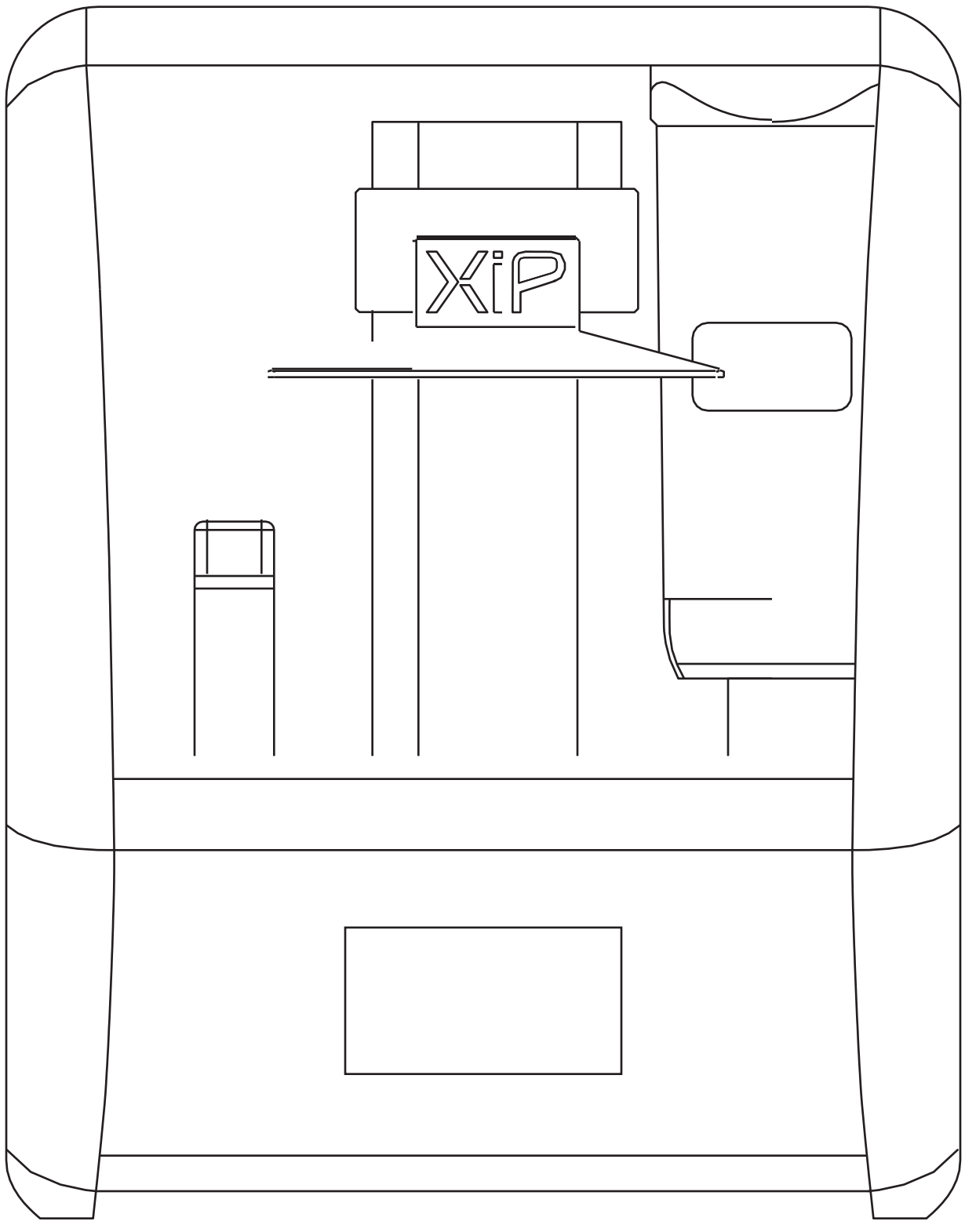
XiP™ | User Guide



nexa3D

Installation and Usage Instructions

LSPc™ Photo polymerizing 3D Printer

LSPc™ Photo polymerizing 3D Printer

For Support: nexa3d.com/support or support@nexa3d.com

English Language Instructions.

Read this manual carefully.

June 2022

Version 1.0

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1. Welcome to your XiP 3D Desktop Printer

Congratulations on the purchase of your new XiP ultrafast desktop 3D printer! We're sure you're excited to get started with your new equipment but it is important to read this guide carefully for a safe and seamless experience.

We'll show you how to unpack your printer and run through your first print from beginning to end. We will also discuss important safety precautions and point you to key resources to continue your learning.

If you need any further help, our team is always on hand. You can reach out to support@nexa3d.com or call 805.465.9001. Further instructions are also on our website: nexa3d.com/support

We can't wait to start this game-changing journey together.

Enjoy!

— The XiP team

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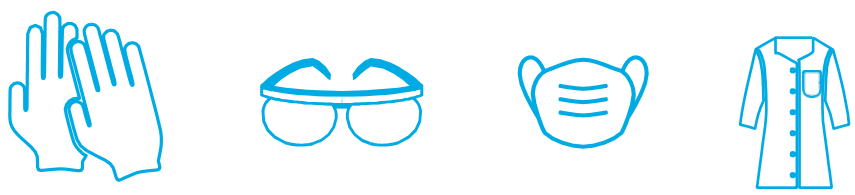
2. Safety Alerts

DANGER

Read and understand this manual and safety alerts prior to using the XiP printer from Nexa3D. Failure to do so can result in serious injury or death.

CAUTION

Use appropriate protective equipment when handling resin and solvents, including cut & abrasion resistant gloves, safety goggles, smock, and vapor respirator if recommended by SDS of resin or solvent.



CAUTION

The light engine used in LSPc emits 405nm visible light, which lies adjacent to the UVA band, UVA can damage eyes with prolonged exposure. Use protective glasses rated for 99.9% UVA protection when working around the light engine or post-cure equipment with covers removed.

CAUTION

Moving parts. Keep body parts away from moving parts.

CAUTION

Only Nexa3D approved resins, membranes, and accessories (filters, resin system, etc.) should be used with XiP to prevent risk of spill, equipment damage, or injury.

WARNING

It is the user's responsibility to verify suitability of material and process for application requirements. In no case shall Nexa3D be liable for loss, death, or injury caused by products produced on Nexa3D printers or with Nexa3D materials. Nexa3D expressly disclaims any implied or explicit warranty of fitness for any particular usage.

WARNING

Immediately clean spilled resin from the printer, or it may cure and cause surface damage when removed. Surfaces may be cleaned with IPA or xClean.

NOTE

Resin Storage: Resin polymerizes when exposed to UV light sources, including sunlight. Store resin in original containers and in a cool, dark location away from sunlight.

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3. Getting to Know XiP

XiP provides industrial strength 3D printing in a desktop size. XiP is powered by our patented Lubricant Sublayer Photo-curing (LSPc) technology to accurately print at high speeds.

3.1 Technical Specifications

Printing	
Print Technology	Lubricant Sublayer Photo-curing (LSPc) Technology
Build Volume	X 195 mm (7.7 in) Y 115 mm (4.5 in) Z 210 mm (8.3 in) 4.8 liter print volume
Layer Thickness	0.050 mm / 0.100 mm / 0.200 mm .002 in / .004 in / .008 in
Material Compatibility	Various resins - Henkel, Keystone, BASF, Nexa3D inhouse
Light Source	Collimated LED array
High Resolution LCD	9.3" Monochrome 4K Resolution 52 µm pixel pitch
Resin Fill	Smart Resin Gravity Dispense
Input File Format	.nxa

Software	
Software Bundle	NexaX Basic for XiP or NexaX Pro for XiP
Supported File Types	.stl, .obj, .nxs

Environment	
Operating Environment	Indoor use only
Ambient Temperature	20-27˚C / 70-80˚F
Relative Humidity	10% - 70% non-condensing

Electricity	
Power Requirements	100-240Vac, 50/60Hz
Connectivity	Wi-Fi, USB, Ethernet

Physical Dimensions	
Printer Weight	65 pounds
Printer Dimensions	420 mm (16.5") Wide x 350 mm (14") Deep x 530 mm (21") High

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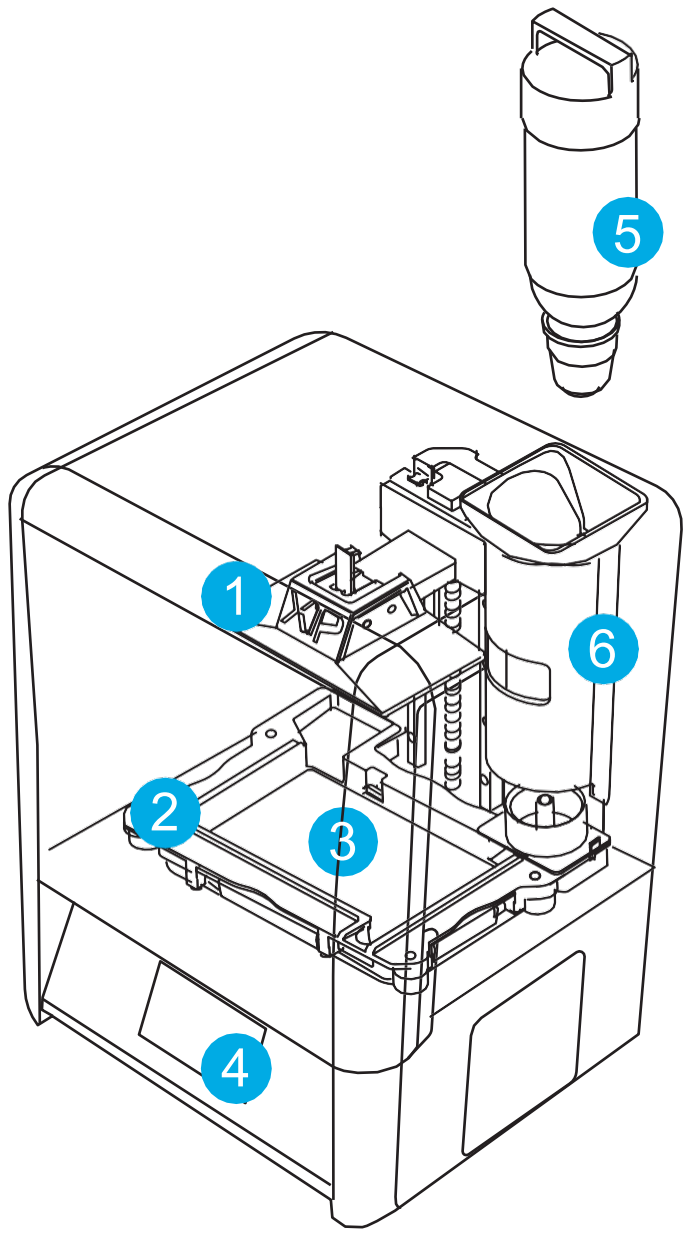
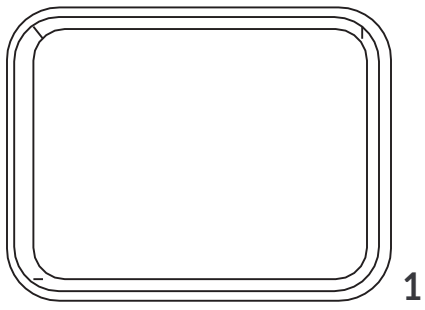
3.2 XiP Components

XiP is modular in design for interchangeable parts and easy upgrades.



