Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

R QIDI TECHNOLOGY X-plus4

QIDI PLUS4 3D Printer User Manual

Model: X-plus4

1. Introduction

The QIDI PLUS4 is an advanced FDM 3D printer designed for both professionals and beginners, offering high-speed printing and a large build volume. It features a 65°C heated chamber and a 370°C integrated nozzle, enabling compatibility with a wide range of high-temperature filaments. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your QIDI PLUS4 3D printer.

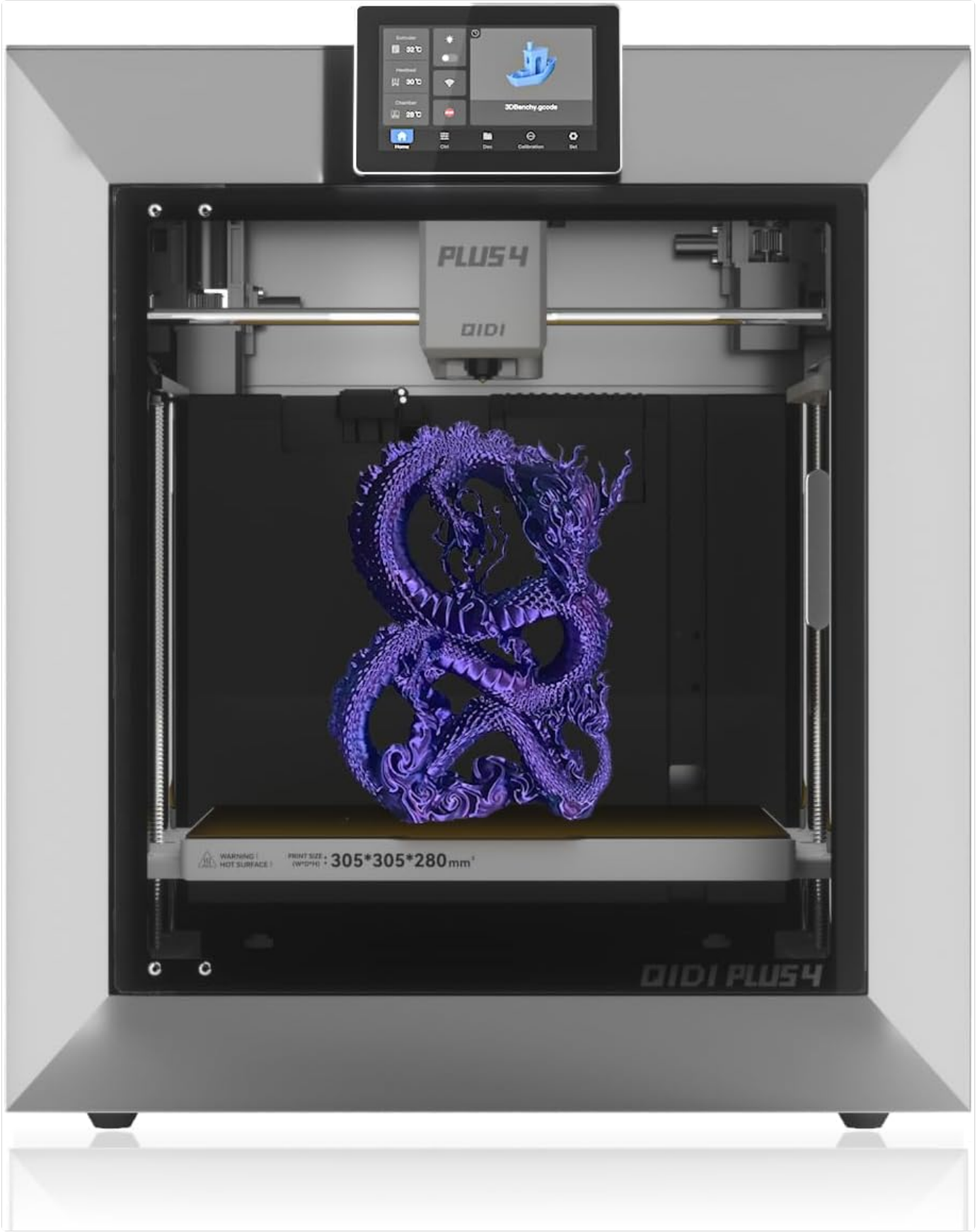

Figure 1: Front view of the QIDI PLUS4 3D Printer.

2. Setup

The QIDI PLUS4 is designed for quick and easy setup, allowing you to begin printing within approximately 10 minutes of

unboxing. Follow these general steps for initial setup:

1. **Unboxing:** Carefully remove the printer and all accessories from the packaging. Inspect for any visible damage.
2. **Placement:** Place the printer on a stable, level surface with adequate space around it for ventilation and access.
3. **Component Installation:** Install any components that are not pre-assembled, such as the filament spool holder or external brackets, as indicated in the quick start guide.
4. **Power Connection:** Connect the power cord to the printer and then to a suitable power outlet.
5. **Initial Power On:** Turn on the printer and follow the on-screen instructions for initial calibration and network setup.

