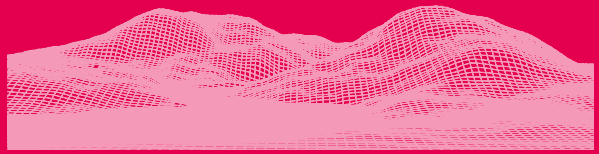
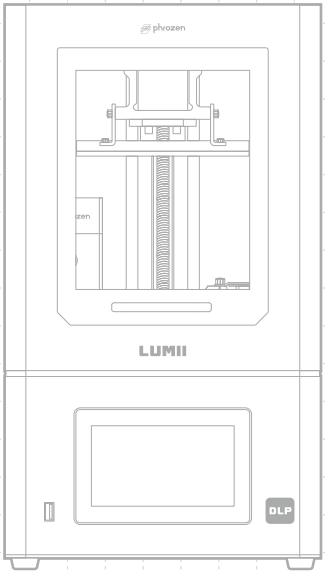
phrozen

DLP



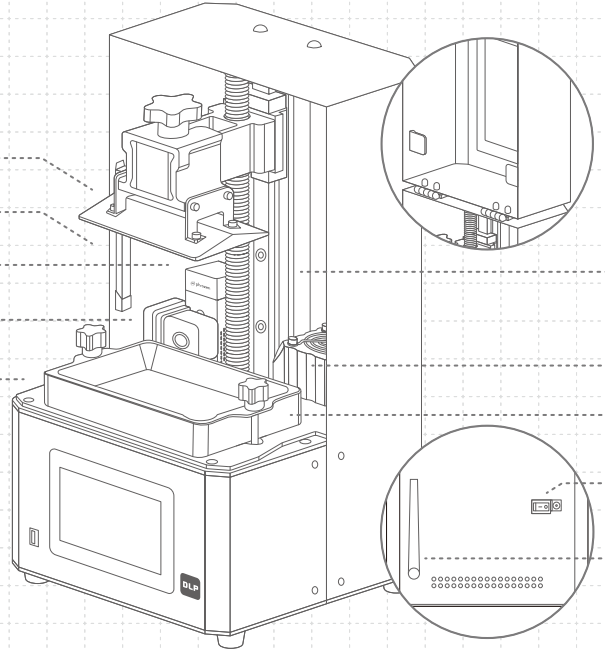
Dear User,

Thank you for purchasing the Lumii DLP. In order to ensure the optimal printing experience, please follow the step-by-step instructions provided in the manual below.



01 Introduction

Printer Parts



PART.1
Building Plate

PART.2
Adjustable Interior Light

PART.3
Air Purifier

PART.4
Camera

PART.5
nFEP Film

PART.6
Touch Panel

PART.7
Front USB Port

PART.8
Lift-up Lid

PART.9
Z-axis

PART.10
Heater

PART.11
Resin Vat

PART.12
Power Switch
Power Socket

PART.13
Wi-Fi Antenna

The Toolbox

After Sales Service Card

Gloves

Power Cord & Adapter

Plastic Funnel

Scrapers

Allen Wrench

USB

DS Slicer Dongle

Handle

Wi-Fi Antenna

Operation

System	Phrozen OS
Operation	5 inch Touch Panel
Slicer Software	Phrozen DS Slicer, VoxelDance Tango (Others)
Connectivity	USB | Wi-Fi
Built-in Memory	2GB

Printing Specifications

Technology	DLP (Digital Light Processing)
Light Source	DLP optical projector
Z Resolution	10 μm
XY Resolution	51 μm
Layer Thickness	0.01-0.30 mm
Printing Speed	Up to 90 mm / hr
Compatible File Format	.PRZ
System Power	Max 96W
Power Requirement	DC 12V ⎓ 8A

Hardware Specifications

Printer Size	23.7 x 23.7 x 42.3 cm
Printing Volume	13 x 7.3 x 16 cm
Printer Weight	11.8 kg

* All specifications have been tested in a laboratory. Please note that certain specifications may be subject to change without prior notice.

02 Interface Introduction

Lumii DLP is equipped with a new interface and enhanced functionalities.
After turning on the printer, you can access the toolbar on the left side to adjust any relevant settings.

Print

Begin printing by selecting the file inside the printer or USB, or the history section to locate your file.

