## Voxelab Aquila X2

# Voxelab Aquila X2 Upgraded 3D Printer Instruction Manual

Model: Aquila X2

Brand: Voxelab

## INTRODUCTION

The Voxelab Aquila X2 is an upgraded 3D printer designed for ease of use and high-quality printing. It features a removable carborundum glass platform, fully open-source capabilities, and a resume printing function. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your Aquila X2 3D printer.
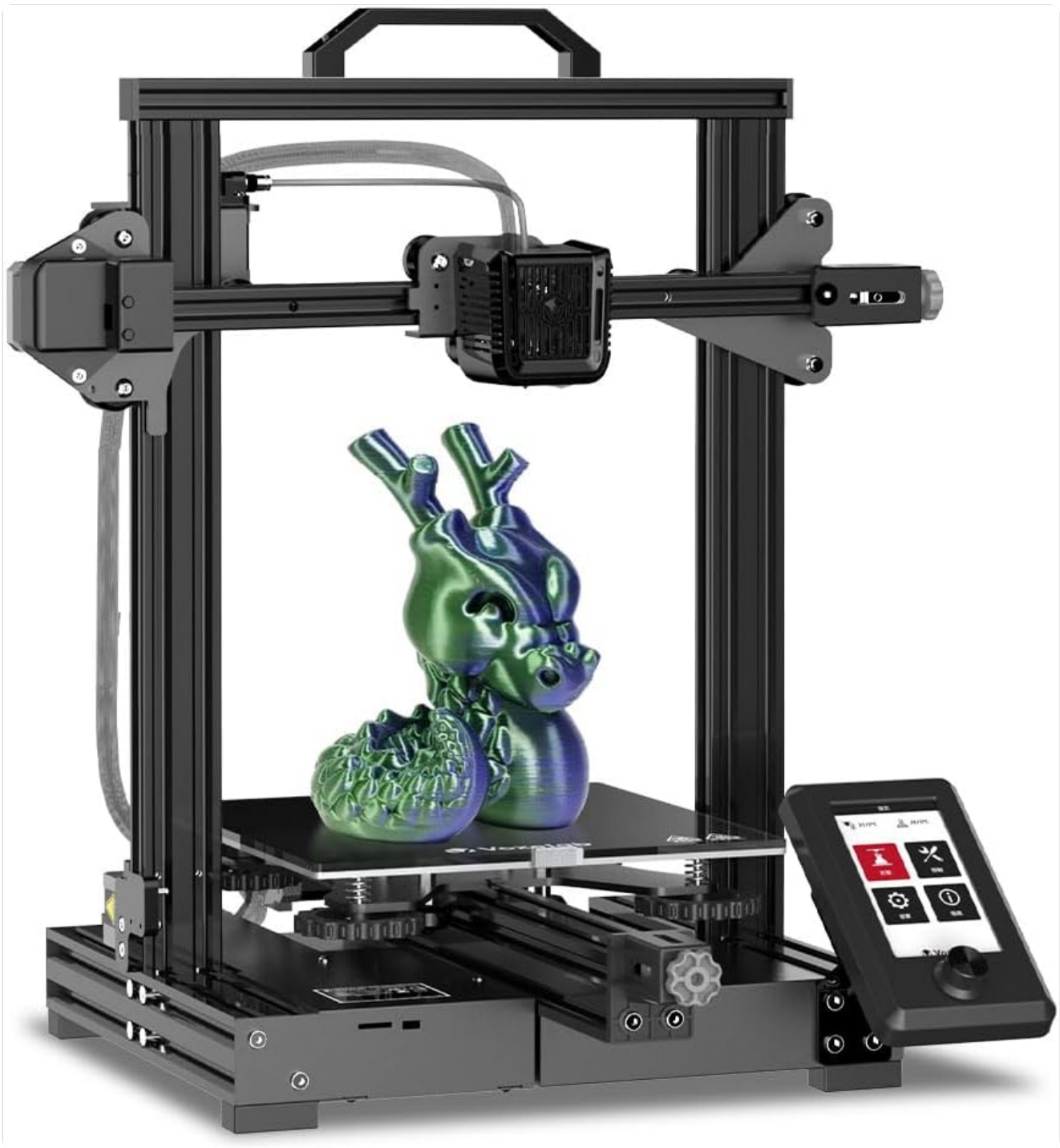
Figure 1: Voxelab Aquila X2 3D Printer with a sample print.