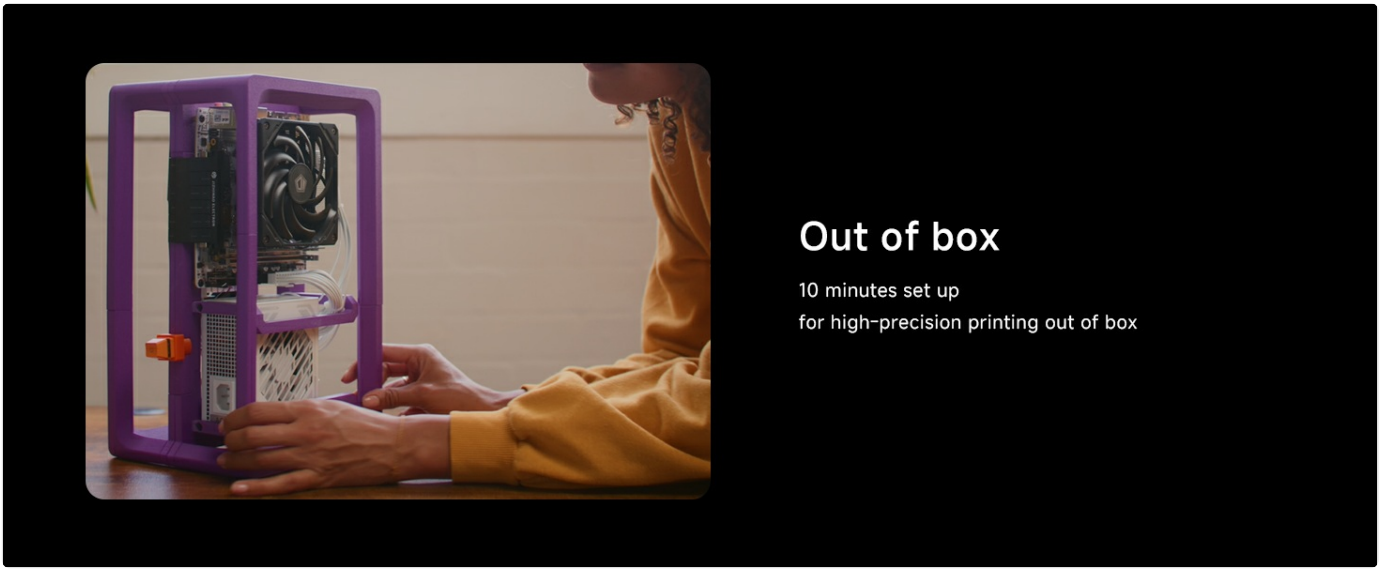

Figure 2: The QIDI PLUS4 is designed for quick setup right out of the box.

3. Operating Instructions

3.1 Printing Capabilities

- **Large Build Volume:** The PLUS4 offers a generous print size of 305 x 305 x 280 mm, allowing for the creation of larger models or multiple smaller parts simultaneously.



Figure 3: The 305x305x280mm build volume enables printing of large models.

- **High-Speed Printing:** Utilizing a Core XY structure, the PLUS4 achieves print speeds up to 600mm/s, significantly enhancing efficiency. Advanced algorithms help reduce ghosting and ringing artifacts.

