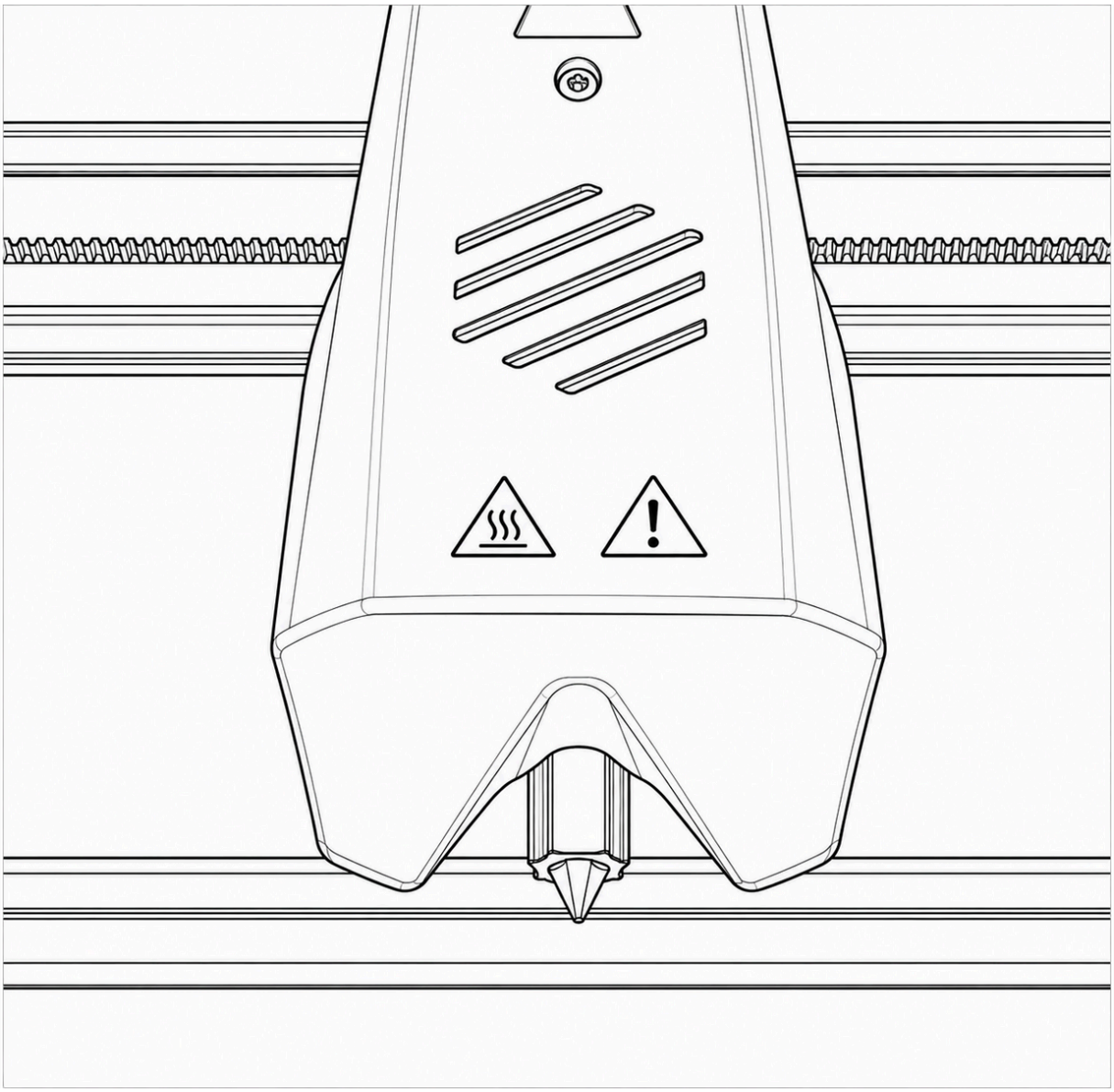
Fixing a Jammed Printhead

Troubleshooting procedure for clearing filament clogs, jammed drive gears, and printhead obstructions on Orion.

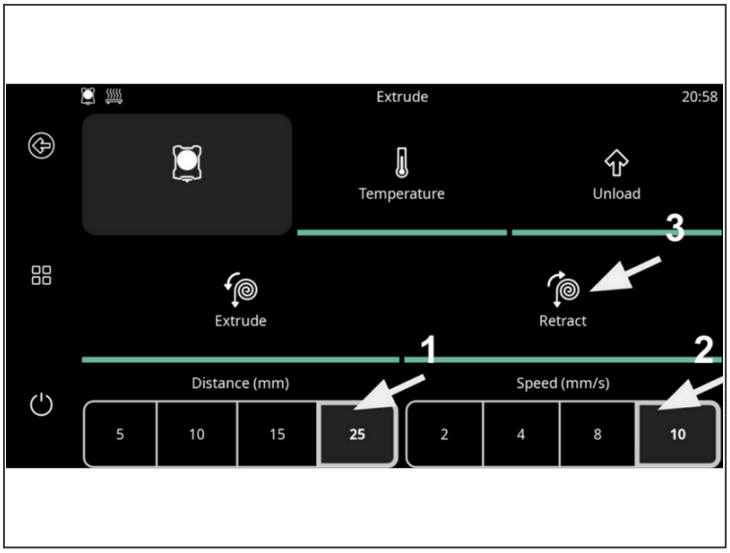
Written By: Mosaic Support



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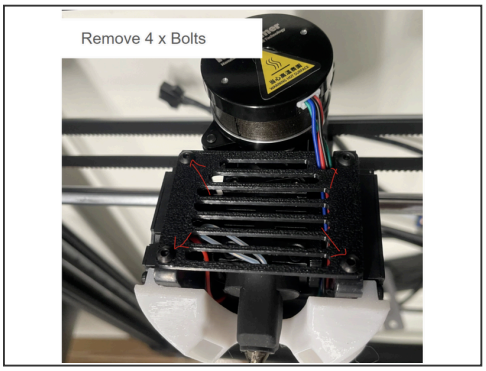
Step 1 — Attempt Standard Heat and Retract Unload



