

Comgrow Ender 3 S1 Pro

Creality Ender 3 S1 Pro 3D Printer and Comgrow Hyper Filament User Manual

Model: Ender 3 S1 Pro

Brand: Comgrow

1. INTRODUCTION

This manual provides detailed instructions for the setup, operation, and maintenance of your Creality Ender 3 S1 Pro 3D Printer, bundled with Comgrow Hyper Filament PLA Purple. The Ender 3 S1 Pro is designed for efficient and high-quality 3D printing, featuring advanced components for an enhanced user experience.

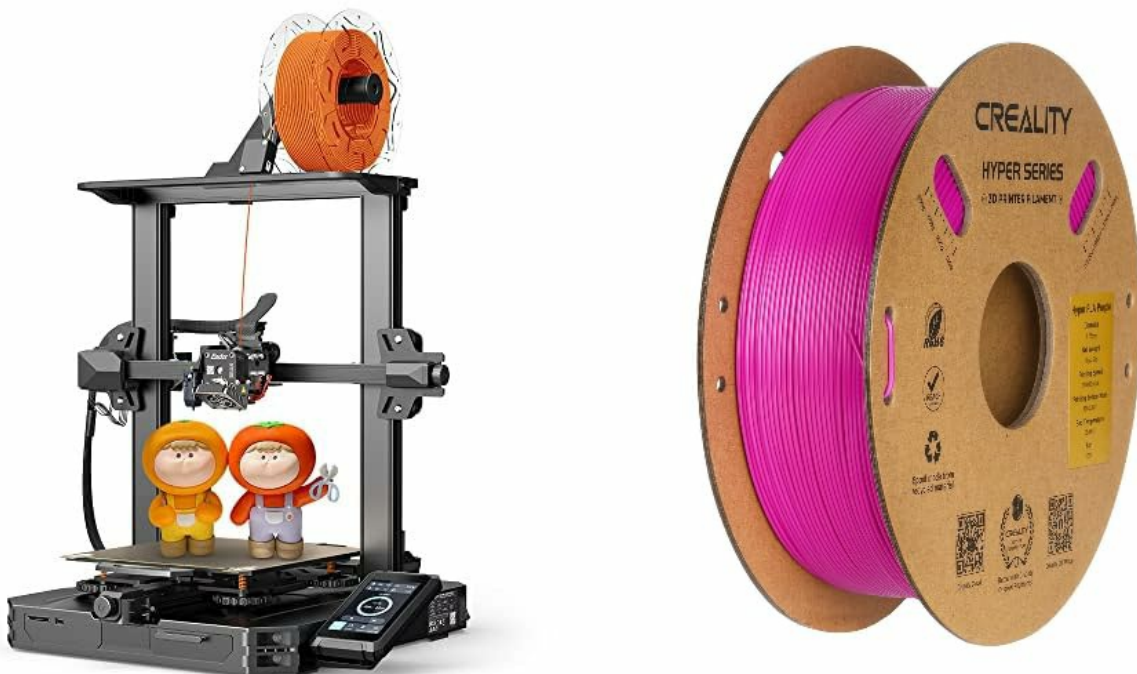


Image 1.1: The Creality Ender 3 S1 Pro 3D Printer shown alongside a spool of Comgrow Hyper Filament PLA Purple.

2. SAFETY INFORMATION

Please read all safety instructions carefully before operating the 3D printer to prevent injury or damage to the device.

- Always operate the printer in a well-ventilated area.
- Keep hands clear of moving parts during operation.
- The nozzle and print bed can reach high temperatures. Avoid direct contact during and immediately after printing.
- Do not leave the printer unattended for extended periods while operating.
- Ensure the power supply is correctly connected and grounded.
- Keep children and pets away from the printer.

