

H1 HT Filament Dryer

Introduction

01 Introducing the H1 HT

Product Specification

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Size & Weight

Product Dimensions: 280 × 256 × 126 mm

Net Weight: 1.55 kg

Package Weight: 2.26 kg

Drying Performance

Preset Filament Profiles (11 options): PLA, PETG, TPU, ABS, ASA, PET, PP, PC, PA, PAHT-CF, PVA

Custom Temperature Range: 45–85°C (113–185°F)

Custom Drying Time: 0.5–12 hours

Filament Compatibility

Supported Filament Diameter: 1.75 mm

Compatible Spool Width: 50–68 mm

Compatible Spool Diameter: 197–202 mm

Printer Compatibility: Compatible with printers of all brands

User Experience

Display: 3.5-inch Full-Color Touchscreen

Operating Noise Level: ≤38 dB (27 dB ambient noise tested)

Safety & Operating Conditions

Inner Shell Flame Retardant Rating: UL 94 V-0

Operating Temperature: 5–40°C (41–104°F)

Electrical Requirements

Input Voltage AC: 100–240V, 50/60 Hz

Rated Power: 150W @ 220V / 130W @ 110V

Power Consumption: 0.386 kWh (25°C ambient, 220V input, 85°C drying for 8 hours)

Advanced Features

Rotating Drying: Yes

Lid Open Detection: Yes

Active Moisture Exhaust: Yes

Airtight Storage: Yes

Product Name – H1 HT

The ELEGOO logo is located in the top right corner of the slide. It consists of the word "ELEGOO" in a white, sans-serif font, positioned over a semi-circular background that transitions from purple to blue.

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H stands for Humidity, highlighting the product's focus on filament moisture control.

1 represents the first generation of the H-series product line.

HT stands for High Temperature, emphasizing its elevated drying capability for engineering-grade and moisture-sensitive filaments.

Product Design Overview – Front

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3.5-Inch Full-Color Touchscreen

A high-resolution touchscreen delivers an intuitive user experience with clear controls and easy navigation.



Semi-Transparent Flip-Top Lid

The flip-open lid design allows quick access for loading, unloading, and replacing filament spools with minimal effort.

Product Design Overview – Rear

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Rear Interface Layout

- A / B – Dual Filament Outlets
Upper and lower filament outlets provide flexible filament routing options for different printing setups.
- C – Automatic Air Vent
Automatically releases hot, moisture-laden air during drying for more effective moisture removal.
- Wide-Range Power Input
Supports 100–240V AC power for convenient use worldwide.
- Rated Power
150W@220V; 130W@110V



Internal Structure

- The filament chamber supports standard 1 kg filament spools (50–68 mm wide, up to 200 mm in diameter). The spool rests on support rollers for smooth rotation during drying.
- A – Air Vent Assembly
Works together with the automatic air vent system to help remove moisture from the chamber.
- B – Rear Filament Outlet
Clearly marked for easy identification and proper filament routing.
- C – Desiccant Compartment
Holds desiccant packs to help keep the chamber dry after use and reduce moisture reabsorption.
- Air Intake & Exhaust Channels
Designed to support efficient hot air circulation throughout the chamber.

Key Advantages

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Greater Printer Compatibility

Works independently and is compatible with a wide range of 3D printer brands and feeding systems.



More Intuitive User Experience

A full-color touchscreen makes setup and operation simpler and more convenient.



More Uniform Drying Performance

Rotating Drying helps distribute heat more evenly across the spool for improved drying consistency.