Tools

- Z-axis control
- Vat cleaning
- Heater
- Light Intensity
- Light switch

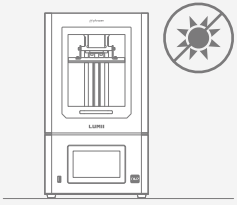
Setting

To adjust system settings such as language, network connection, remote control, etc.

Info

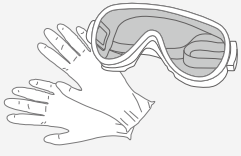
To access other related information.

03 Key Notes Before Start



Stable Printing Environment

Place your 3D printer in a dry and ventilated environment. Avoid exposure to direct sunlight. Make sure to place the printer on a flat surface.



Protective Measures

While printing and using resin, please make sure to wear gloves, masks, protective goggles, and long-sleeved clothing.

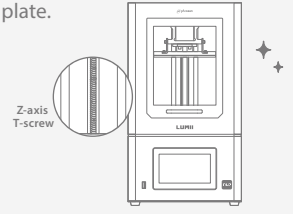
Maintenance

Clean the Z-axis

First, dry clean the Z-axis T-screw. Then apply a thin layer of general lubricant on it, so that it whirls smoothly.

Clean the 3D Printer

Use sanitizing alcohol and tissue paper to carefully clean the printer, the resin vat, and the building plate.

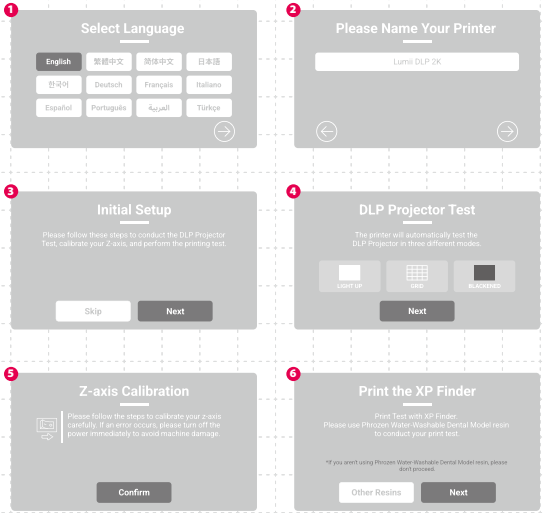


04 Initial Startup Procedures

When turning on your 3D printer for the first time, please follow the on-screen instructions on the touch panel to complete the initial tests, including the DLP projector test, z-axis calibration, and first test print.

1. Select the language.
2. Insert a name for your printer.
3. Click on " NEXT " to continue the initial startup procedure.
4. Complete the initial DLP Projector Test.
5. Complete the initial Z-axis Calibration.
6. Complete the first test printing. The system provides a pre-sliced **XP Finder test file** using the optimal parameters for **Phrozen Dental Water-Washable Resin**.

* If you use other resin material, please follow section 07 and section 08 to prepare your files and conduct a printing test.



05 DLP Projector Test

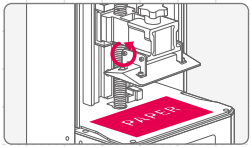
1. Head to the " Settings " menu. Click on " Hardware Testing " and select the " DLP Projector Test. "
2. Below are three DLP Projector tests that need to be conducted.

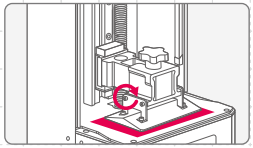
3. Place a sheet of blank white paper on top of the glass screen, then click each test to see if the DLP Projector displays the same image as seen on the touch panel.
4. When the projector displays all 3 images clearly, the DLP Projector test is complete.

* Please refer to the actual printer operation based on the touchscreen display.

06 Z-axis Calibration

1. Click on TOOLS. Then click on Z-axis calibration.
2. Remove the resin vat and place 1 piece of A4 paper on the glass screen.
3. Install the building plate and tighten the thumb screw. Loosen all 4 calibration screws on the building plate.
4. Click on NEXT. Wait until the building plate touches the glass screen.
5. Tighten all 4 calibration screws. Make sure the paper is unmovable, then click DONE to finish the calibration.
6. Wait until the building plate retracts to the top. Z-axis Calibration is now complete.