3. PACKAGE CONTENTS

Verify that all components are present upon unpacking:

- Creality Ender 3 S1 Pro 3D Printer (Main Unit)
- Comgrow Hyper Filament PLA Purple (1 Spool)
- Tool Kit (Wrenches, Screwdrivers, Pliers, etc.)
- Power Cable
- USB Cable
- SD Card and Card Reader
- Sample Filament
- User Manual (this document)

4. SETUP AND ASSEMBLY

The Ender 3 S1 Pro is designed for quick assembly, typically completed in 6 steps. Follow the included quick start guide for detailed visual instructions.

4.1 Initial Assembly

Carefully unbox all components. Attach the gantry to the base, connect the necessary cables, and secure the filament holder. Ensure all screws are tightened appropriately.

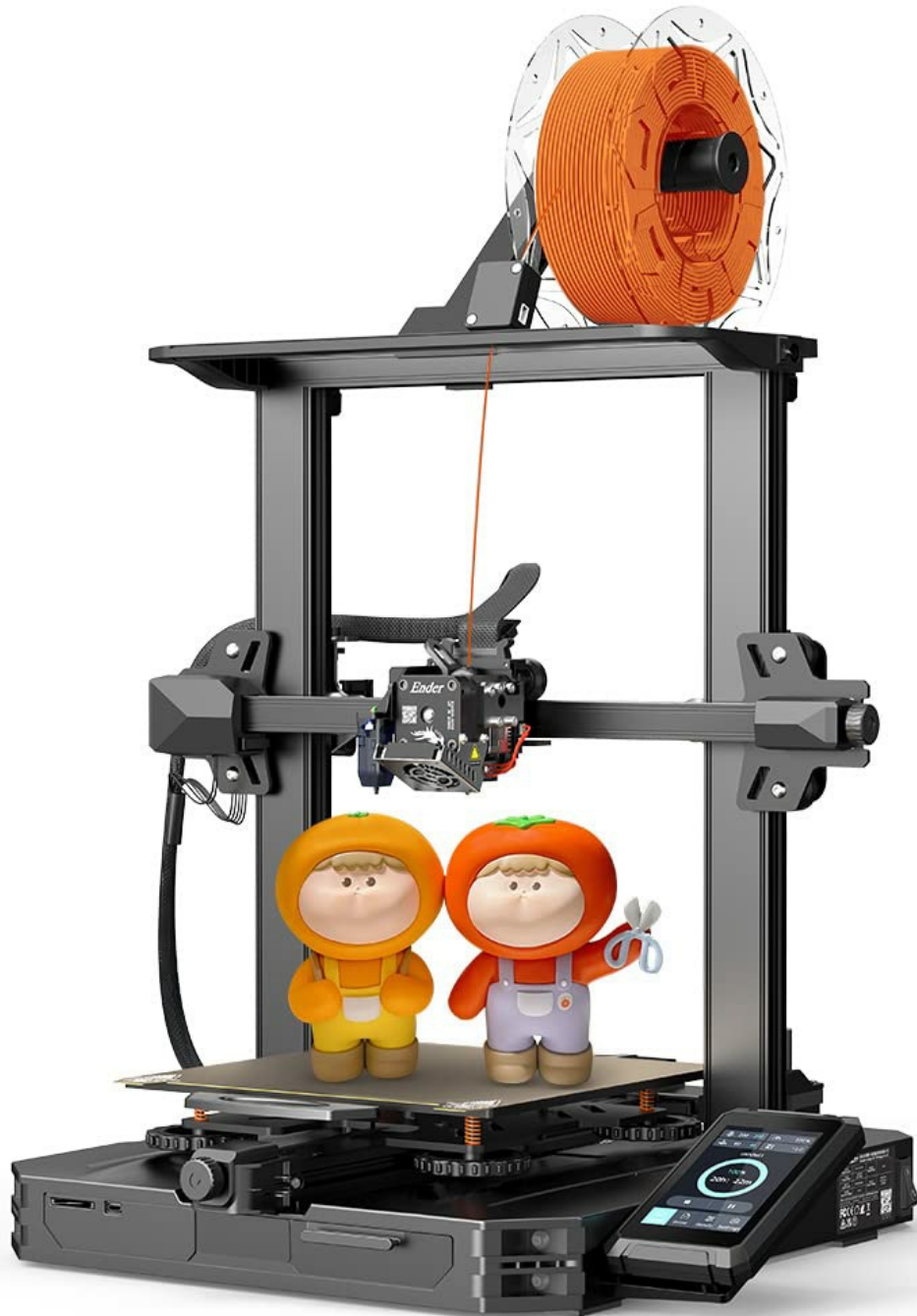


Image 4.1: The fully assembled Creality Ender 3 S1 Pro 3D Printer, ready for operation.

4.2 Filament Loading

The printer features a "Sprite" All-Metal Direct Drive Extruder, which facilitates smooth filament feeding. To load filament:

1. Mount the Comgrow Hyper Filament PLA Purple spool onto the filament holder.
2. Preheat the nozzle to the recommended temperature for PLA (typically 200-220°C).
3. Gently insert the filament into the extruder's input hole.
4. Press the extruder lever to open the gears and push the filament through until it exits the nozzle.

Sprite" Full-metal Direct Dual-gear Extruder

Compatible with Various Flexible Filament



Dual metal gears for feeding with pushing force of up to 80N



Lightweight Only 210g



Direct extrusion supporting flexible filaments



Image 4.2: The "Sprite" Full-metal Direct Dual-gear Extruder, designed for reliable filament feeding.

4.3 CR-Touch Auto-Leveling

The CR-Touch auto-leveling sensor simplifies bed leveling, ensuring optimal first layer adhesion. This system uses a 16-point measurement process for precise calibration.

1. Navigate to the "Leveling" or "Auto-Level" option on the printer's touch screen.
2. Initiate the CR-Touch leveling process. The sensor will probe 16 points across the print bed.
3. Once complete, the printer will store the bed mesh data. No manual adjustments are typically needed after this.

CR-Touch Automatic Bed Leveling

CR-Touch auto-level sensor makes it easy to level the bed.
16 points level makes the printing more precise.

