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› [ELEGOO Saturn 3 Ultra MSLA 3D Printer and Mercury X Wash & Cure Station User Manual](#)

ELEGOO Saturn 3 Ultra, Mercury X

ELEGOO Saturn 3 Ultra MSLA 3D Printer and Mercury X Wash & Cure Station User Manual

Detailed instructions for the setup, operation, and maintenance of your ELEGOO Saturn 3 Ultra 3D Printer and Mercury X Wash & Cure Station.

1. SETUP AND INITIAL PREPARATION

1.1 Unpacking

Carefully remove all components from the packaging. Inspect for any damage that may have occurred during transit. Keep all packaging materials for future transport or storage.

1.2 Component Identification

Familiarize yourself with the main components of both the 3D printer and the wash & cure station:

- **ELEGOO Saturn 3 Ultra 3D Printer:** Printer base, resin vat, build plate, cover, power adapter, USB drive, tools.
- **ELEGOO Mercury X Wash & Cure Station:** Base unit, washing bucket, curing platform, power adapter.

1.3 Printer Assembly

Place the printer on a stable, level surface. Ensure adequate ventilation in the operating area.

1. **Install Build Plate:** Attach the build plate to the Z-axis arm and tighten the securing knob.
2. **Leveling:** Loosen the screws on the build plate. Lower the build plate until it touches the LCD screen. Tighten the screws. This ensures proper adhesion for prints.
3. **Install Resin Vat:** Place the resin vat onto the LCD screen and secure it with the side clamps.



Image: The ELEGOO Saturn 3 Ultra 3D Printer shown next to a large, detailed 3D printed model, illustrating its printing capabilities.

1.4 Wash and Cure Station Setup

Place the Mercury X station on a stable surface. Connect the power adapter. The station is ready for use once powered on.

2. OPERATION GUIDE

2.1 ELEGOO Saturn 3 Ultra 3D Printer

2.1.1 Preparing for Print

1. **Resin Pouring:** Carefully pour the desired resin into the resin vat, ensuring it does not exceed the maximum fill line.
2. **File Transfer:** Transfer your sliced 3D model file (.STL format) to the printer via USB drive or Wi-Fi. The printer supports 2.4G and 5G networks for convenient file transfer at 6-10Mbps.

CONVENIENT WI-FI TRANSFER



6-10Mbps
transfer speeds



2.4G and 5G
networks compatible



Image: A user is shown transferring a 3D model file wirelessly from a laptop to the ELEGOO Saturn 3 Ultra 3D Printer, highlighting the convenient Wi-Fi transfer feature.

2.1.2 Starting a Print

Select your model file from the printer's touchscreen interface and initiate the print. Monitor the initial layers to ensure proper adhesion.

2.1.3 Post-Printing

Once the print is complete, carefully remove the build plate. Use the provided scraper to detach the printed model. Clean any excess resin from the build plate before proceeding to washing.

2.2 ELEGOO Mercury X Wash and Cure Station

2.2.1 Washing Procedure

1. **Fill Bucket:** Fill the washing bucket with appropriate cleaning solution (e.g., isopropyl alcohol).
2. **Place Print:** Place the printed model into the washing basket or attach the build plate directly to the washing platform.
3. **Start Wash:** Select the wash function and set the desired time. The station will agitate the solution to clean

the model.



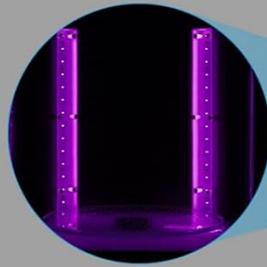
Image: The ELEGOO Mercury X Wash Station is shown with a 3D printed model submerged in cleaning solution, indicating the washing process.

2.2.2 Curing Procedure

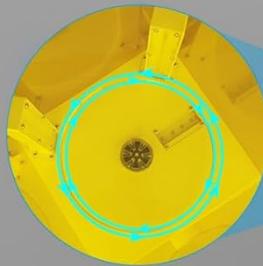
1. **Dry Model:** Ensure the washed model is dry before curing.
2. **Place on Platform:** Place the model on the rotating curing platform.
3. **Start Cure:** Select the cure function and set the desired time. The UV lamps will harden the resin model evenly with 360° timed exposure.

Faster and Evenly Cure

4 pcs UV lamp under the plate bottom, improve the quality of models and save the cure time, Coverage with 360° timed exposure



405nm(14PCS)+405nm(14PCS)+405nm(4PCS)
UV curing lamp beads to cure the model fast



Rotatable curing platform
360° rotating under UV light to completely curing

Model by Loot Studios



Image: The ELEGOO Mercury X Cure Station is shown with a 3D printed model on its rotating platform, illuminated by UV lights for post-curing.

3. MAINTENANCE

3.1 Printer Maintenance

- **Resin Vat Cleaning:** After each print, filter unused resin back into its bottle. Clean the resin vat and FEP film with a soft cloth and isopropyl alcohol.
- **Build Plate Cleaning:** Clean the build plate with isopropyl alcohol after each use.
- **LCD Screen:** Keep the LCD screen clean and free of resin spills. Use a soft, lint-free cloth for cleaning.