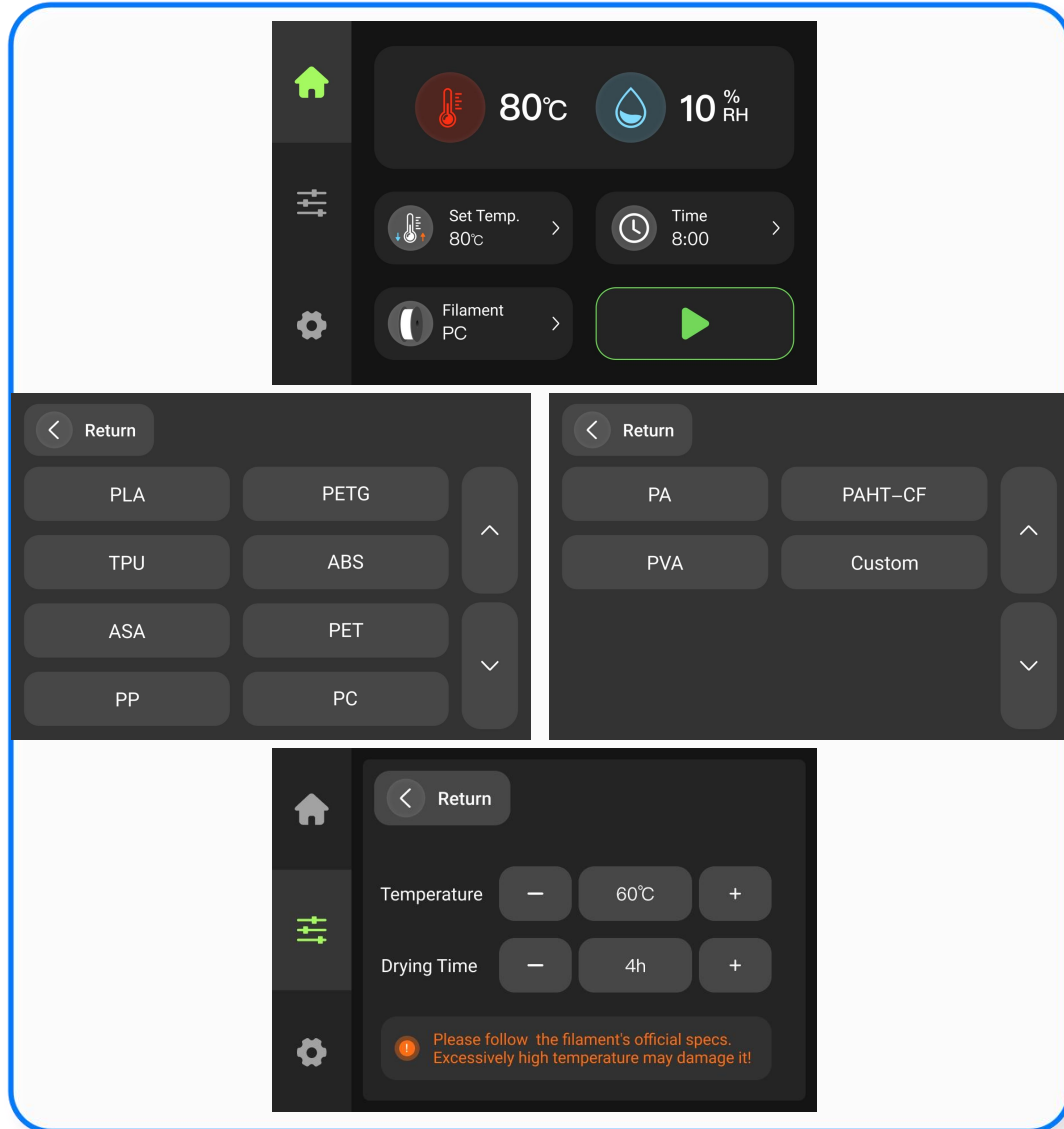
Enhanced Operational Safety

Lid Open Detection automatically pauses heating when the lid is opened, providing an additional layer of protection.

02 Drying Features

Core Drying Functions

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Intuitive Temperature & Humidity Status Display



Green ($\leq 47^{\circ}\text{C}$) Yellow ($48^{\circ}\text{C}\sim 62^{\circ}\text{C}$) Red ($\geq 63^{\circ}\text{C}$)

Low (0~30%) Medium (31%~50%) High (>50%)



11 Preset Filament Profiles

Optimized drying settings for popular filament types, including PLA, PETG, TPU, ABS, ASA, and more—making setup fast and effortless.



Flexible Custom Settings

Adjust drying temperatures from 45°C to 85°C and set drying times from 0.5 to 8 hours for different filament materials and drying needs.

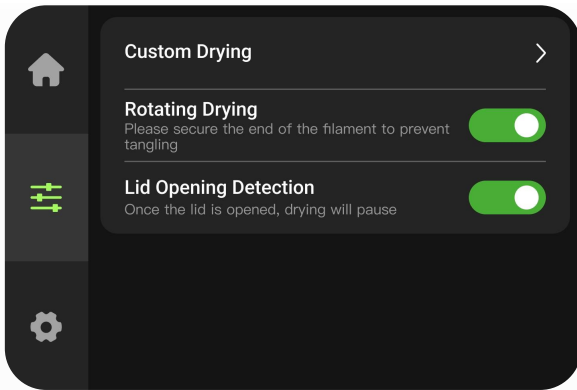


Built-In Safety Guidance

Helpful on-screen reminders and clear user guidance help prevent incorrect temperature settings and protect your filament during drying.

Key Features

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Rotating Drying

The spool automatically rotates at intervals during drying, helping heat reach the entire spool more evenly for improved drying results.



Lid Open Detection

Heating automatically pauses when the lid is opened, providing an extra layer of protection during operation.



Automatic Air Vent

The vent opens automatically during drying to release moisture and closes when drying is complete to help maintain a drier internal environment.