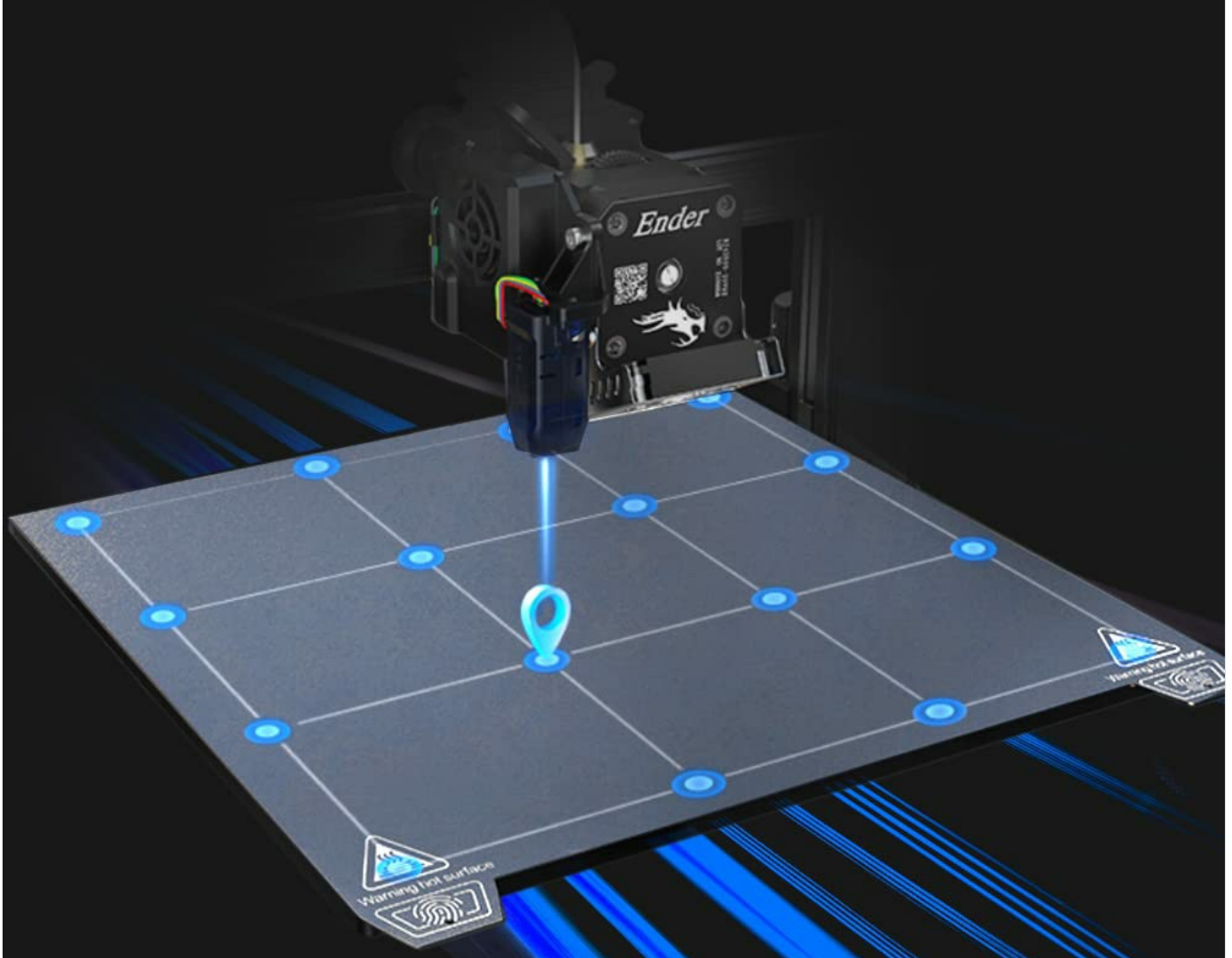


Image 4.3: Visual representation of the CR-Touch automatic bed leveling process.

5. OPERATING INSTRUCTIONS

5.1 User Interface

The Ender 3 S1 Pro features a 4.3-inch color touch screen with a user-friendly interface. Navigate through menus to control printing, preheat, level the bed, and access settings.

Upgraded New User Friendly UI

4.3-inch touch to control, easy to use



Image 5.1: The intuitive 4.3-inch color touch screen for printer control.

5.2 Printing Process

1. Prepare your 3D model using slicing software (e.g., Creality Slicer, Cura) and save it to the SD card in G-code format.
2. Insert the SD card into the printer.
3. Select "Print" from the main menu on the touch screen and choose your G-code file.
4. The printer will automatically preheat the nozzle and bed, perform any final leveling checks, and begin printing.
5. Monitor the print progress via the screen. The integrated LED light can assist in dark environments.

5.3 Filament Compatibility and High-Temperature Printing

The Ender 3 S1 Pro features an upgraded brass nozzle capable of reaching 300°C, expanding its filament compatibility. This allows for printing with a wider range of materials beyond standard PLA, including:

- PLA (Polylactic Acid) - e.g., Comgrow Hyper Filament PLA Purple

- ABS (Acrylonitrile Butadiene Styrene)
- PETG (Polyethylene Terephthalate Glycol)
- PA (Nylon)
- TPU (Thermoplastic Polyurethane)
- Wood-filled filaments