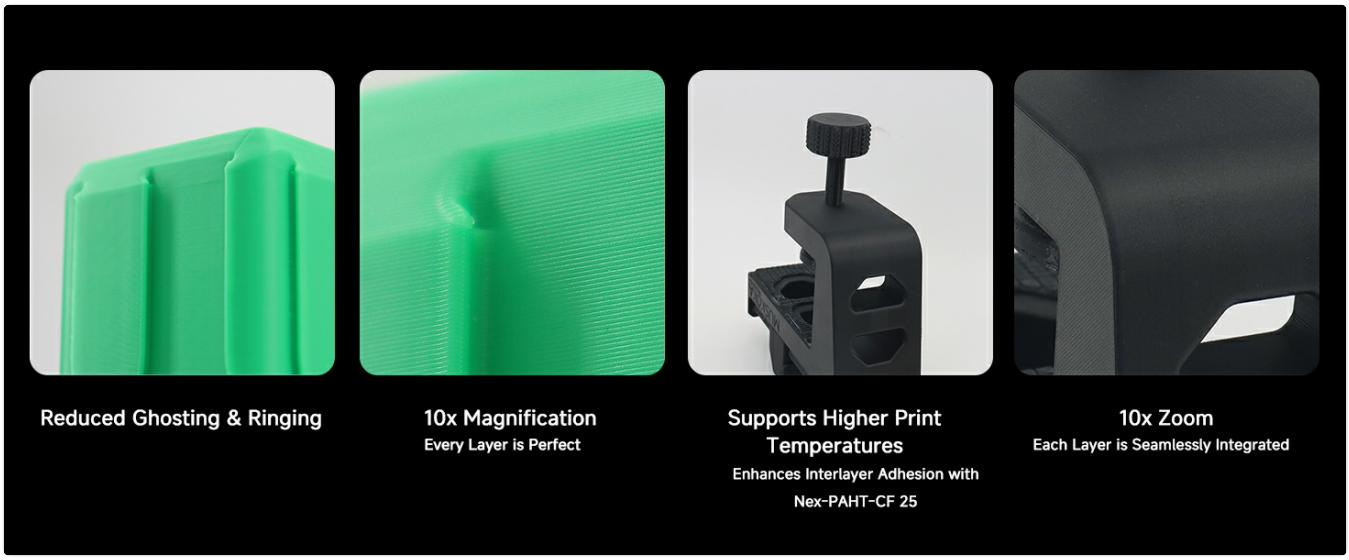

Figure 4: Optimized mechanics reduce print artifacts like ghosting and ringing.

- **Active Chamber Heating:** The second-generation active chamber heating system features a 400W heating element, air circulation, and dual-layer insulation. This ensures a stable and uniform chamber temperature of up to 65°C, crucial for printing high-temperature filaments and preventing warping.



Figure 5: The active chamber heating system ensures consistent temperatures.

- **High-Temperature Nozzle:** Equipped with an upgraded 80W high-temperature hotend and a multi-metal integrated throat nozzle, the printer can reach a maximum temperature of 370°C. This design reduces clogging risks and offers exceptional wear resistance.



Figure 6: The nozzle can reach up to 370°C for high-temperature filaments.

- **Wide Material Compatibility:** The PLUS4 supports a broad range of filaments, including PPS-CF, PPA-CF/GF, ABS, ASA, PC, PA, PET, and more, thanks to its advanced heating and nozzle systems.

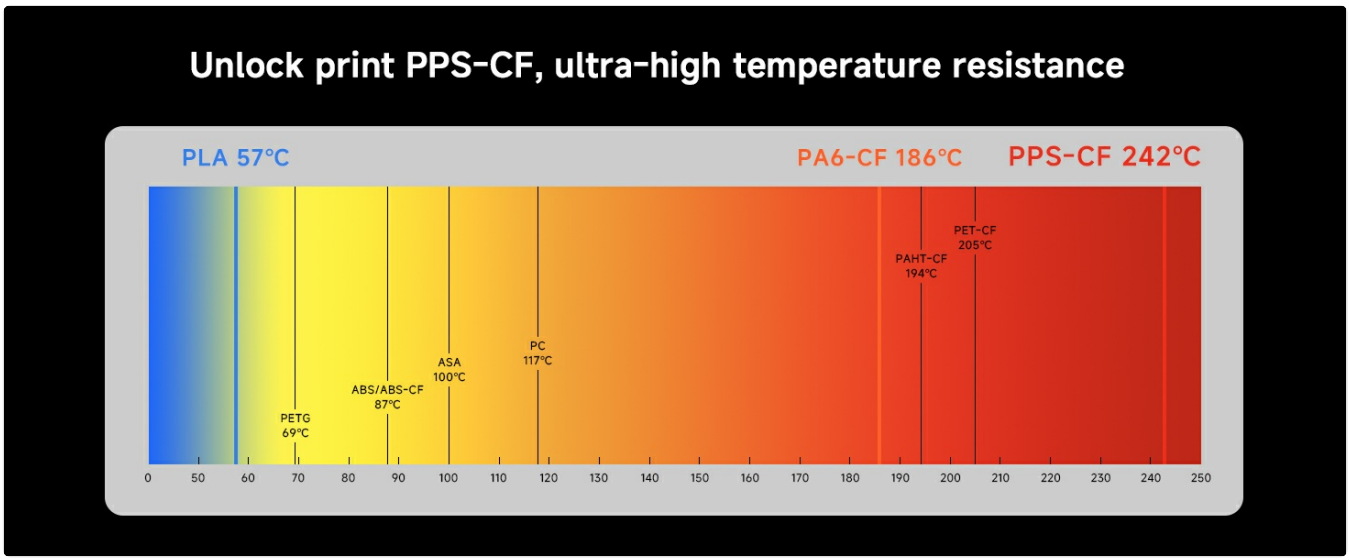

Figure 7: The printer supports advanced filaments such as PPS-CF.

- **Automatic Leveling:** The dual-sensor auto-leveling system ensures a perfect first layer, which is critical for print adhesion and quality.