# 1. SETUP AND ASSEMBLY

Proper assembly is crucial for optimal performance. Follow the steps below to set up your Voxelab Aquila X2 printer. For a visual guide, please refer to the official installation video.

## 1.1 Unboxing and Component Identification

Carefully unbox all components and verify against the packing list. Ensure all parts are present and undamaged before proceeding with assembly.

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Video 1: VOXELAB Aquila X2 Installation Video. This video provides a step-by-step guide for assembling the printer.

## 1.2 Z-axis and X-axis Assembly

Attach the Z-axis profiles to the base and then install the X-axis kit, ensuring all screws are tightened securely. The Z-axis

limit switch profile should be on the left side of the printer.



**Build Your Unique Aquila**

With open-source and easy-to-customize firmware, any 3D printer enthusiast can build your own 3D printer based on Voxelab Aquila(X2). Here's some Aquila modification inspiration from our users, take a look and be amazed by the endless possibilities for customization!

Figure 2: The robust all-metal body of the Aquila X2, highlighting its structural components.

## 1.3 Screen and Spool Holder Installation

Mount the 4.3-inch color screen to the printer base and attach the filament spool holder to the top gantry profile. Ensure all cables are connected correctly.

## New UI & 4.3 inch color screen

Revised vertical command panel better conforms to your operation habits.

## More Choices of Filaments

PLA, ABS, PETG, TPU filaments supported, get the best printings with Voxelab filaments

PLA

ABS

PETG

TPU

Figure 3: The Aquila X2's new user interface displayed on its 4.3-inch color screen.

## 1.4 Power Connection and Initial Power On

Connect the power cord and ensure the voltage switch (115V/230V) is set correctly for your region before turning on the power switch. The printer will perform an auto-home sequence upon first power-on.
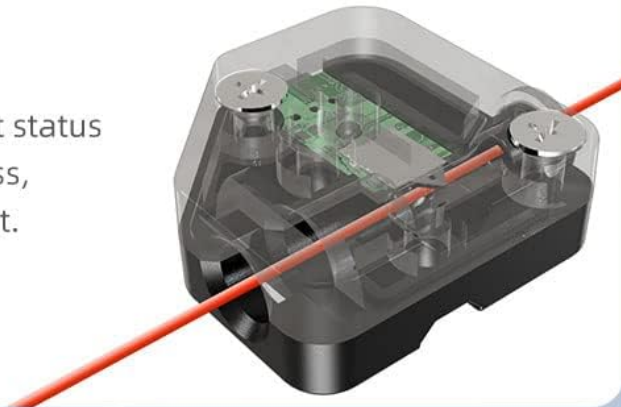
## 2. OPERATING INSTRUCTIONS

This section guides you through the basic operations of your Aquila X2 3D printer, from loading filament to starting your first print.

### 2.1 Filament Loading

Hang the filament spool on the material rack. Cut the end of the filament at an angle and insert it into the filament feeding port. Use the "Automatic Load" function from the Control menu on the screen to feed the filament until it extrudes evenly from the nozzle.



Figure 5: The filament detection sensor, which pauses prints when filament runs out.
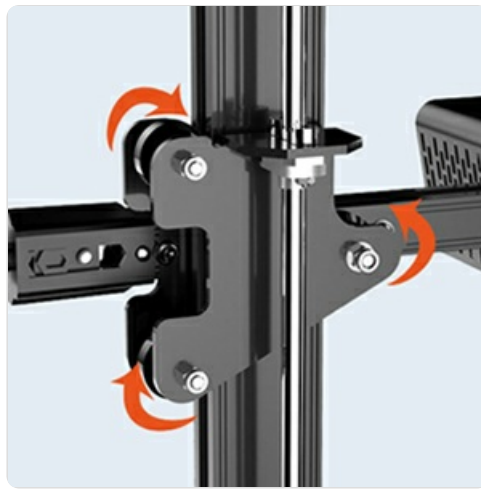
Figure 6: The intelligent auto filament feed-in technology simplifies filament loading.

## 2.2 Bed Leveling

Accurate bed leveling is essential for successful prints. Use a piece of A4 paper between the nozzle and the print bed. Move the nozzle to each of the four corners and adjust the leveling nuts until you feel a slight resistance when moving the paper. The nozzle should just scratch the paper lightly.