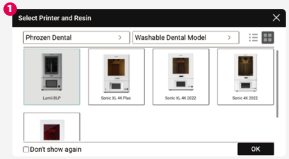
07 Prepare Your 3D Files With DS Slicer

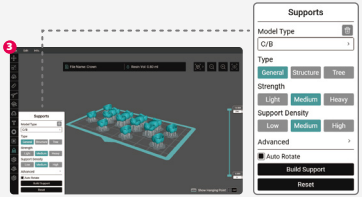
Lumii DLP only supports .PRZ file format. Use Phrozen DS Slicer software to turn your .STL files into .PRZ files.

Prepare files with Phrozen DS Slicer

1. Choose " Lumii DLP " printer and select the resin parameters according to the resin used.
2. Import your STL files into Phrozen DS Slicer software.
3. DS Slicer provides auto support and orientation functions for preparing various dental indications. Go to " **Support Menu**." Select the indication you intend to print, then choose the **type**, **density**, and **strength** for your support, and turn on the " **Auto Rotate** " function.
4. Once the objects are ready to be printed, slice the object by clicking the " **Single para slice** " button located in the bottom right corner.
5. Import your 3D files:
   - Save the sliced .PRZ file into your USB drive.
   - Plug in the USB drive into the 3D printer.
   - Head to " Print " > Click on " USB " > Select your file > Wait for upload.

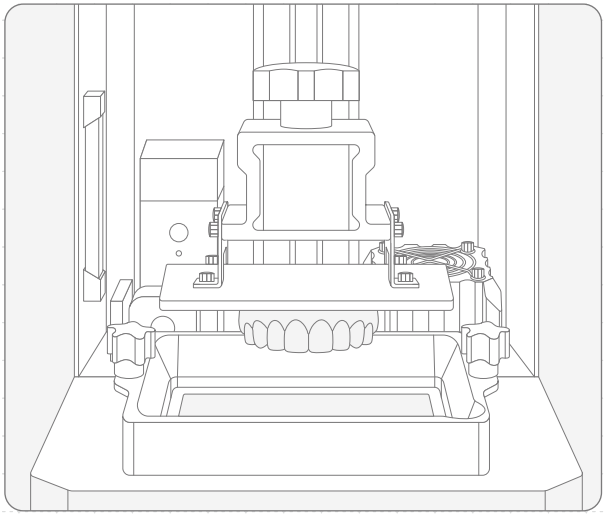
Download DS Slicer





08 Perform Printing Test

1. Install the building plate and resin vat. Make sure that both are parallel to the printer and its surface is clean.
2. Shake the resin bottle for 1 minute. When pouring, make sure the resin does not exceed the mark on the resin vat.
3. The building plate will go down automatically and begin printing.
4. After the printing process begins, the Air Filtration System will turn on automatically.
   (Make sure to first insert the Air Purifier unit)
5. Keep the cover closed during printing to avoid excessive UV light.
6. After the printing process is complete, remove the building plate from the printer. Tilt and place it onto a desk and use a metal scraper to carefully remove your print.



FCC Warning

15.19 Labeling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

15.21 Information to user.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

FCC RF Radiation Exposure Statement:

1.This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

2.This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

IC Warning

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:
(1)This device may not cause interference;
(2)This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1)l'appareil ne doit pas produire de brouillage, et
(2)l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The information listed above provides the user with information needed to make him or her aware of a RF exposure, and what to do to assure that this radio operates within the FCC exposure limits of this radio.

The device complies with RF specifications when the device used at 20cm from the body.Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

This radio transmitter [ISED certification number:31284-LUMIIDLP] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Antenna Type	Antenna gain(dBi)	Impedance
Dipole	0	50Ω

After-sales service & warranty

- Phrozen offers a one-year warranty for all parts, excluding consumable components such as the DLP projector, building plate, and Resin Vat.
- Lumii DLP Projector is covered under a 12 month warranty. Please note that this warranty does not cover any damage caused by human factors.
- If you encounter any difficulties, please scan the QR codes down below to contact us.

Contact us !

Congratulations!

You have just completed your first run.
We hope you've had a great experience!

Please follow us on social media and subscribe to our YouTube channel to learn more dental 3D printing tips from us.

Facebook

Facebook Group

Instagram

Phrozen Dental Official Website

YouTube