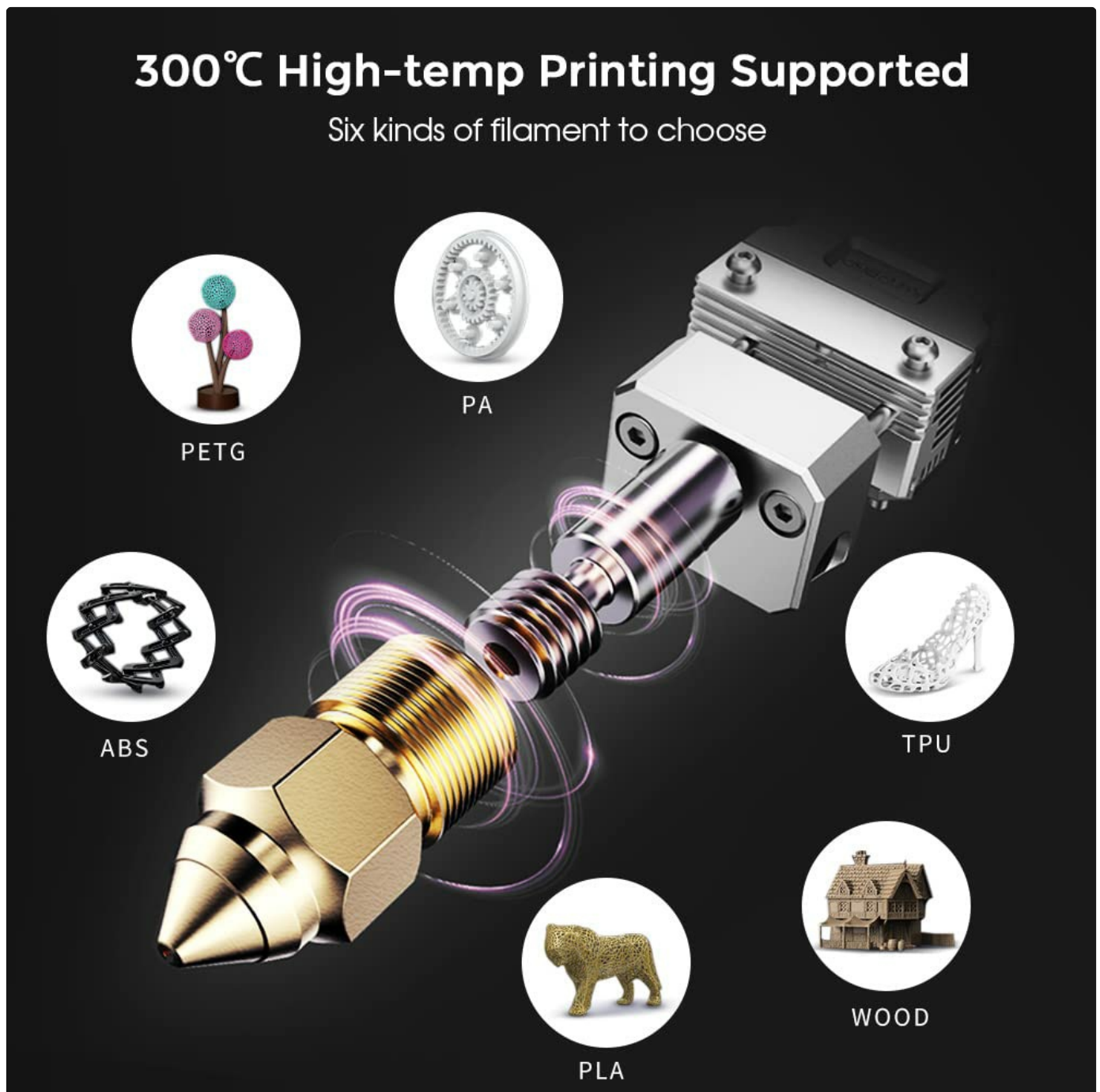


Image 5.2: The 300°C high-temperature nozzle supports a diverse range of filament materials.

5.4 Printing Speed

The 2024 version of the Ender 3 S1 Pro offers significantly faster printing speeds, reaching up to 200 mm/s. This allows for quicker completion of print jobs compared to previous models.