3.2 Wash and Cure Station Maintenance

- **Cleaning Solution:** Replace the cleaning solution in the washing bucket regularly, especially when it becomes cloudy or heavily contaminated.
- **Station Cleaning:** Wipe down the exterior of the station with a damp cloth to remove any resin residue.

4. TROUBLESHOOTING

This section addresses common issues you might encounter:

- **Print Not Sticking to Build Plate:** Ensure the build plate is properly leveled. Increase bottom exposure time in your slicer settings. Check ambient temperature.
- **Failed Prints/Partial Prints:** Verify resin settings (exposure time, lift speed). Check FEP film for damage or cloudiness. Ensure resin is well-mixed.
- **Connectivity Issues (Wi-Fi):** Confirm the printer is connected to a compatible 2.4G or 5G network. Check network signal strength.
- **Wash Station Not Agitating:** Ensure the washing bucket is correctly seated and the power is connected.
- **Curing Lamps Not Activating:** Check power connection. Ensure the cover is properly closed (if applicable for safety interlock).

5. TECHNICAL SPECIFICATIONS

Feature	Specification
Brand	ELEGOO
Product Dimensions (Printer)	20 x 10 x 10 inches (20"D x 10"W x 10"H)
Material	Resin
Compatible Devices	Laptop, Smartphone
Supported File Format	STL
Manufacturer	ELEGOO
First Available	September 18, 2023

10-INCH **12K** MONO LCD

Incredible Clarity and Precision

11520x5120
resolution

19x24 μ m
XY resolution



Image: A graphic detailing the ELEGOO Saturn 3 Ultra's 10-inch 12K Mono LCD with 11520x5120 resolution and 19x24 μ m XY resolution, emphasizing incredible clarity and precision.