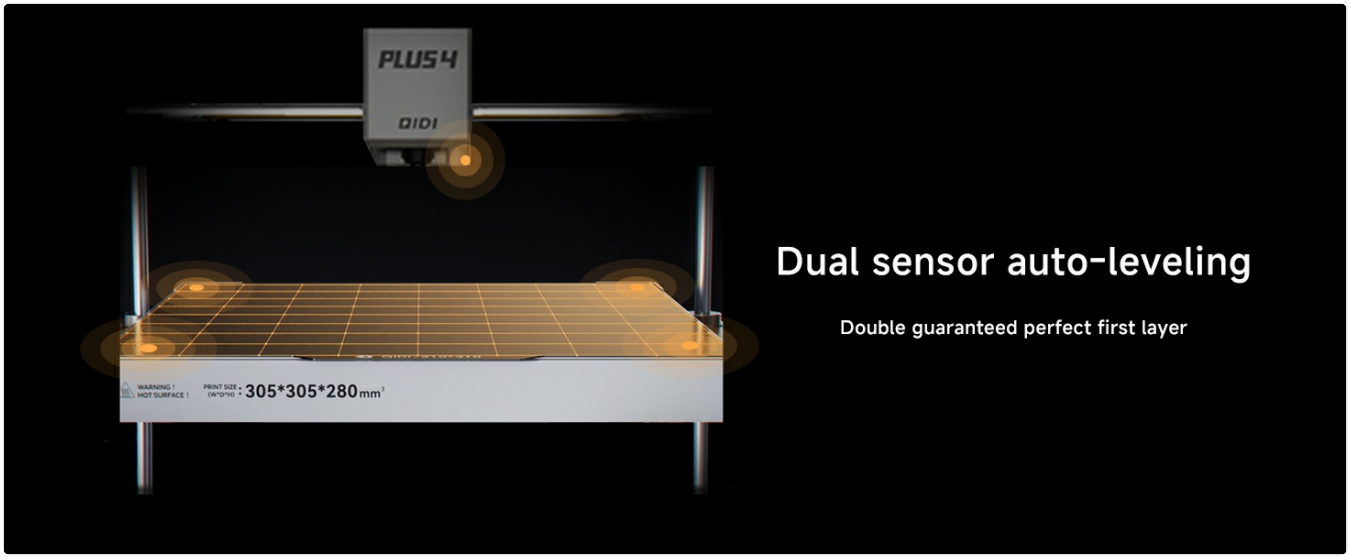

Figure 8: Dual sensor auto-leveling for consistent first layers.

- **Filament Detection:** Features include filament wrap and break detection, which helps prevent failed prints and reduces material waste.

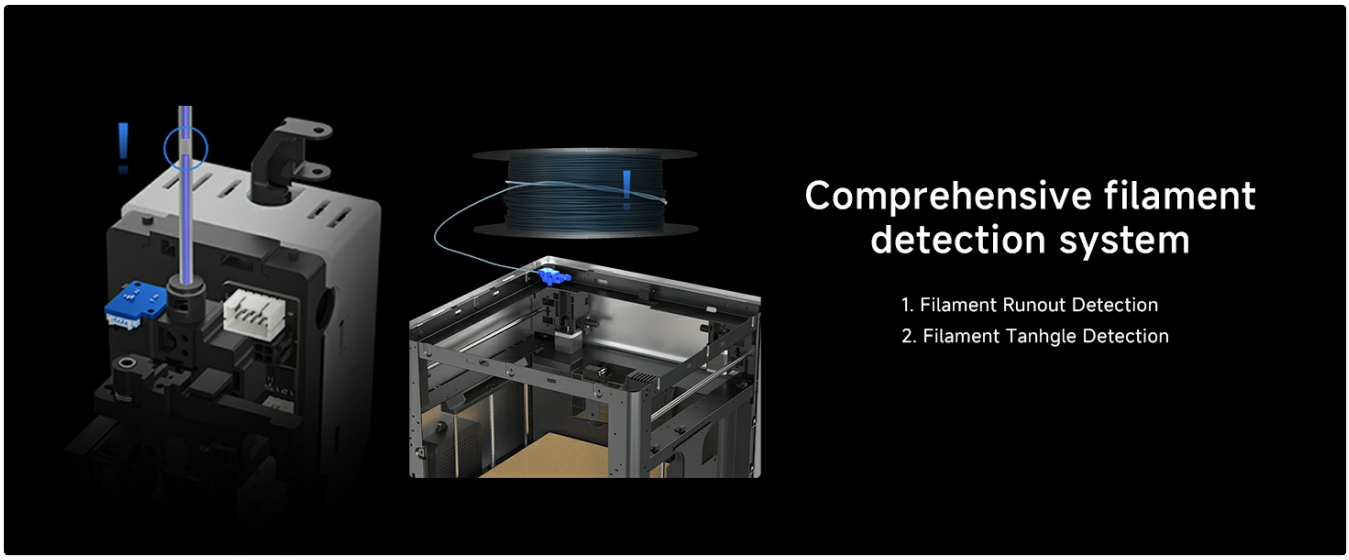

Figure 9: The filament detection system monitors for runout and tangles.

3.2 Software and Connectivity

- **Klipper Firmware:** The printer is equipped with Klipper V0.12.0, offering open-source compatibility and supporting further expansion.



Figure 10: The printer runs on Klipper V0.12.0 firmware.

- **User Interface:** A 5-inch HD screen provides an intuitive user interface for easy operation.



Figure 11: The 5-inch HD screen with a new UI for operation.