1. Build Plate
2. Resin Vat with Spout
3. LCD Module
4. Touchscreen
5. Resin Cartridge
6. Resin Cartridge Chute

Accessory tool kit provided with the printer: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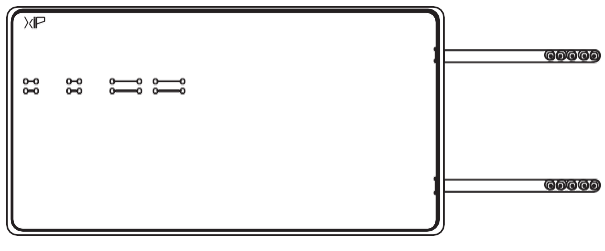
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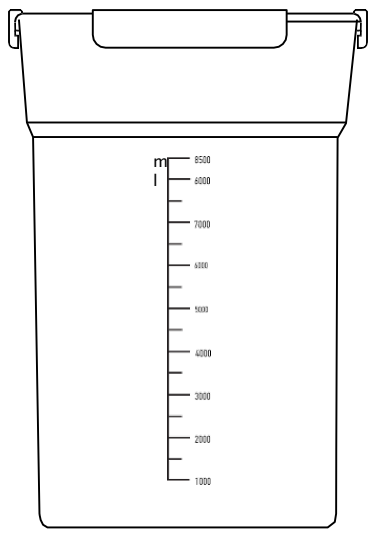
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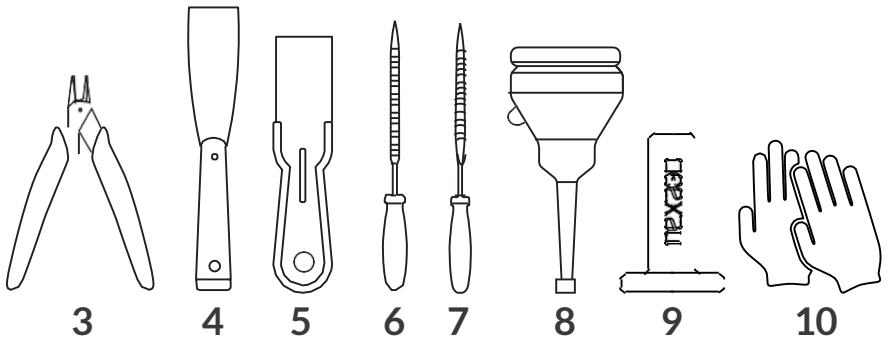
3 4 5 6 7 8 9 10

1. Tray
2. Rolled Mat
3. Snips
4. Scraper
5. Spatula
6. Metal File, flat
7. Metal File, half-round
8. Funnel
9. Cleaning tool
10. Gloves
11. Wash Container with basket

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3.3 The Touchscreen User Interface

The interactive touchscreen makes it easy to manage your printer and the printing process.

The touchscreen displays Print information, Settings, and error messages.

The ***Print*** screen, available by selecting the stack of layers icon, lets you select a print job from:

Queue: The XiP job queue.

History: A history of the jobs you've printed in the past.

USB: A job loaded on a USB key.

Once a print is started, the screen displays the progress of the print.

The ***Settings*** screen, available by selecting the gear icon, contains:

Printer Status: Check the type of resin in the cartridge, the life of the membrane and approximately how many layers remain, and the status of the resin vat. If the resin vat is locked, you can tap the Resin Vat icon to unlock the magnetic clamps.

Connection: Configure or disconnect Wi-Fi and Ethernet connections.

Maintenance: System processes to help you level the build plate or clean the resin vat.

System: Reboot your printer, update your printer's firmware, register your printer, repeat the initial onboarding process, and learn more about your printer (serial number, version) and how to contact support.

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4. Workspace Preparation and Initial Setup

Learn how to prepare your workspace, unpack your printer and get it ready to print.

4.1 Prepare the Workspace

The placement of your XiP printer is important for optimal performance for 3D printing. XiP external dimensions are 16.5 in (420 mm) wide x 14 in (350 mm) deep x 21 in (530 mm) high, and it weighs 65 lb (29.5kg).

Make sure you have enough space when choosing a stable location for XiP. Allow a minimum of 6 in (~150 mm) at the side and back of the printer. This allows space for the power & network cables, proper ventilation, and access to the power switch. Choose an indoor location where the ambient temperature is in the range of 70-80° F (20-27°C).

For optimal 3D printing, follow these guidelines to prepare your workspace before installing your printer.

- Dry, well-ventilated, and dust-free workspace.
- Minimal ambient UV light to prevent unintended curing of resin. Fluorescent or LED lighting is preferred. Windows should have UV blocking film.
- Stable, level worktable that can hold up to 100 pounds. There should be 6” of space around the printer to allow for proper airflow, to access ports, and prevent any electrical interference between printers if there are multiple units.
- XiP is designed to be used indoors within ambient temperatures ranging 70-80˚F (20-27˚C) and relative humidity ranging 10% - 70%. Working outside those limits may result in low quality performance.
- Conventional grounded power outlet. A surge protector is recommended.
- Have on hand personal Protective Equipment (PPE): nitrile gloves, safety goggles or glasses, and lab coat.
- Dedicated waste storage for resin-contaminated wipes & gloves. This may not be a hazardous waste in your jurisdiction. Nexa3D recommends treating it as chemical waste.
- Waste storage for used solvents. Most jurisdictions consider the solvents typically used during post-processing as hazardous waste. Storing in labeled UN or DOT-certified containers is recommended.
- Flooring should be washable and watertight in case of spills or drips.
- Any dust-generating activities should be physically separated from printing area. (sanding supports, etc.)

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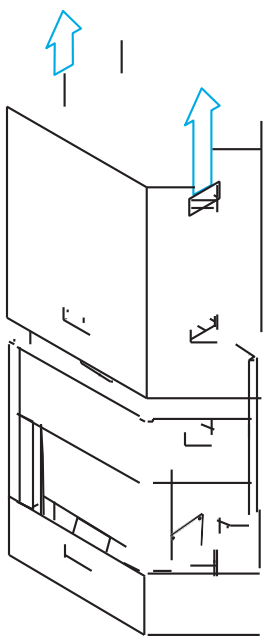
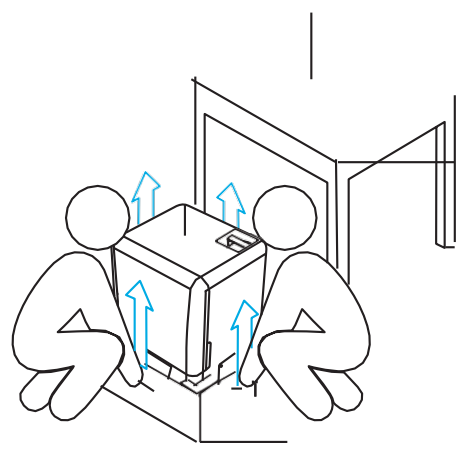
4.2 Take the Printer out of the Box

During unboxing, inspect the XiP for any damage or missing items. In the case of damage or missing items, contact Nexa3D or the certified service provider.



1. Unpacking instructions are provided on the top of the box. Follow the instructions to lift the top portion of the box off the printer and remove the packing material from around the printer.



2. Have two people one on each side, lift the printer from the base and put it on a stable flat surface that can support at least 100 pounds.

CAUTION

The XiP 3D printer is a heavy object. A two-person lift is required to prevent injury and avoid damage to the machine.

NOTE

Save the printer's **Original** packaging. It is required for warranty service and designed to be kept and reused for transportation or shipping.

4.3 Level the Printer

The printer must be completely level to achieve optimum 3D print accuracy and performance.

1. Once the printer is safely set on a stable work surface, open the printer door and place a bubble level (or other available leveling tool) on the LCD.
2. Turn leveling feet to adjust incrementally until the bubble reads level. The four leveling feet are recessed into the base of the side panels.

4.4 Connect the Cables

Cable connections are located at the rear of the printer. These include a power connection and LAN port.

Connect the power cable to the back of the printer. Connect the power cord to an electrical outlet. Once power is connected, the printer will boot up and the interior light will turn on after 5 seconds. The touchscreen will show boot progress after a delay of 10-20 seconds.

Optional:
Ethernet Cable: Plug one end of a network (Ethernet) cable into the Ethernet port and the other end directly into your LAN port.

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5. Onboarding and First Print

The first time you power on XiP, a Welcome screen will guide you through the setup process.

5.1 Register and Activate Your Printer

You need to register the printer before you can operate it. Your machine does not need to be connected to a network, but you will need a network-connected device on hand (smartphone, laptop, etc.) to fill out the online registration.

Registering starts the warranty on your machine and it provides us with a contact and location for the machine, which is important for warranty service. To register:

1. Tap **Get Started** on the welcome screen.
2. Use your phone to scan the QR code on the printer's touchscreen. If you cannot scan the QR code, skip to Step 5.
3. The scanned QR code will bring you to the printer registration form with the printer serial and registration code filled in. Enter the remaining information on the registration form and click **Submit**. Once the form has been submitted, you will receive a 4-digit Printer PIN to enter onto your XiP printer.
4. Return to your printer's touchscreen and tap Continue. Enter the 4-digit Printer PIN from the registration form into the touchscreen number pad to complete the registration process.
5. If you're unable to scan the QR code, tap the **Can't Scan the QR Code** option on the printer's touchscreen. Use your computer or mobile device to navigate to nexa3d.com/xip-registration
6. Complete the registration form using the printer's serial number and unique registration code generated on the printer's touchscreen. Upon submission of the registration form, you will receive your 4-digit Printer PIN.
7. Return to your printer's touchscreen, tap **I Have Received the Printer PIN** and enter the 4-digit pin on the number pad to complete the registration process.