Flame-Retardant Inner Housing

Flame-retardant materials are used around key heating components to enhance operational safety.



Multiple Safety Protections

On-screen alerts, audible notifications, and automatic protective responses help keep users informed and provide added peace of mind during operation.

Workflow

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01 Set Parameters

Select the drying temperature and duration.



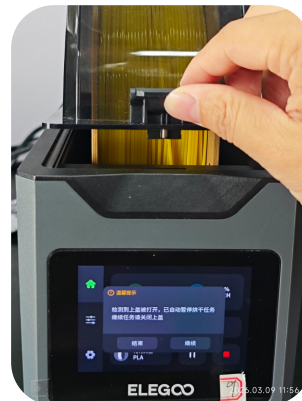
02 Secure the Filament End

Secure the filament end according to the on-screen instructions.



03 Close the Lid

To ensure optimal drying performance.



04 Start Drying

Start the drying cycle.



05 Drying Complete

Receive both on-screen and audible notifications when drying is finished.



03 Filament & Printer Compatibility

Filament Routing Options

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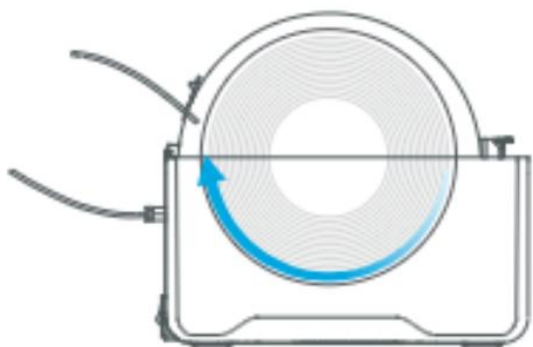
Dual Filament Outlet Design

↑ Upper Outlet

Recommended for flexible filaments such as TPU and rigid fiber-reinforced materials, providing more stable filament feeding.

↓ Lower Outlet

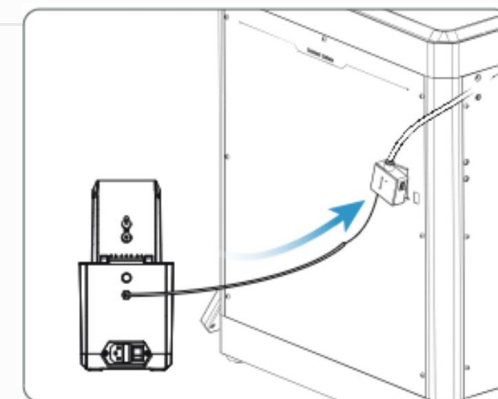
Optimized for commonly used materials such as PLA and PETG.



Flexible Setup Options

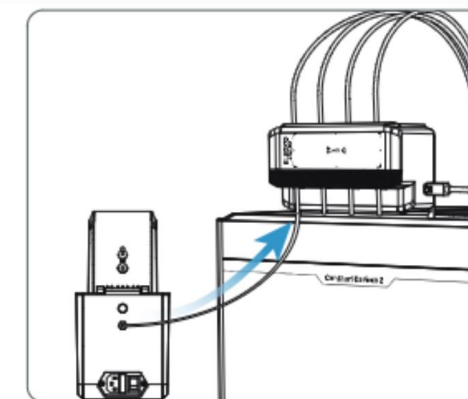
Connect Through a Filament Runout Sensor

Feed filament directly into the filament runout sensor of the printer, similar to the Centauri Carbon series setup.



Connect Directly to the Print Head

Route filament directly to the extruder, making the dryer compatible with older printer models.



Connect to CANVAS

Use a PTFE tube to connect the dryer to the input port of a multi-material feeding system.

04 FAQ

 FAQ**Q: Can I dry filament while printing?**

A: While the H1 HT can be used during printing, we do not officially recommend this workflow, as printing performance may vary depending on the printer and material. Users who wish to print while drying may disable the spool rotation feature and test the setup based on their specific printing conditions.

Q: Which printers are compatible?

A: The H1 HT is compatible with a wide range of 3D printers and is not limited by printer brand or filament feeding method, making it suitable for most mainstream FDM printers.

Q: Does it support online firmware updates?

A: No. Firmware updates over a network connection are not supported.

Q: How noisy is the fan during operation?

A: Under laboratory testing conditions, operating noise measures approximately 36 dB.

Q: Can it be used in winter or cold environments?

A: The recommended operating temperature range is 5°C–40°C, which is similar to most filament dryers on the market. In typical indoor environments, the H1 HT operates normally within this range.

Q: Does it support drying history or memory functions?

A: No. The H1 HT does not store previous drying records or maintain drying history data.

THANKS