- **Remote Control:** Monitor and control your printer remotely using the QIDI mobile app or QIDI Studio slicer. An integrated HD camera allows for real-time monitoring and time-lapse photography.

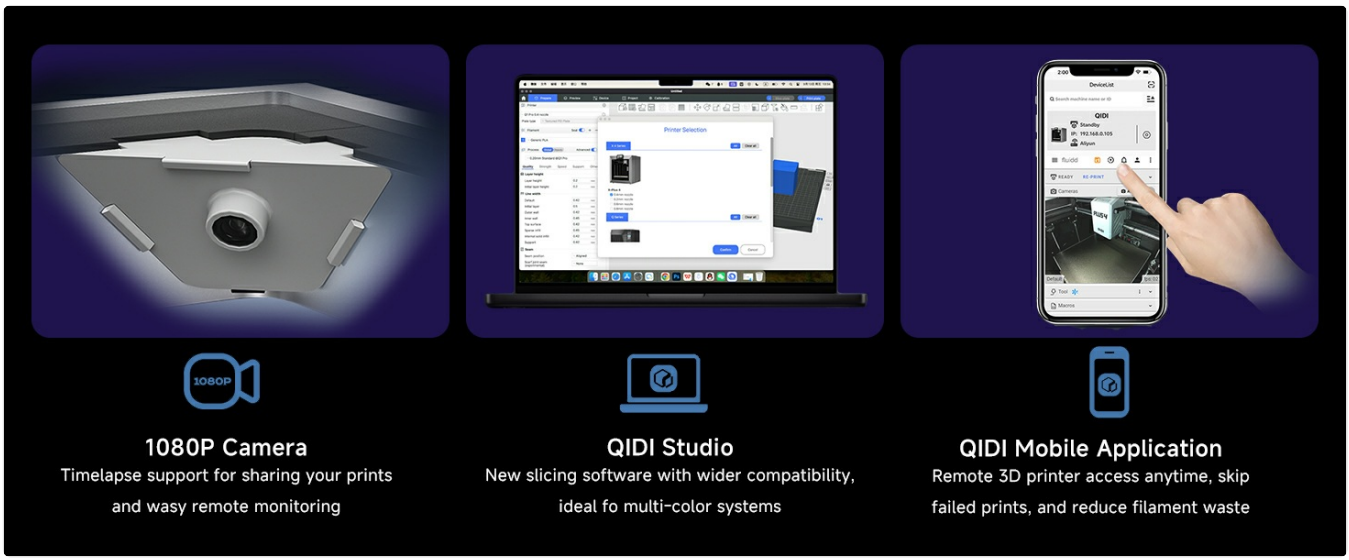

Figure 12: Remote monitoring and control via QIDI Studio and mobile app.

- **Connectivity:** The printer supports Ethernet, USB, and Wi-Fi connections for flexible integration into your workflow.

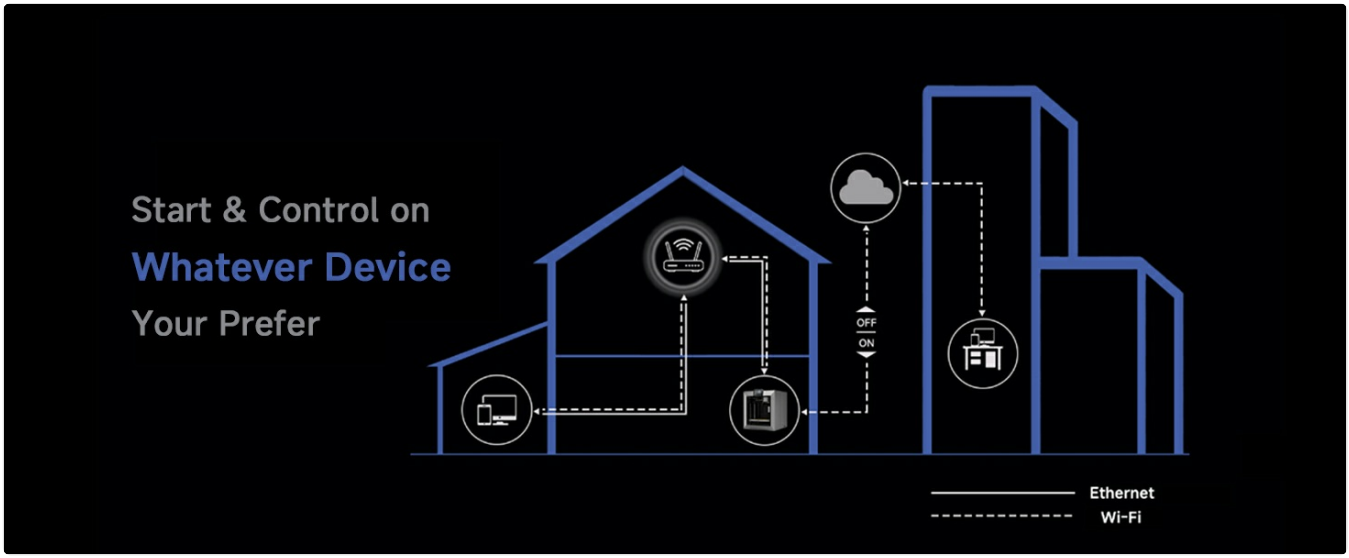

Figure 13: Various connectivity options for the QIDI PLUS4.