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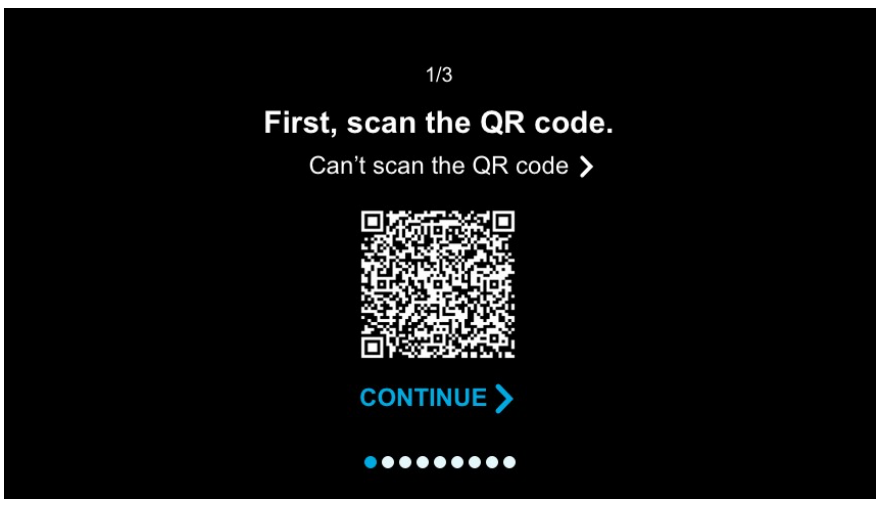

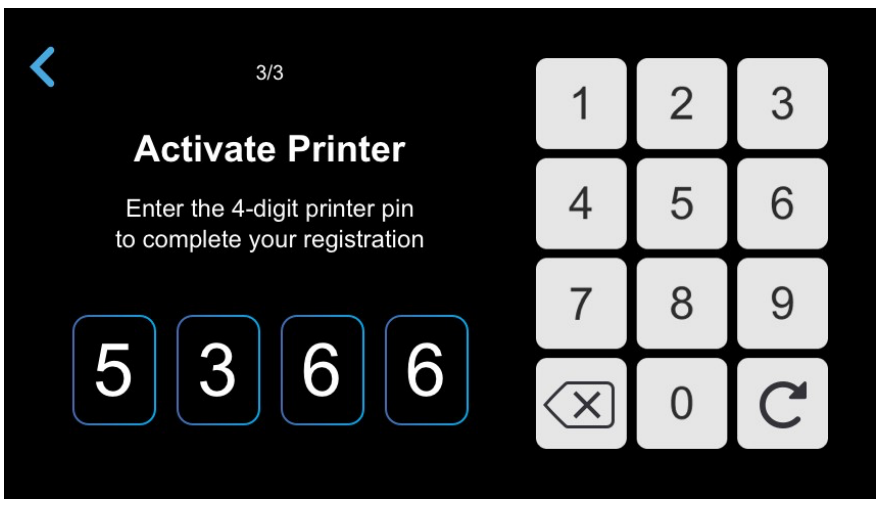

The registration form asks for several pieces of information:

- **Contact Info:** Needed to get in touch with you if there are any urgent updates or recalls.
- **Location Info:** Needed to ship parts or replacements in the event of warranty service.
- **Printer Serial Number:** Ties the registration to a specific unit. Found on the product label in the lower back left side of the XiP.
- **Registration Code:** The unique registration code generated on the printer's touchscreen if unable to scan the QR code.

5.2 Connect to Wi-Fi

1. Tap Continue to use XiP's built-in Wi-Fi to connect to your network.
   Otherwise, tap **Skip** if you will use a direct USB cable or Ethernet connection.
3. Choose the name of the network you want to connect to, enter the network's password and tap **Join**.
4. Tap **Continue** after your connection is confirmed.

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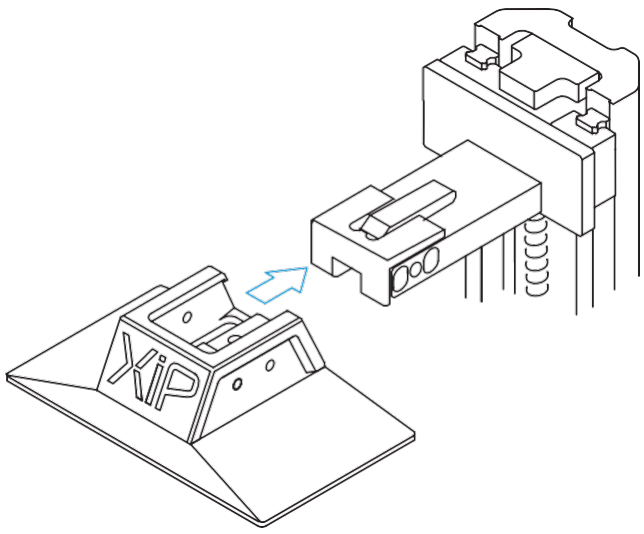
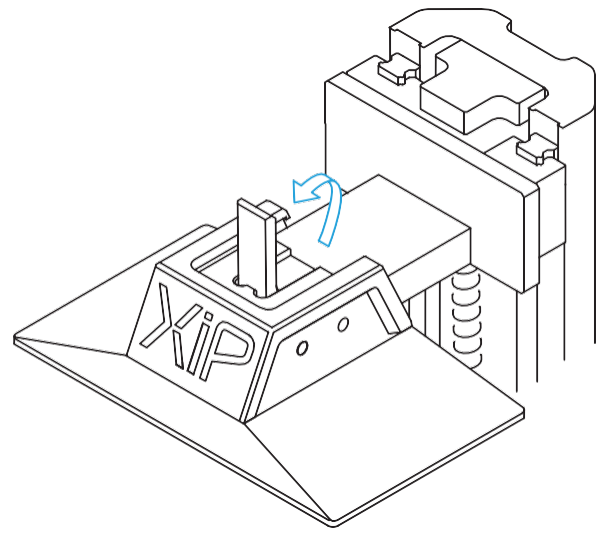
5.3 Install the Build Plate

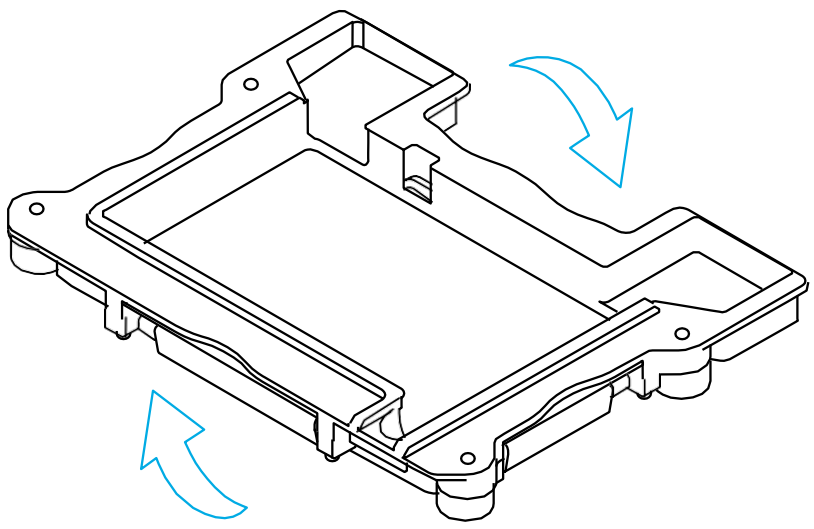
Open the printer door, slide the build plate onto the Z-axis platform, then lift the lever to lock the plate in position.



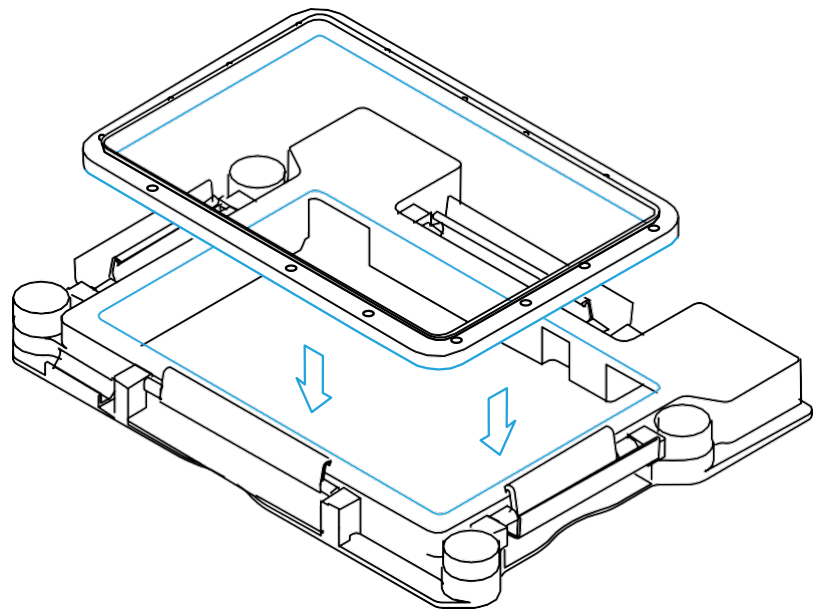


5.4 Install the Resin Vat

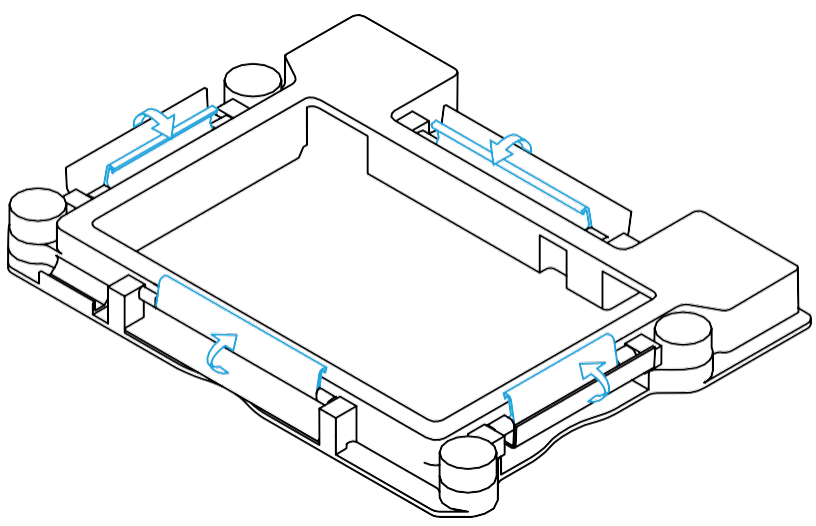
1. Flip vat frame upside down and lay on the work surface.