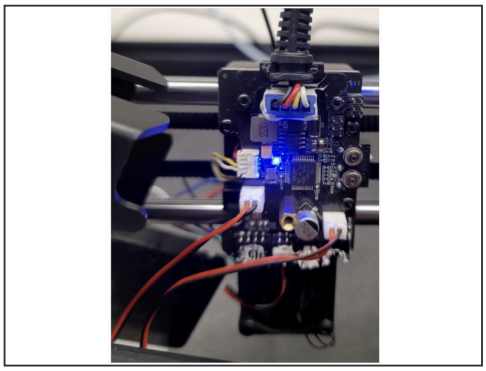


- Follow the regular Unloading Filament instructions to try to remove filament from the Printhead.
  - On the touchscreen, preheat the nozzle based on your loaded material (240°C for Aero, 280°C for Align).
- Go to the Extrude screen, set Distance to 25 mm and Speed to 10 mm/s.
- Tap 'Retract' while applying gentle upward pulling pressure on the filament strand.
- If the jam pulls out completely, snip the damaged end at 45°, reload, and purge fresh material.

Step 2 — Access Extruder Drive Gears for Stubborn Jams



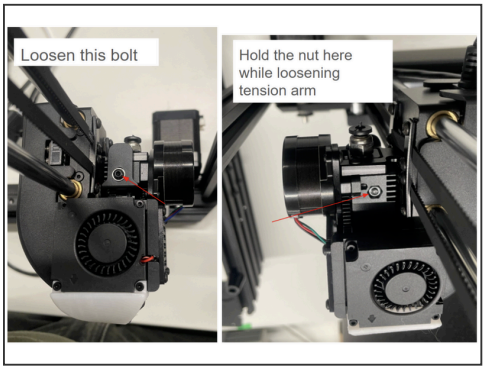


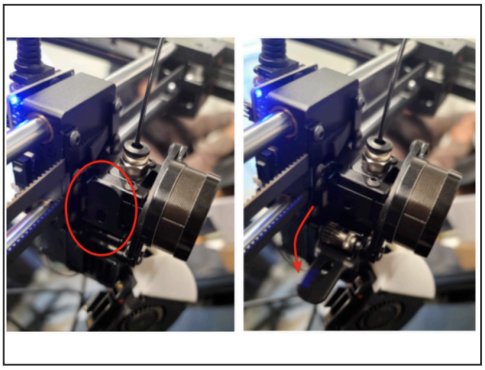
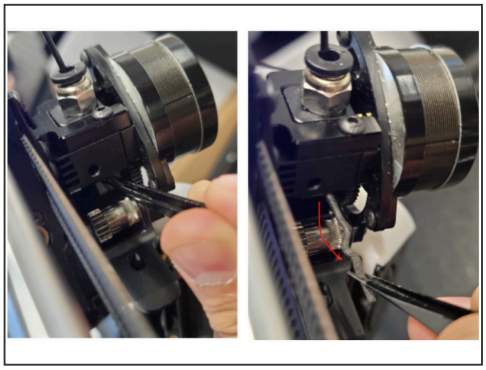


- If filament cannot be retracted, turn off nozzle heating and allow the printhead to cool down.
- Remove the 4 bolts holding the top ventilation cover on the printhead.
- Remove the center screw on the front shroud cover and carefully detach the cover.

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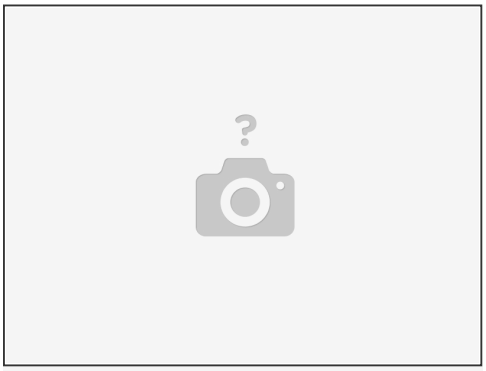
Step 3 — Loosen Idler Arm and Remove Filament



- Loosen the tension bolt on the idler arm (holding the backing nut in place).
- Open the idler arm to reveal the drive gear mechanism
- Clear any stuck filament fragments from the gear teeth using tweezers.

Step 4 — Reassemble and Test Extrusion Flow



- Re-tighten the idler arm bolt and reattach the front shroud and top cover.
- Preheat to operating temperature (240°C for Aero, 290°C for Align) and extrude 15 mm of filament.
  - Clean the nozzle tip with a wire brush and verify smooth, vertical plastic flow.
- If jams consistently recur, contact Mosaic Support at support@mosaicmfg.com for assistance.

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