3.3 Multi-Color Printing (Future Expansion)

The QIDI X-PLUS4 3D Printer includes an integrated filament cutter and is designed to be compatible with the QIDI BOX, a multi-filaments automatic feeding box. This accessory, expected to launch in the first quarter of 2025, will enable multi-color printing capabilities.

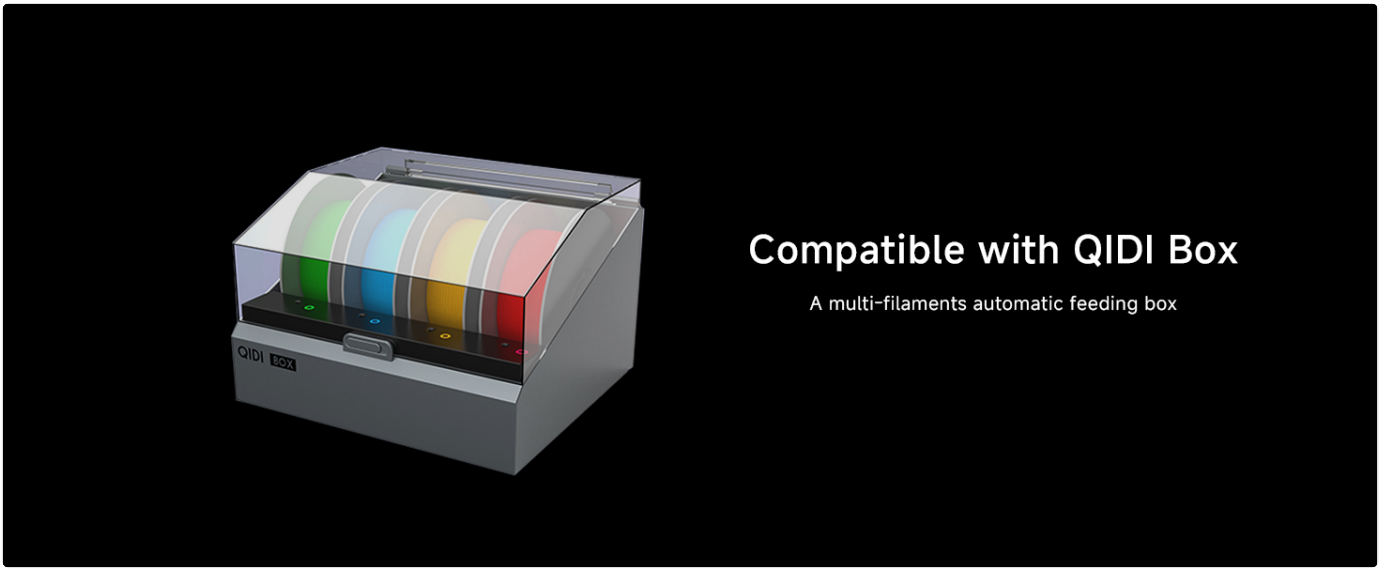

Figure 14: The QIDI Box, a multi-filament automatic feeding system (sold separately).

4. Maintenance

Regular maintenance ensures optimal performance and longevity of your QIDI PLUS4 3D printer.

- **Print Bed:** The 6mm thickened aluminum hot bed platform provides enhanced flatness and durability. Keep the print surface clean and free of debris. Refer to the quick start guide for specific cleaning instructions for your print surface type.