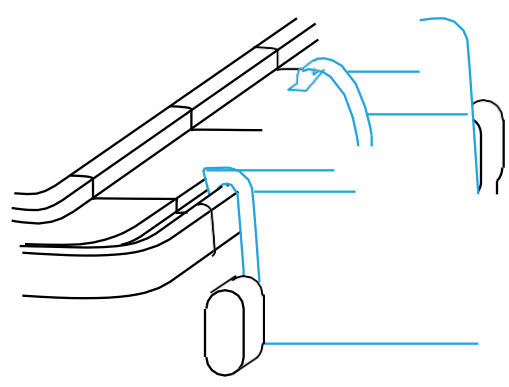


2. Place membrane on the bottom of the vat with the gasket facing downward.



3. Once membrane is in place, flip up the four inner clamps and rest the edge of each inside the groove.





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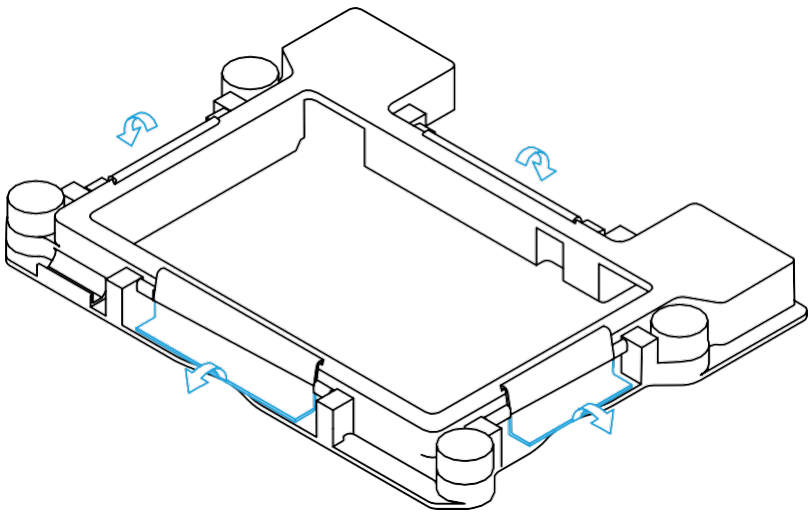
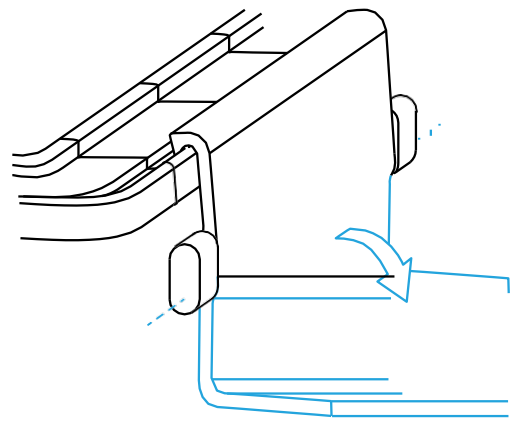
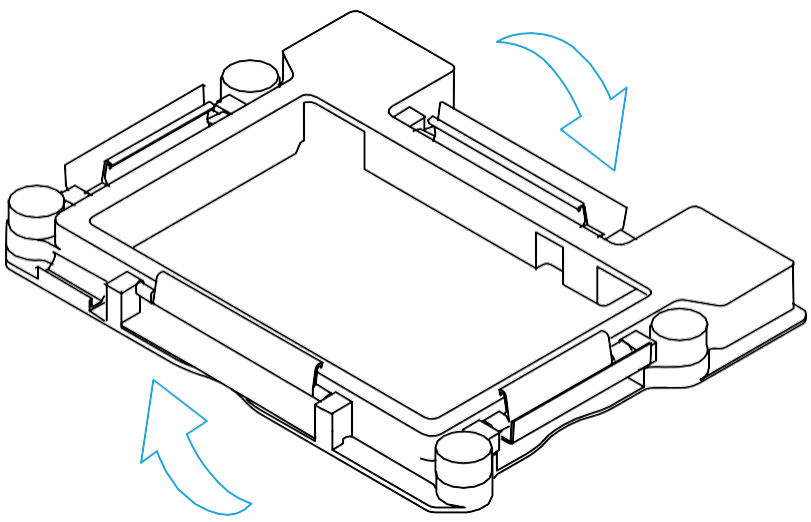
4. Carefully pull all four outer clamps downward, ensuring that the inner clamps continue to rest within the gasket groove.



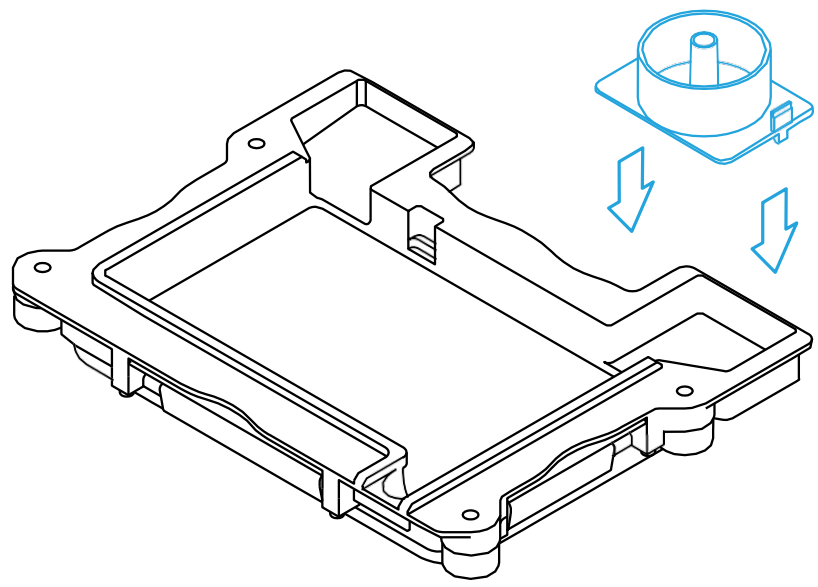


Push outer clamps all the way down to secure the membrane to the vat frame.

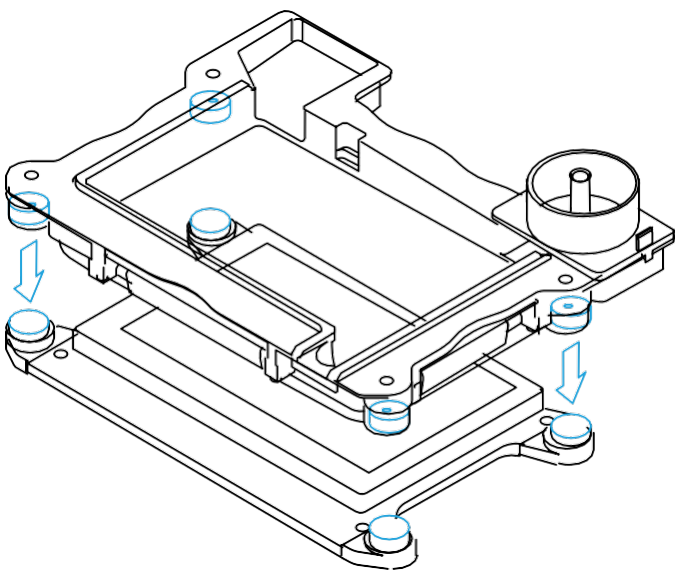
5. Flip vat right-side up.

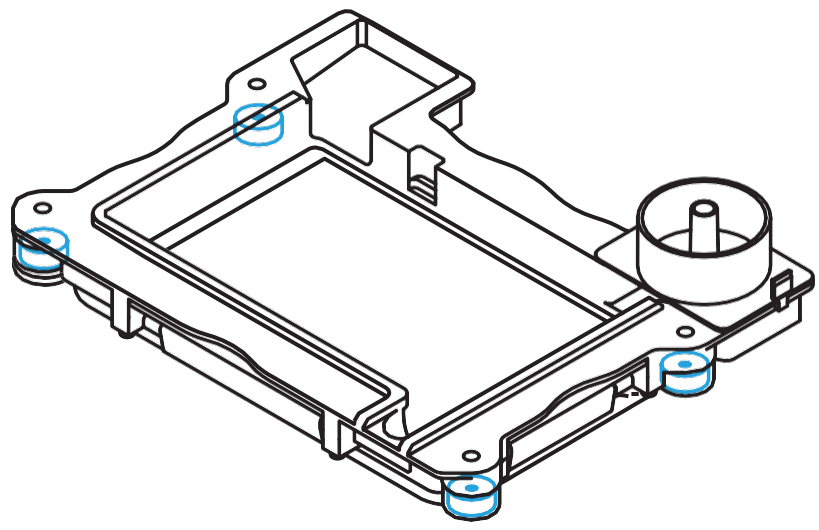


6. Place the Resin Spout on the back right hand corner of the vat and press down to snap on and attach.



7. Lower the Resin Vat Assembly onto the LCD. Magnetic clamps lock it in place automatically. The printer will confirm that the vat is locked.





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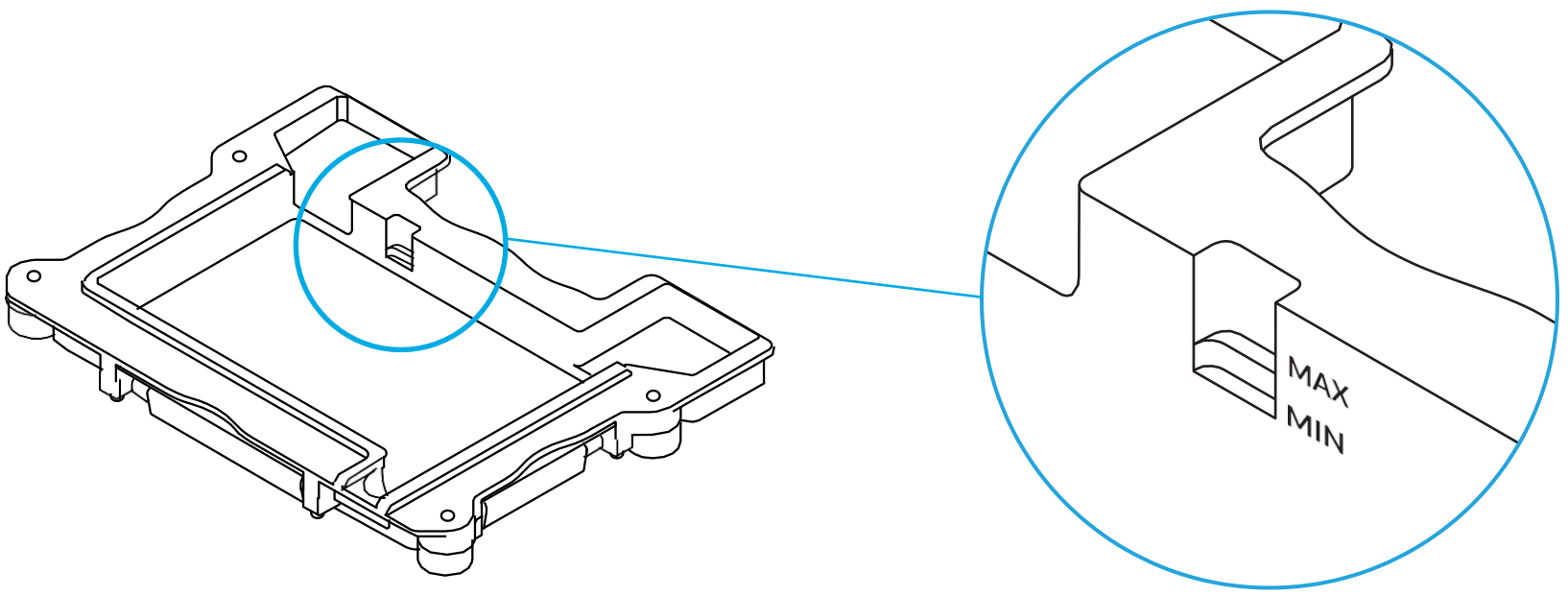
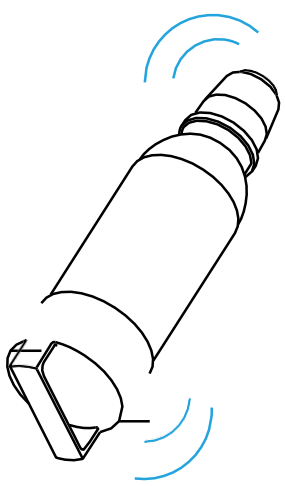
If using a material that cannot use the automatic resin dispense system, be aware of the fill level notches in the back left hand corner of the resin vat. The max fill line is the second notch from the bottom.