Remarkable Printing Speed Reach to 200mm/s

2024 Year New Version

Ender 3 S1 Pro

33min(200mm/s)

Old Version

Ender 3 S1 Pro

1 h 46min*(50mm/s)

VS



Image 5.3: Speed comparison demonstrating the faster printing capabilities of the new Ender 3 S1 Pro.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your 3D printer.

- **Clean the Print Bed:** After each print, allow the PEI spring steel print bed to cool and remove any residual filament. Clean with isopropyl alcohol if necessary.
- **Nozzle Cleaning:** Periodically check the nozzle for clogs. Use the provided needle to clear any blockages while the nozzle is heated.
- **Extruder Maintenance:** Ensure the extruder gears are free of filament debris. The "Sprite" direct drive extruder is designed for reliability, but occasional inspection is recommended.
- **Lubricate Z-axis Screws:** Apply a small amount of lithium grease to the Z-axis lead screws every few months to ensure smooth movement.
- **Tighten Belts and Screws:** Periodically check and tighten all belts and screws to maintain printer stability and

accuracy.

7. TROUBLESHOOTING

This section addresses common issues you might encounter during 3D printing.

- **Filament Not Extruding:**
 - Check if the nozzle is clogged.
 - Ensure the extruder gears are gripping the filament.
 - Verify the hotend temperature is correct for the filament type.
- **Poor First Layer Adhesion:**
 - Re-run the CR-Touch auto-leveling process.
 - Clean the print bed thoroughly.
 - Adjust Z-offset slightly closer to the bed during the first layer.
- **Print Quality Issues (Layer Shifts, Gaps):**
 - Check belt tension on X and Y axes.
 - Ensure the printer is on a stable surface.
 - Verify Z-axis screws are clean and lubricated.
- **Printer Not Responding:**
 - Power cycle the printer.
 - Check all cable connections.
 - Ensure the SD card is properly inserted and not corrupted.

8. SPECIFICATIONS

Key technical specifications of the Creality Ender 3 S1 Pro 3D Printer:

- **Printing Technology:** FDM (Fused Deposition Modeling)
- **Build Volume:** 220 x 220 x 270 mm (8.66 x 8.66 x 10.63 inches)
- **Printing Speed:** Up to 200 mm/s
- **Extruder:** "Sprite" All-Metal Direct Drive Dual-Gear Extruder
- **Nozzle Temperature:** Up to 300°C
- **Heated Bed Temperature:** Up to 110°C
- **Leveling:** CR-Touch Automatic 16-point Bed Leveling
- **Filament Compatibility:** PLA, ABS, PETG, PA, TPU, Wood, and more.
- **Z-axis:** Dual Z-axis with Dual Motors and Dual Screws for enhanced stability and precision.
- **Display:** 4.3-inch Color Touch Screen
- **Print Surface:** PEI Spring Steel Sheet
- **Additional Features:** LED Light, Filament Runout Sensor, Power Loss Recovery.

Dual Z Axis & Dual Screw

Smoother and more precise printing



Image 8.1: The dual Z-axis design contributes to smoother and more precise printing.



Ender-3 S1 Pro



Ender-3 S1

	Ender-3 S1 Pro	Ender-3 S1
Maximum nozzle temperature	300°C	260°C
Maximum hotbed temperature	110°C	100°C
Extruder	Full-metal sprite extruder	Sprite extruder
Compatible filament	PLA,ABS,TPU,WOOD, PETG,PA	PLA,ABS TPU PETG

Image 8.2: Comparison of key specifications between Ender 3 S1 Pro and Ender 3 S1 models.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Comgrow or Creality website, or contact your retailer. Keep your purchase receipt as proof of purchase.

Online Resources:

- [Comgrow Official Store on Amazon](#)
- [Creality Official Website](#) (for general product support and firmware)

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question