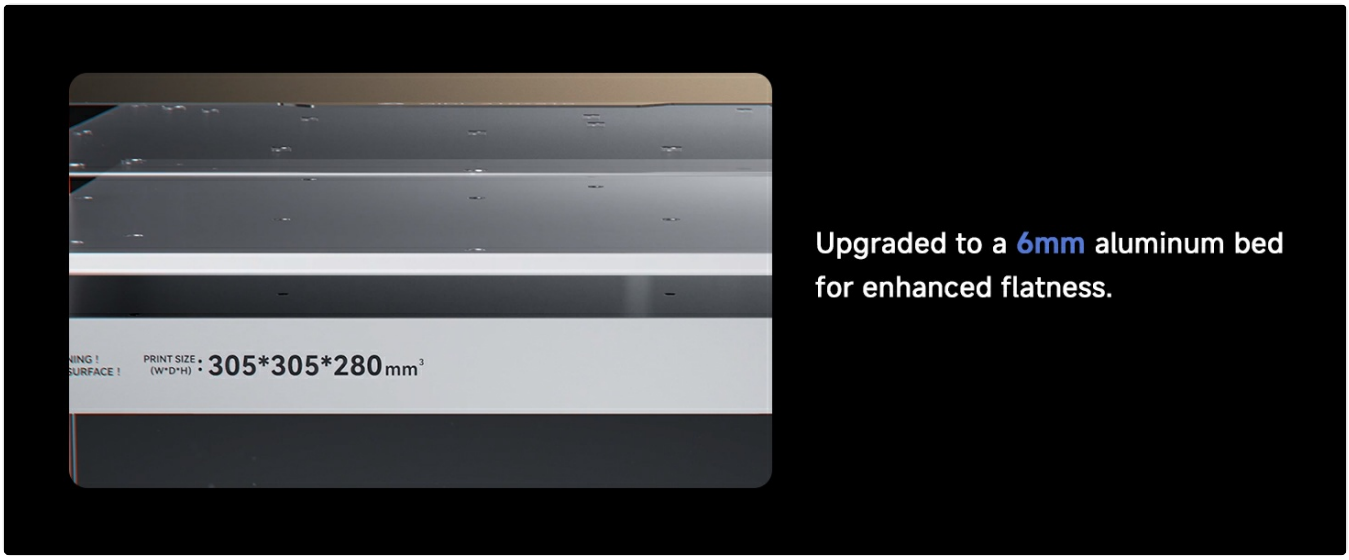

Figure 15: The robust 6mm aluminum print bed.

- **Nozzle:** The multi-metal composite nozzle with a hardened tip is super wear-resistant. While designed for durability and easy installation/removal, periodic inspection for wear or clogs is recommended. Follow manufacturer guidelines for nozzle replacement if necessary.

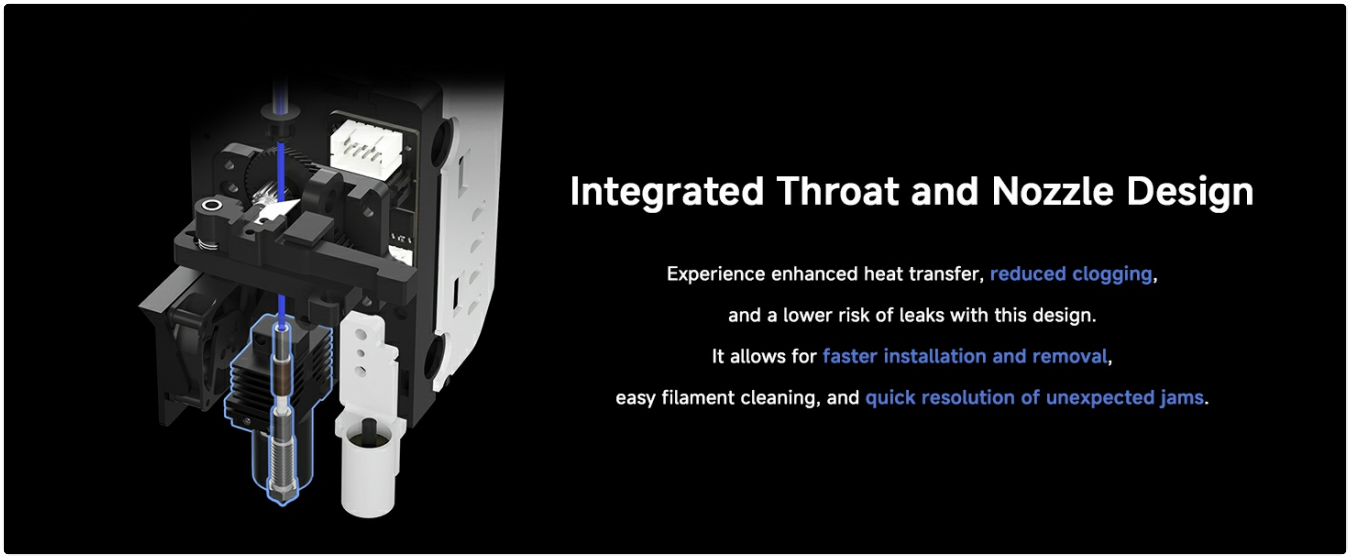

Figure 16: The integrated throat and nozzle design facilitates maintenance.

- **Linear Shafts and Lead Screws:** The upgraded 10mm diameter linear shafts and lead screws contribute to the printer's precision and durability. Keep these components clean and lubricated according to the manufacturer's recommendations.



Figure 17: The robust 10mm linear shafts and lead screws.

- **General Cleaning:** Regularly clean the printer's exterior and interior to prevent dust and filament debris buildup, which can affect performance.

5. Troubleshooting

This section addresses common issues you might encounter with your QIDI PLUS4 3D printer.

- **Power Loss Recovery:** The PLUS4 features power loss recovery, allowing prints to resume after unexpected power outages. Ensure this feature is enabled in your printer settings.