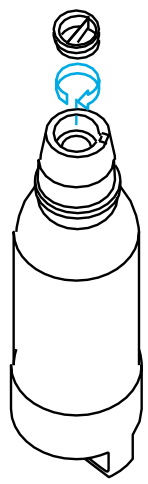
Make sure not to fill over the second notch, otherwise there is a risk for resin spill.

5.5 Install the Resin Cartridge

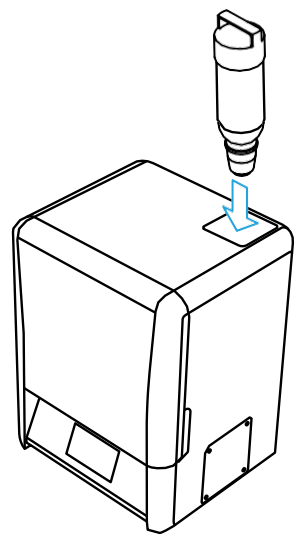
1. Shake the Resin cartridge for 30 seconds to mix, then tap **Continue** on the touch screen.



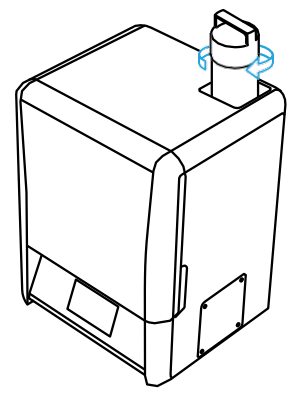
2. Remove the seal cap of the resin cartridge by unscrewing the top.



3. Invert the cartridge and fully insert for dispense, rotate cartridge until it drops in place and sits flush with printer top.



4. The cartridge can rest in the hanging position to allow for vat clearance during removal and replacement.



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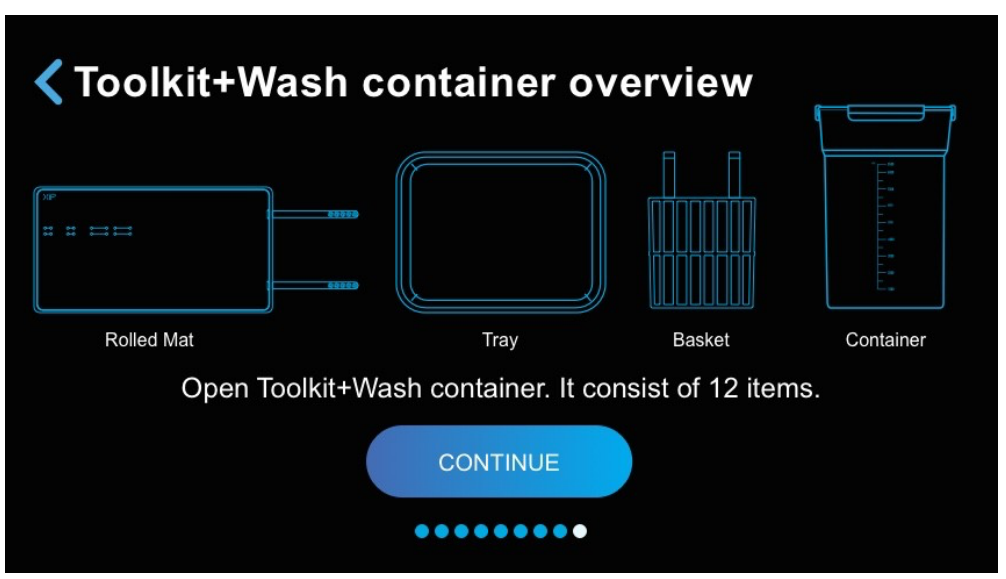
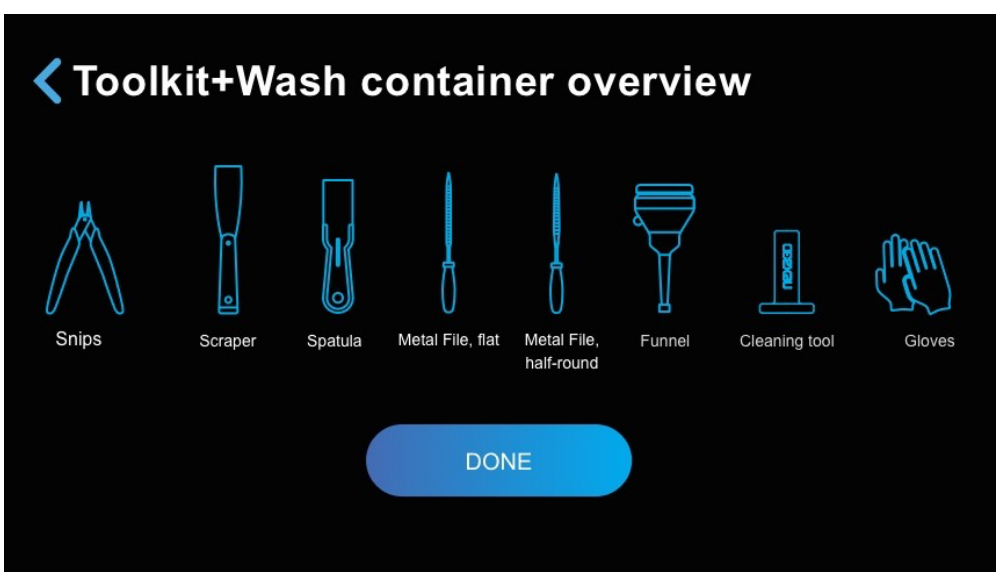
5.6 Open the Finish Tool Kit

The Finish Tool Kit includes tools to help with post processing of your printed parts.

1. Open the box labeled Toolkit+Wash container and tap **Continue**.
2. Ensure that the Rolled Mat, Tray, Basket, and Wash Container are accounted for, then tap **Continue**.
3. Ensure that the remaining small tools are accounted for, and tap **Done**.

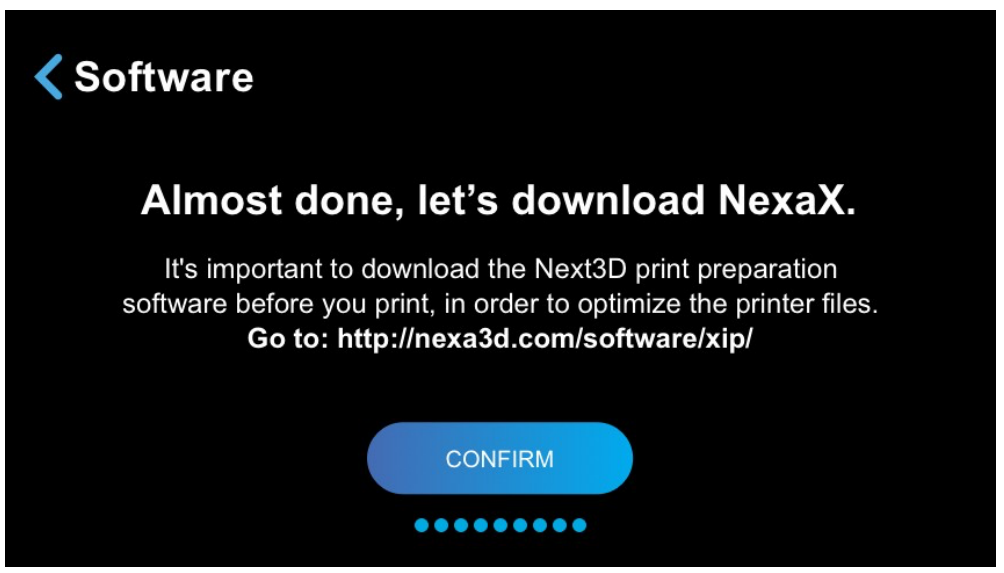




Note: If you find you're missing any listed tools from your kit, please reach out to our support team at support@nexa3d.com or submit a ticket on our support site support.nexa3d.com

5.7 Install NexaX 3D Print Software

1. Use your computer to navigate to the link displayed on the screen (nexa3d.com/software/xip/) to download the NexaX 3D Print Software.
2. Tap **Confirm** to proceed to the next step.



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5.8 Make a Test Print

The printer is ready for your first print! XiP comes preloaded with a test part file to get you started.

1. Tap **Continue** if you want to select a preloaded model to start your first print. Otherwise, tap **Skip** to create your first print later.
2. Make sure the printer door is closed, then follow the instructions on the screen to select a model and start your print.
3. The screen continuously displays the status of your print.
4. When the print is complete, let the build sit for 5 - 10 minutes to allow excess uncured resin to drip back into the vat.
5. Wear your goggles and gloves and open the printer door. Unlock the build plate by flipping the lever down and remove the build plate with the part attached.

Your guided setup is complete! To re-run the guided setup, select **Settings > System > Onboarding**.

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6. Operating the Printer

6.1 Pre-Print Procedure

Follow these steps before every print.

1. **Install a clean Build Plate on the Z-axis platform**
   Maintaining a clean build plate is essential for print success. Ensure your build plate is free of any dust, debris, or cured resin on the surface.
2. **Install a clean Resin Vat**
   Make sure there are no cured pieces of resin or debris in the Resin Vat.
3. **Install a Resin Cartridge that matches the material in the Resin Vat**
   The material in the cartridge must match the resin in the vat. If a different type of resin is allowed to flow, the resin vat will be contaminated and will need to be cleaned before use.