INCREASE YOUR PRODUCTIVITY

218.88x122.88x260 mm³/8.62x4.84x10.24 inches

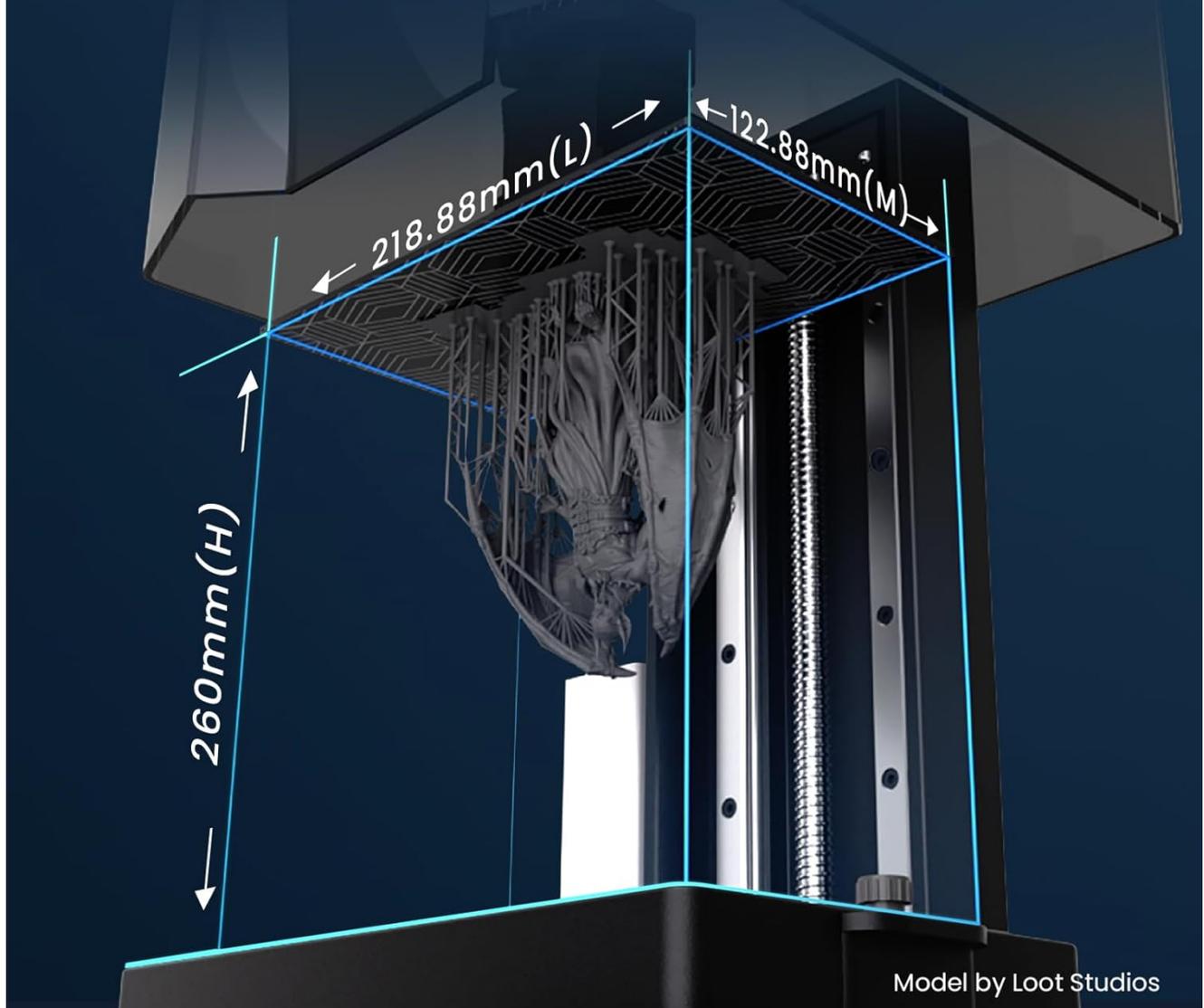


Image: A diagram illustrating the build volume of the ELEGOO Saturn 3 Ultra, showing dimensions of 218.88mm (L) x 122.88mm (M) x 260mm (H), or 8.62x4.84x10.24 inches.

STABLE FILE TRANSFER & FASTER RUNNING SPEED

Brand new Linux OS with 4G RAM

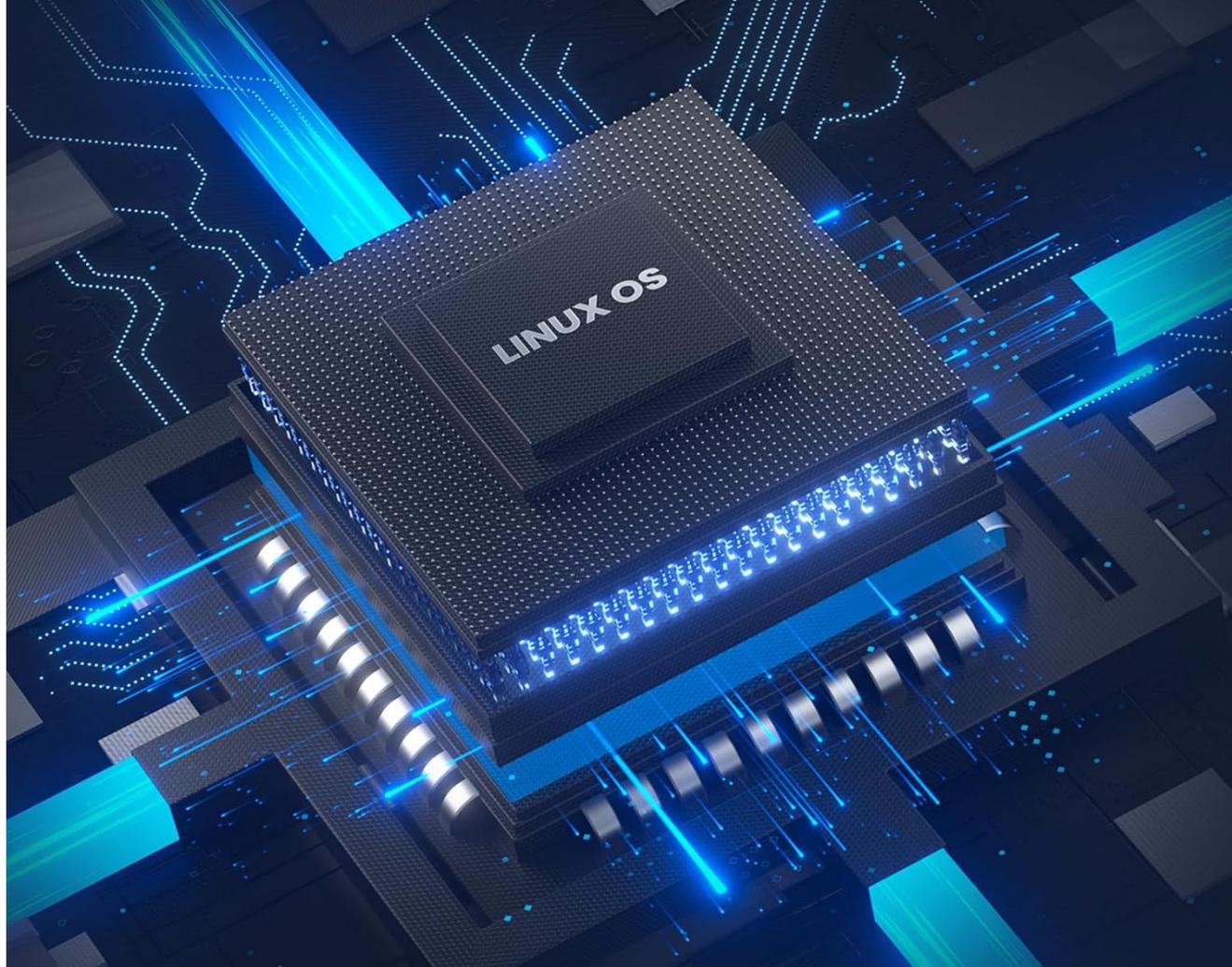


Image: A close-up of a circuit board with a chip labeled 'Linux OS' and '4G RAM', representing the stable file transfer and faster running speed of the ELEGOO Saturn 3 Ultra.

6. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the official ELEGOO website or contact ELEGOO customer service directly. Keep your purchase receipt as proof of purchase.