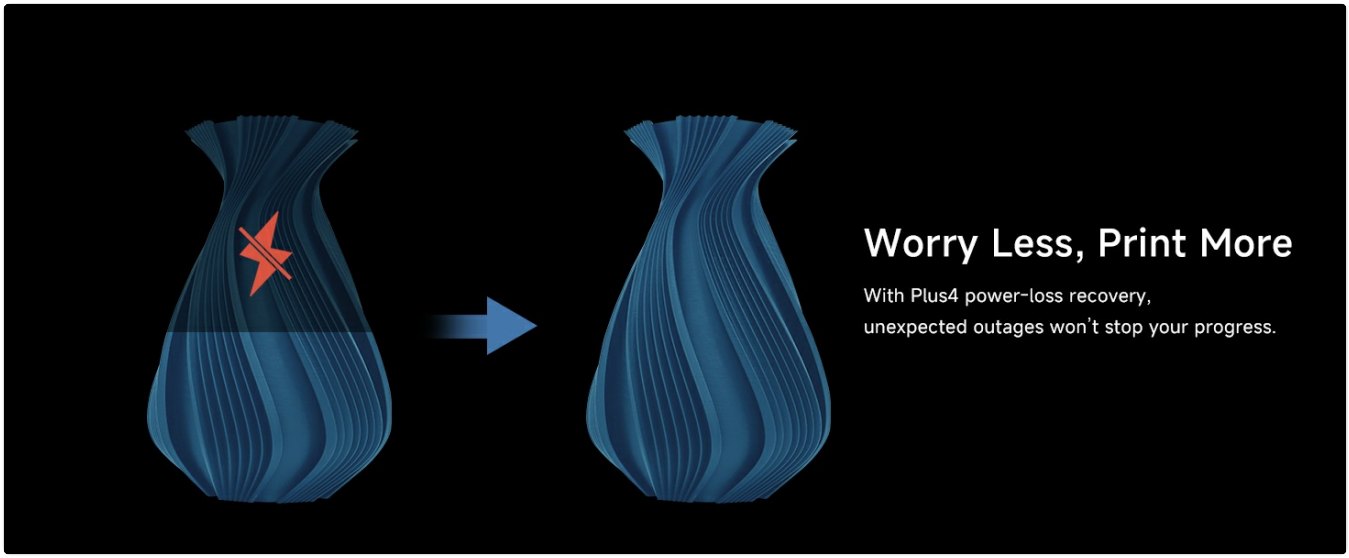

Figure 18: Power loss recovery helps prevent print failures due to outages.

- **Filament Issues:** If you experience filament runout or tangles, the comprehensive filament detection system should alert you. Check the filament path for obstructions and ensure the spool is feeding smoothly.
- **Warping or Cracking:** For high-temperature filaments like ABS or PC, ensure the active chamber heating is set to the appropriate temperature (up to 65°C) to minimize warping and cracking.
- **Nozzle Clogging:** The integrated nozzle design is built to reduce clogging. If clogs occur, refer to the maintenance section for instructions on nozzle cleaning or replacement.
- **Poor First Layer Adhesion:** Verify that the dual-sensor auto-leveling has been performed correctly. Ensure the print surface is clean and consider adjusting Z-offset if necessary.
- **Print Quality Issues (Ghosting/Ringing):** While the printer is designed to minimize these, ensure all belts are properly tensioned and the printer is on a stable surface. The 9mm 1.5GT belt and VFA Avoiding Algorithm contribute to print quality.



Figure 19: The 9mm 1.5GT belt and VFA Avoiding Algorithm enhance print precision.

6. Specifications

Feature	Detail

Feature	Detail
Brand	R QIDI TECHNOLOGY
Model	X-plus4
Printing Technology	FDM/FFF
Build Volume	305 x 305 x 280 mm (12 x 12 x 11 inches)
Max Nozzle Temperature	370°C
Max Chamber Temperature	65°C
Compatible Filaments	PPS-CF, PPA-CF/GF, ABS, ASA, PC, PA, PET, PLA, etc.
Connectivity	Ethernet, USB, Wi-Fi
Operating System Compatibility	Windows, MacOS, Linux
Product Dimensions	49D x 51W x 56.5H centimetres
Item Weight	30.84 kg
Manufacturer	Zhejiang QIDI TECHNOLOGY CO.,LTD

7. Warranty and Support

QIDI TECHNOLOGY is committed to providing excellent customer service and support for its products. Many users have reported positive experiences with the support team, noting quick responses and effective solutions.

- **Warranty Information:** For detailed warranty terms and conditions, please refer to the documentation included with your printer or visit the official R QIDI TECHNOLOGY website.
- **Customer Support:** If you encounter any issues or have questions regarding your QIDI PLUS4 3D printer, please contact R QIDI TECHNOLOGY customer support. Contact information can typically be found on the manufacturer's website or in the quick start guide.
- **Online Resources:** Additional resources, including FAQs, firmware updates, and community forums, may be available on the R QIDI TECHNOLOGY website.

For more information about R QIDI TECHNOLOGY products, visit their official store:R QIDI TECHNOLOGY Store

© 2024 R QIDI TECHNOLOGY. All rights reserved.

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

Open the live page

https://manuals.plus/asin/B0D9PXSH9S

More documents and user manuals: **https://manuals.plus/**