6.2 Prepare a File for Print

Use NexaX software to process **.stl** and **.obj** files.

Prepare, save, and upload **.nxa** files to the printer either via Wi-Fi, Ethernet, or a USB thumb drive.

6.3 Start a Print

1. On the Print menu, tap the option you want and then select a file to print.

Queue: Files waiting in the NexaX job queue.

History: Files printed in the past.

USB: Files loaded on a USB key plugged into the USB port.

2. Confirm that the Resin Vat and Resin Cartridge match the file's resin type (you may need to re-generate supports for different types of material).
3. Tap **Print Now**.
   As the print progresses, the UI displays the progress by layer.
   You can walk away at this moment and leave the print unattended.

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4. After the print job is complete, a message requests whether the print was successful or not.
   If the print was successful, tap **Yes**. If the print failed, tap **No** and the printer will request whether you want to *Clean the Resin Vat After a Failed Print*.

6.4 Pause, Stop or Delete a Print

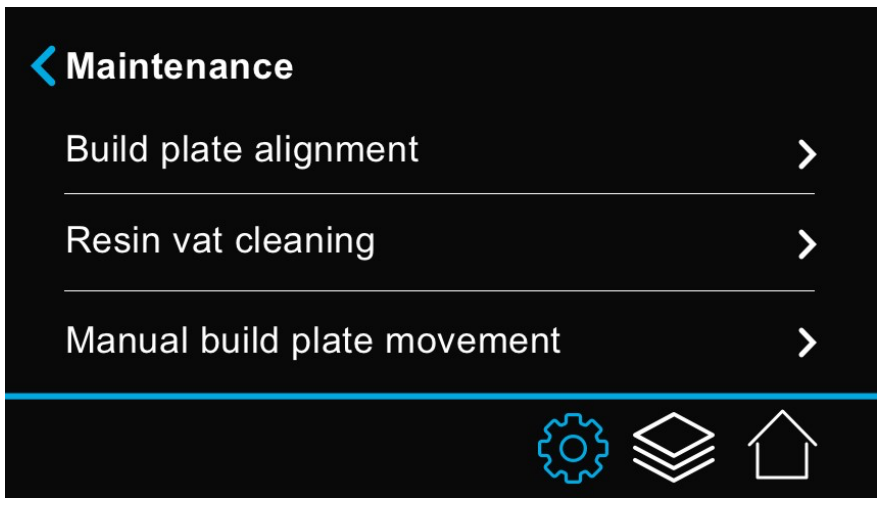
While a job is printing, you can tap **Pause** to temporarily stop the print. To resume the print, tap **Resume**. To completely stop a print in progress, tap **Pause** and then tap **Abort Print**.

To delete a print file, choose the file name from the queue and tap **Delete Job**.

6.5 Build Plate Alignment

It is essential that the build plate is level. A build plate that is not level can lead to poor first layer adhesion or damage to the LCD screen. The Build Plate leveling procedure must be performed after each replacement of the LCD.

1. Tap **Settings > Maintenance > Build Plate Alignment**.
2. The touch screen interface guides you through the process of loosening the screws and leveling the build plate.
3. Tap **Continue** to return to the home screen when the procedure is complete.



6.6 Change the Resin Cartridge Between Prints

The vat frame can be reused with different resins, however membranes must be dedicated to one type of material. They must be switched out when changing to a different resin.

Remove the Build Plate and Resin Cartridge before removing the Resin Vat to prevent dripping resin onto the printer.

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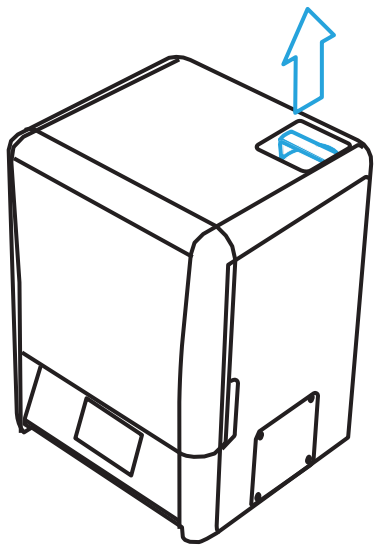
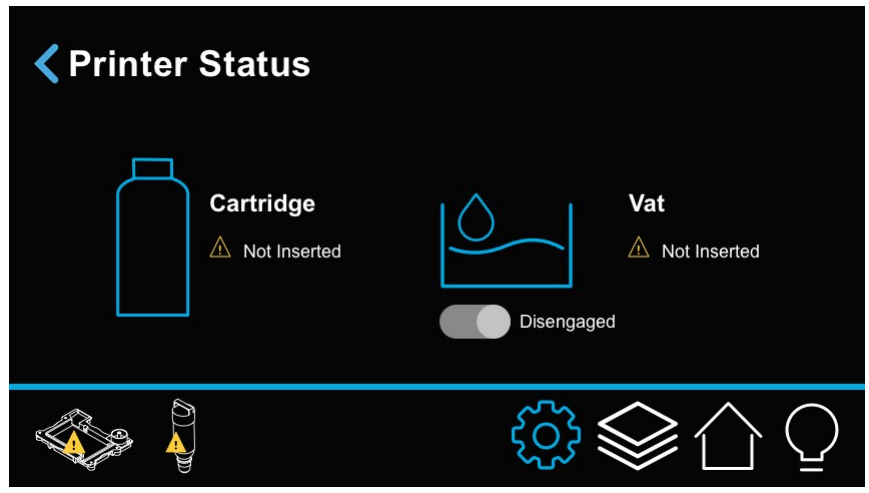
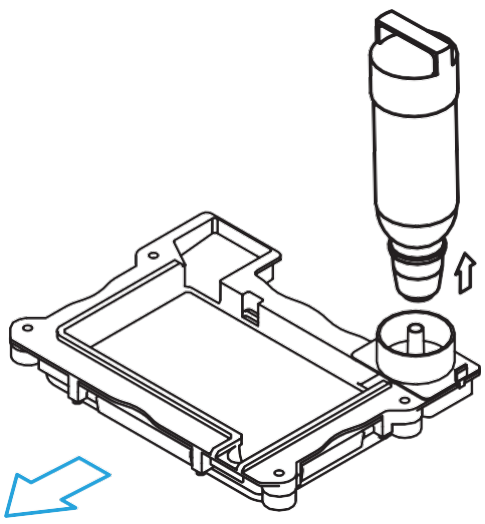
1. Lift the resin cartridge out of the printer.



2. Unlock the vat by going to Printer Status on the touchscreen and toggling the vat to **Disengaged**.



3. Lift the resin vat up and off of the LCD.



4. Fit the funnel and filter from the finish kit into the spout of the Resin Cartridge and pour excess resin from Resin Vat back into the cartridge to save for future prints. Use the plastic scraper from the finish kit to scrape resin away from the membrane entirely.

5. Replace seal cap to store cartridge. Dispose if the cartridge is depleted entirely.

6. Remove the membrane from the vat assembly. If the used membrane is not expired, store in an opaque container for future use with the same material.

7. Clean the vat frame thoroughly with IPA or xClean followed by rinse with water.

8. Install new membrane onto vat frame for use with the new material (refer to section 5.3).
   Install vat into the printer

9. Shake the new cartridge for 30 seconds to ensure it is thoroughly mixed.

10. Remove the seal cap of the new cartridge.

11. Invert and insert into the printer until the top of the handle is level with the top of the printer.The cartridge can remain in the hanging position for vat clearance.

12. Insert completely by rotating the cartridge until it drops into place and sits flush with the top of the printer.

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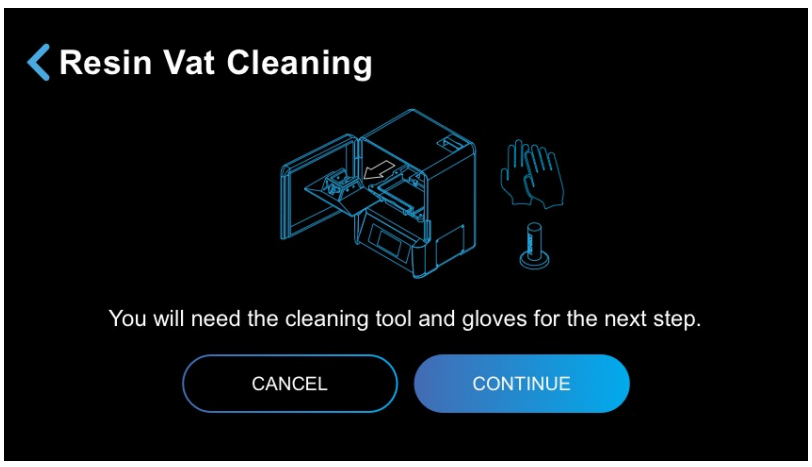
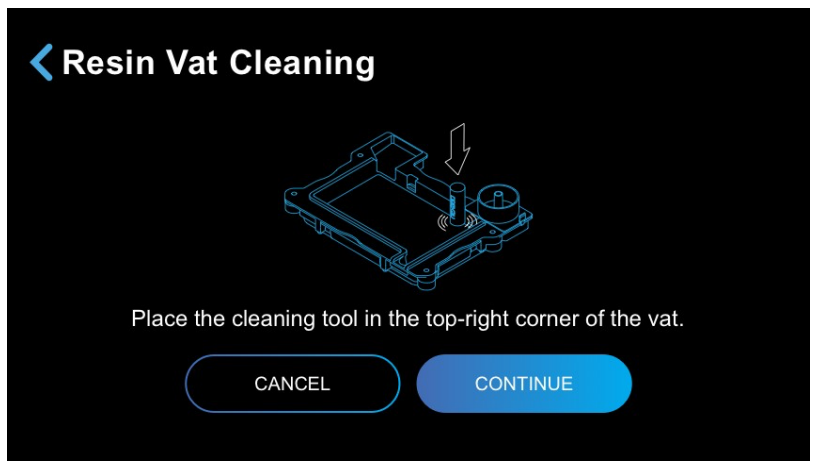
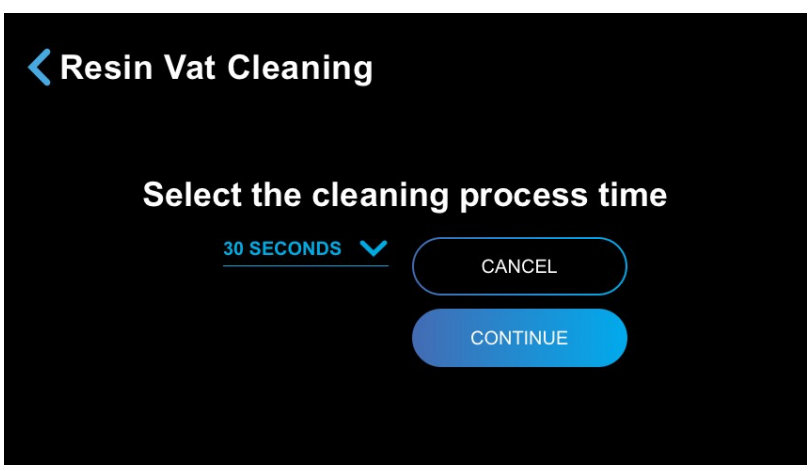
6.7 Clean the Resin Vat After a Failed Print