## 2.3 Starting a Print

Prepare your 3D model using a slicing software (e.g., Cura, PrusaSlicer) and save it to a TF card. Insert the TF card into the printer's slot. On the printer's screen, navigate to the "Print" menu, select your file, and confirm to start printing.

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Video 2: VOXELAB Upgraded Aquila X2 3D Printer. This video demonstrates the printer's features and operation.

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Video 3: Voxelab Aquila X2 - Make Every Day Matter. A short overview of the printer's capabilities and user experience.

## 3. MAINTENANCE

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

- **Clean the Print Bed:** After each print, allow the carborundum glass platform to cool down and then gently remove the print. Clean the surface with isopropyl alcohol to ensure good adhesion for future prints.
- **Nozzle Cleaning:** Periodically check the nozzle for clogs. Use the provided needle or perform a cold pull if necessary to clear any obstructions.
- **Lubricate Moving Parts:** Apply a small amount of lithium grease to the Z-axis lead screw and smooth rods every few months to ensure smooth movement.
- **Check Belts:** Ensure the X and Y-axis belts are properly tensioned. They should be taut but not overly tight.

## 4. TROUBLESHOOTING

Here are some common issues and their solutions:

| Problem | Possible Cause | Solution |
| --- | --- | --- |
| Print not sticking to bed | Bed not leveled, dirty bed, incorrect bed temperature. | Re-level the print bed. Clean the bed with isopropyl alcohol. Adjust bed temperature in slicing software. |
| Filament not extruding | Clogged nozzle, tangled filament, incorrect temperature. | Clear nozzle clog. Untangle filament. Verify nozzle temperature. |

| Problem | Possible Cause | Solution |
|---|---|---|
| Printer stops mid-print | Power outage, filament run-out. | The Aquila X2 has a resume printing function; it should automatically resume. Check filament sensor for run-out. |
| Poor print quality | Incorrect print settings, worn nozzle, loose belts. | Adjust print speed, temperature, and retraction settings. Replace nozzle if worn. Check and tighten belts. |

# 5. SPECIFICATIONS

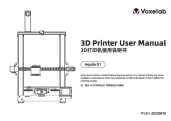| Specification | Value |
|---|---|
| Product Dimensions | 22.44 x 14.96 x 8.46 inches |
| Item Weight | 2.2 pounds (1 Kilograms) |
| Item Model Number | Aquila X2 |
| Brand | Voxelab |
| Material | Carborundum, PLA |
| Color | Black |
| Date First Available | April 17, 2021 |
| Compatible Filaments | PLA, ABS, PETG 1.75mm |
| Build Platform | Removable Carborundum Glass Platform |
| Motherboard | 32-bit silent motherboard |
| Display | 4.3-inch color screen |

# 6. WARRANTY AND SUPPORT

Voxelab provides lifetime technical assistance for all its 3D printers. For any questions regarding product operation or software, please feel free to contact Voxelab customer support. Refer to the official Voxelab website for the most up-to-date warranty information and contact details.

Voxelab is a subsidiary brand of Flashforge, a premium 3D printer manufacturer, ensuring reliable support and resources.

## Related Documents - Aquila X2

[Voxelab Aquila 3D Printer User Manual](#)
Comprehensive user manual for the Voxelab Aquila 3D printer, covering setup, operation, troubleshooting, and after-sales service. Includes detailed instructions, specifications, and safety guidelines.

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| | [Voxelab Aquila X2 3D](#) <br> Voxelab Aquila X2 3D        3D |
| | [Voxelab Polaris 3D Printer Quick Start Guide](#) <br> A comprehensive guide to setting up and operating the Voxelab Polaris 3D printer, including installation, leveling, first print, post-processing, and software usage with CHITUBOX and VoxelPrint. |
| | [Voxelab Aquila X2 3D Printer User Manual](#) <br> Comprehensive user manual for the Voxelab Aquila X2 3D printer, covering product introduction, assembly, operation, troubleshooting, and after-sales service. |
| | [Voxelab Aquila D1 3D Printer User Manual](#) <br> Comprehensive user manual for the Voxelab Aquila D1 3D printer, covering setup, operation, maintenance, and troubleshooting. |
| | [Voxelab Proxima 8.9 Quick Start Guide: Setup, Operation, and Maintenance](#) <br> This guide provides essential information for setting up, operating, and maintaining the Voxelab Proxima 8.9 3D printer. It covers safety precautions, printer components, leveling, first printing, post-processing, FEP film replacement, software usage, and general maintenance. |