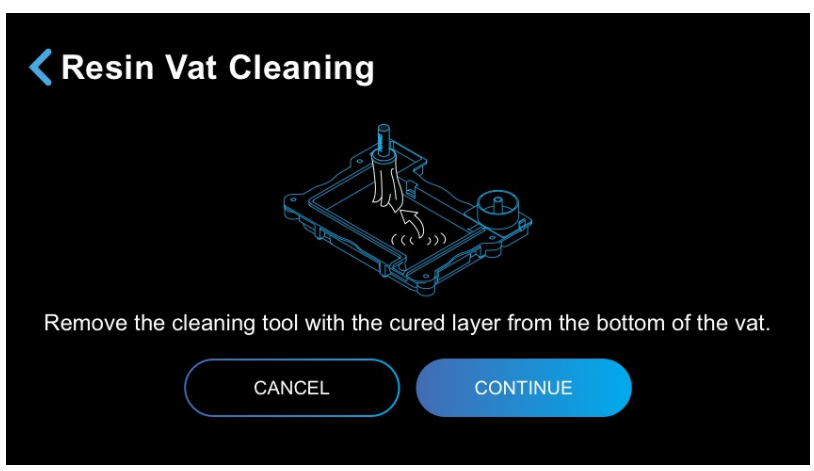
If there is a failed print or loose partially cured pieces of resin have settled in the Resin Vat, you can use the XiP cleaning process. The process cures a thin layer of material on the membrane at the bottom of the Resin Vat to capture settled debris. The layer can then be peeled away using the cleaning tool.

1. Open the printer door and place the cleaning tool in any corner of the Resin Vat with the flat side submerged in the liquid resin and the handle standing above the surface.
   Note: Always wear protective gloves when handling uncured resin.
2. On the printer touchscreen tap **Settings > Maintenance > Resin Vat Cleaning**.
3. Tap Continue to proceed with cleaning.
4. Make sure the printer door is closed and tap Confirm.
5. Select the cleaning process time via the drop down menu (a longer cleaning time generally provides a more thorough cleaning) and click Continue. Optionally, you can tap Cancel to cancel the process.
6. Tap Confirm when the cleaning process is complete.
7. Wear protective gloves to protect your hands from the liquid resin. Open the printer door, firmly grasp the handle of the cleaning tool, and carefully peel the cured film of resin away from the Membrane.
8. Optionally, use the plastic scraper tool from your finishing kit to scrape around the remaining liquid resin to visually check the condition of the membrane. If you find any punctures, scratches, or gouges, the Membrane will need to be replaced.









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7. Care and Maintenance

Regular maintenance is essential for keeping your XiP printer operating successfully.

7.1 Inspecting the Printer

Adjust the suggested frequency based on personal use.

Inspect	Frequency	Look For	Maintenance Action
Build plate	Before every print	Clean, flat, smooth surface	Use scraper to remove cured resin. Wash plate in isopropyl alcohol if needed.
Resin vat interior	Daily After any print failure	Membrane has no punctures, cuts, gouges, or cured resin. No cured resin particles floating in the vat	Run the process to clean the resin vat (Clean Job)
LCD Glass	Daily	Clean and free of any resin, dust or other debris	Wipe with IPA to remove liquid resin and carefully use a razor blade flush along surface to peel off thin cured resin layers
Touchscreen	Daily	Clean of resin residue	Wipe with IPA to remove residue
Build plate alignment	When LCD is replaced, around 3000 hours of printing	Build plate is level with the LCD screen	Run the process to level the build plate
Air filter	Every 3-6 Months	Filter is not dirty or clogged	Replace as needed. We recommend more frequent inspections depending on your environment

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7.2 Planned Maintenance Procedures

7.2.1 Update XiP Firmware when a New Version is Available

Nexa3D periodically releases updated firmware to fix bugs and improve functionality. Review the release notes to learn more about the improvements in each version's release.

Firmware updates can be installed by downloading the newest .nxu file to your computer and transferring to the printer with a USB drive, or via the internet if the printer is connected via WiFi or ethernet.

1. If connected to the internet, the printer will alert when there is a new update available. Select **Settings > System > Update** from the touchscreen UI to and choose **Check Online**. Follow the on-screen instructions to complete the update.
2. If transferring via USB drive, download the .nxu file from our support site Downloads page (support.nexa3d.com/hc/en-us/p/downloads). Transfer the .nxu file to the root directory of a USB drive that is formatted FAT32.
   Note: Do not place the .nxu file within a folder, as the system will not be able to detect it. Do not modify the name of the file.
3. Plug the USB drive into port on the left hand side of the printer, then select **Settings > System > Update** from the touchscreen UI and choose Check USB.

Once the update is started, the printer will need about 5 - 10 minutes to complete the update process. The internal LED lights of the printer will turn off and then flash bright white when the update is successful.

7.2.2 Replace a dirty or clogged air filter

XiP is equipped with an intake fan and air filter. The fan cover is located on the side of the printer.

- Replace the air filter every 3-6 months depending on your air quality.
  High air flow is required for cooling the light engine.

1. Use the 3mm hex key provided with the printer to remove the 4 screws holding the fan cover in place.
2. The fan cover is located on the right side of the printer.
3. Remove the fan cover.
4. Slide the used filter out of the frame on the back of the cover.
5. Slide the new filter into the frame, replace the fan cover and attach with the 4 screws.

7.2.3 Replace a worn or damaged membrane

The Resin Vat Assembly is a 3-piece assembly of a rigid frame, a replaceable membrane, and a face seal that provides a leak-proof seal between the frame and membrane.

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The Membrane is a consumable part and becomes worn over time. Replace the Membrane when wear begins to affect print quality. You should immediately replace the Membrane if there is any visible damage or evidence of resin leakage.

1. Tap **Settings > Printer Status** and then tap on the resin vat icon to unlock the magnetic clamps that hold the vat onto the LCD.
2. Lift off the resin vat.
3. Clean the vat thoroughly to avoid dripping resin when the vat is turned over.
4. Flip the vat over and place it on a clean, flat surface.
5. Unlatch the 4 latches holding the Membrane onto the frame and lift off the Membrane.
6. Hold the new membrane by the edges and place it in the recess (screws facing up), taking care not to touch the clear membrane.
7. Make sure the Membrane is seated snugly on the face seal to prevent leaks and close all 4 latches that hold the Membrane onto the frame.
8. Turn the resin vat right side up and then place the vat back onto the LCD.

Note: Membrane Handling Precautions.

- Handle by the frame only, avoid touching the Membrane.
- Keep resin off light-engine side of membrane.
- Avoid contact with any surface other than the light engine - keep on a clean surface or in a clean bag.
- If changing to a different resin, clean the resin side only using a lint free wipe moistened with IPA.
- Shelf life of new Membrane is 2 years stored in sealed bag.
- Shelf life with resin is 2-4 weeks, store in a dark, clean container.

To prevent damage to the membrane:

- Check Build Plate for cured resin or burrs before use.
- Filter resin or run a Clean job after any failed build.
- Keep away from sharp objects.
- Inspect light engine surfaces and seals for cracks, burrs, or damage.
- Clean light engine surface with 99% IPA before installing membrane.

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7.2.4 Replace the LCD Assembly

The LCD screen is essential in resin 3D printing. An image of each layer is generated on the LCD while an array of LED chips project light through the LCD. The LCD is a consumable part and may need to be replaced when wear affects print quality.

Remove the old LCD

1. Turn off the 3D printer and unplug the power cable before changing the LCD.
2. Open the printer door and make sure the build plate is lifted completely on the Z-axis. Remove the Resin Cartridge, Build Plate, and the Resin Vat.
3. Use a 3 mm hex (Allen) wrench provided with the printer to remove the four screws that attach the LCD to the printer. (Fig. A)
4. Note: If any resin has cured on the screw heads, carefully remove it before trying to remove the screws.
5. Lift the screen straight up and off the printer. (Fig. B)

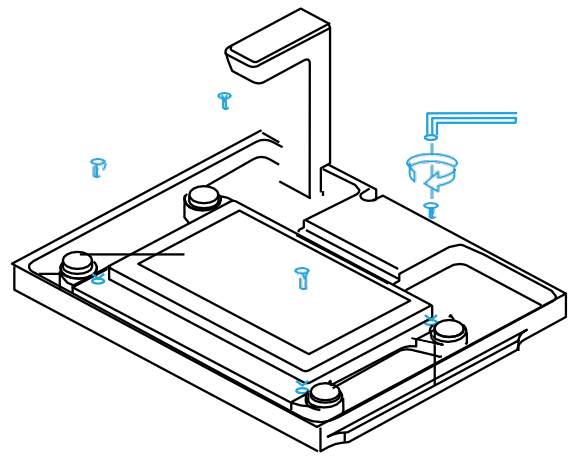

Fig. A

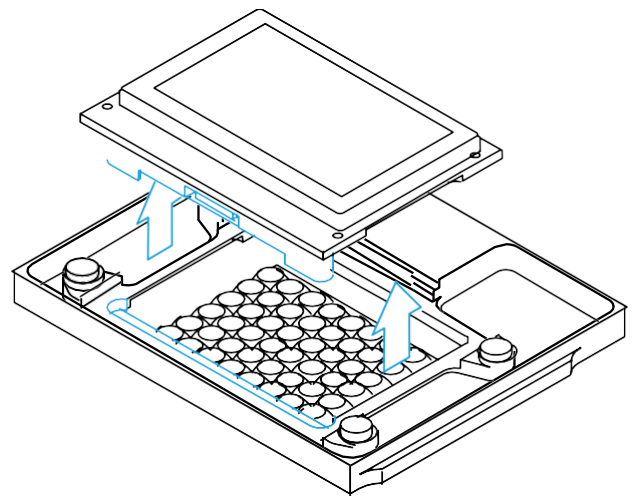

Fig. B

Install the new LCD

1. Make sure the new screen is oriented with the PCB connector (located on the underside of the LCD) at the front.
2. Place the new LCD Screen into the printer and make sure it seats securely with the PCB connector. (Fig. C)
3. Replace the four screws and tighten with a 3 mm hex (Allen) wrench until hand tight. (Fig. D)

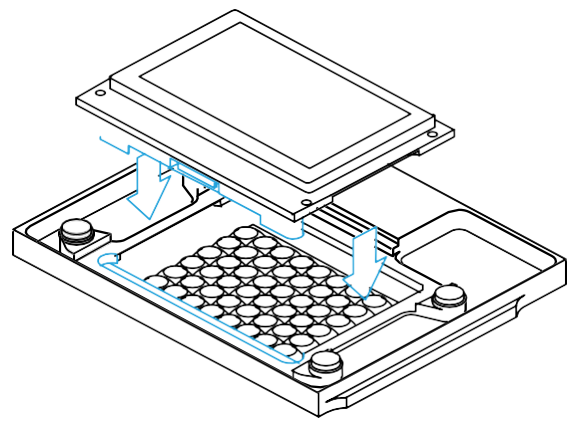

Fig. C

After LCD installation, run the **Build Plate Leveling Procedure** on the UI to calibrate the new LCD to your Build Plate. Failure to do so may result in damage to the LCD. To perform the procedure, install the Build Plate and choose **Maintenance > Build Plate Leveling** from the touch screen. Follow the on-screen steps to complete the procedure.

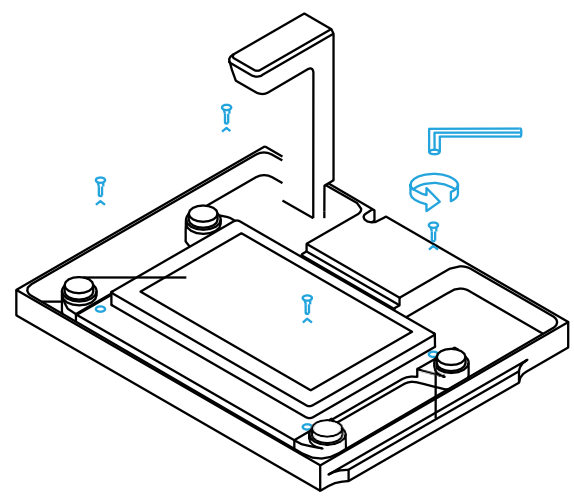

Fig. D

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7.2.5 Replace the Glass LCD Protector

The LCD screen is covered by a glass screen protector to shield the LCD from damage. The screen protector will need to be replaced if it is cracked or scratched, as it can puncture the membrane. A replacement kit can be purchased from our online store, and it includes:

- A replacement glass LCD cover
- Cover removal tool
- Dust-removal Stickers
- Microfiber cloth
- Alcohol-wipe

The plastic spatula included in the finish kit will also be needed, as well as some sticky tape. Make sure that the printer is in a dust-free environment for the easiest application.

Removing Cracked LCD cover

1. Power down the printer and open up the door.
2. Remove build plate, resin cartridge, and resin vat from the printer to expose the LCD.
3. Gently peel up the corners of the cracked cover using the flat edge of the cover removal tool.
4. Once corners are pulled up, peel cracked cover away from the LCD, being careful not to touch the LCD glass surface.
5. Wipe LCD screen with alcohol wipe and microfiber cloth to remove as much residue and dust from the LCD glass surface as possible.
6. Make sure that there is no dust on the LCD. Remove any visible specks with the dust-removal stickers.

Applying Replacement LCD Cover

1. There should be a protective film with a pull tab on each side of the replacement cover. Only remove the protective films when specified.
2. Lay the replacement cover down on a clean, dust-free work surface.
3. Using the pull tab, gently peel away the bottom protective film.
4. Handling the cover only by the edges, hold the cover over the LCD and match up the corners so that they are aligned.
5. Gently squeeze to slightly arch the cover toward the LCD and lower until the middle of the cover rests on the LCD glass.

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6. Slowly lower and let go of the edges of the cover until it settles entirely onto the LCD.
7. Using the straight edge of the plastic scraper from the finish kit, gently scrape out any air bubbles that may remain beneath the cover.
8. Using the pull tab, carefully peel the upward-facing protective film away from the cover.

8. Basic Troubleshooting

Problem	Possible Cause	Corrective Action
No display appears on the touchscreen	Poor power contact	Check that the power cable is connected to an AC source
Cannot start print	Door is open	Close door
Model does not stick to the build plate	Drag forces from model orientation is pulling the part from the build plate	Ensure that there are no cups being created by orientation, and that the part is properly supported
	Build plate leveling is not set well, causing the first layer to have uneven thickness	Run through the Build Plate Leveling process
	Model does not have enough contact between the bottom layer and Build Plate	Re-orient the model or add more support
Print fails	Ambient temperature is too cold	Make sure ambient temperature is at least 70˚F / 20˚C
	Resin has settled and needs mixing	Shake the resin cartridge for 30 seconds before installing

For more troubleshooting guidelines, visit support.nexa3d.com or reach out to support@nexa3d.com to open a support case.

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9. XiP Ecosystem Hardware Limited Warranty

Only Hardware products within the XiP ecosystem, including the XiP 3D printer and XiP Wash+Cure post-processing station, purchased from Nexa3D or Nexa3D-authorized personnel, are warranted by Nexa3D pursuant to the following:

Hardware Limited Warranty. Nexa3D warrants that Nexa3D-branded Hardware and embedded software in the Product will be warranted against defects in materials and workmanship for the Standard Hardware Warranty Period, and any applicable Extended Hardware Warranty Period. This warranty is the only warranty made by Nexa3D with respect to the Hardware or the Product.

Warranty period. Unless otherwise stated, the Standard Hardware Warranty Period is the twelve (12) month period following the date of purchase by the customer from Nexa3D or the Nexa3D Authorized Reseller. An extended warranty may be purchased within 30 days of initial sale for certain Products that extend the warrants herein by a specific number of months after the Standard Hardware Warranty Period ends. (“Standard Hardware Warranty Period”) (“Extended Hardware Warranty Period”)

Spare Parts Limited Warranty. Nexa3D Spare Parts are warranted against defects in materials and workmanship for a period of ninety (90) calendar days after the date of installation in the Product as determined by printer software activation timestamp. (“Spare Parts Warranty Period”).

Remedies. Upon notice to Nexa3D of a valid warranty claim during the Standard Hardware Warranty Period or the Spare Parts Warranty Period or the Extended Warranty Period, Nexa3D will, at Nexa3D’s sole discretion, and as Nexa3D’s sole and exclusive liability, and Customer’s exclusive remedy, arising under this Hardware Limited Warranty for Hardware and Spare Parts, either (i) repair the Hardware Product with new or refurbished replacement parts, or (ii) repair or replace the Spare Parts, or (iii) direct the customer to install any Customer Replaceable Unit (CRU) or spare part to achieve the repair. All parts and components removed and replaced by Nexa3D remain Nexa3D’s property.

Transfer of any Hardware Limited Warranty is available only with prior written approval from Nexa3D, which shall not be unreasonably withheld.

Warranty Claims Process. To obtain warranty services, Customer must contact the party from whom the hardware was originally purchased, either Nexa3D or the Nexa3D Authorized Reseller. This party will work with the Customer to identify the cause of the problem and the actions necessary to resolve it. If on-Site service is required, as determined by Nexa3D or Nexa3D Authorized Reseller, it will be provided by Nexa3D or Reseller, subject to the Warranty Exclusions described below, at no cost during the Standard Hardware Warranty Period or Extended Hardware Warranty Period.

Exclusions. This Nexa3D Hardware Limited Warranty does not warrant that the operation of the Product will be uninterrupted or error-free, or that the Product will operate in hardware and software combinations other than as expressly permitted by Nexa3D in Product specifications, or that the Product will meet the Customer’s requirements.

The Hardware Limited Warranty does not cover any:

(i) third party hardware unless such hardware was authorized by Nexa3D pursuant to this Agreement for use with Nexa3D-branded Hardware;

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(ii) damage caused by accident, abuse, misuse (including damage resulting from use of non-approved consumables (including but not limited to non-Nexa3D Branded Consumables and/or non-Nexa3D Certified Materials) or other third-party non-approved products);

(iii) relocation of Hardware without the use of Nexa3D approved procedures or Nexa3D authorization;

(iv) loss or interruption of electric power;

(v) improper or inadequate maintenance or calibration, failure to perform user maintenance as defined in the User Guide for the Product;

(vi) contamination of the Consumables due to improper handling or storage of the Consumables;

(vii) modification of the Hardware without the written permission of Nexa3D;

(viii) Hardware on which the Nexa3D serial number has been removed or defaced or for which you cannot provide proof of purchase and payment;

(ix) taxes, tariffs, and duties associated with the importing or exporting of warranty and non-warranty parts;

(x) failure to comply with the Product Use Requirements;

(xi) failure to comply with the User Guide, including Workspace Preparation and Installation Requirements or environmental conditions that do not conform to our specifications;

(xii) abuse, negligence, accident, loss or damage in transit, fire or water damage, electrical disturbances, transportation by Nexa3D Authorized Reseller or End User or other causes beyond our control;

(xiii) virus, infection, worm, or similar malicious code not introduced by Nexa3D; or

(xiv) any other unauthorized use of the Products, including any claims made by End Users.

Special Provision for Customer Replaceable Units (CRU). Customer shall be solely responsible for the installation of each CRU delivered to Customer during the Standard Hardware Warranty Period or Extended Hardware Warranty Period. Any and all replaced CRUs shall be returned to Nexa3D no later than ten (10) business days after the date of delivery of the new CRU to the Customer.

Disclaimer for 3D Printed Parts. NEXA3D MAKES NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES OF ANY KIND WITH RESPECT TO THE 3D PRINTED PARTS, WHETHER EXPRESS OR IMPLIED, INCLUDING ANY GUARANTEE, REPRESENTATION, OR WARRANTY RELATING TO THE COMPLIANCE OF THE PRODUCT TO PRINT A 3D PRINTED PART THAT MAY BE COVERED BY REGULATION, THE COMPLIANCE OF ANY 3D PRINTED PART WITH ANY SPECIFIC REGULATION, THEIR CONDITION, CONFORMITY TO ANY DESCRIPTION, THE EXISTENCE OF ANY LATENT OR PATENT DEFECTS IN THE 3D PRINTED PARTS OR ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. THE CUSTOMER ASSUMES THE ENTIRE RISK RELATING TO THE USE OR PERFORMANCE OF THE 3D-PRINTED PARTS. AND NEXA3D SHALL NOT BE LIABLE FOR ANY DEFECT, DEFICIENCY, OR NONCONFORMITY IN THE 3D PRINTED PARTS.

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9.1 Certifications

9.1.1 Radio and Television Interference

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. 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.

Contains FCC certified transmitter module(s):

- 2ABCB-RPI4B

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 might cause undesired operation.

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