XTOOL | X1

Quick Start Guide



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List of items



xTool X1

The actual appearance of the power cable may vary.



Power cable



USB cable



Extension cable for xTool rotary attachment



Key



Nozzle



Lubricant



Antifreeze



Exhaust duct assembly



2-in-1 screwdriver (Phillips + hex)



Slotted screwdriver



Masking tape



Slat



Focus calibration card



Calibration sheet



Material pin



Rotary attachment fixing pin



Frame fixing pin

Patches for distance measurement (spare parts)



Installation tool for optical window



Basswood

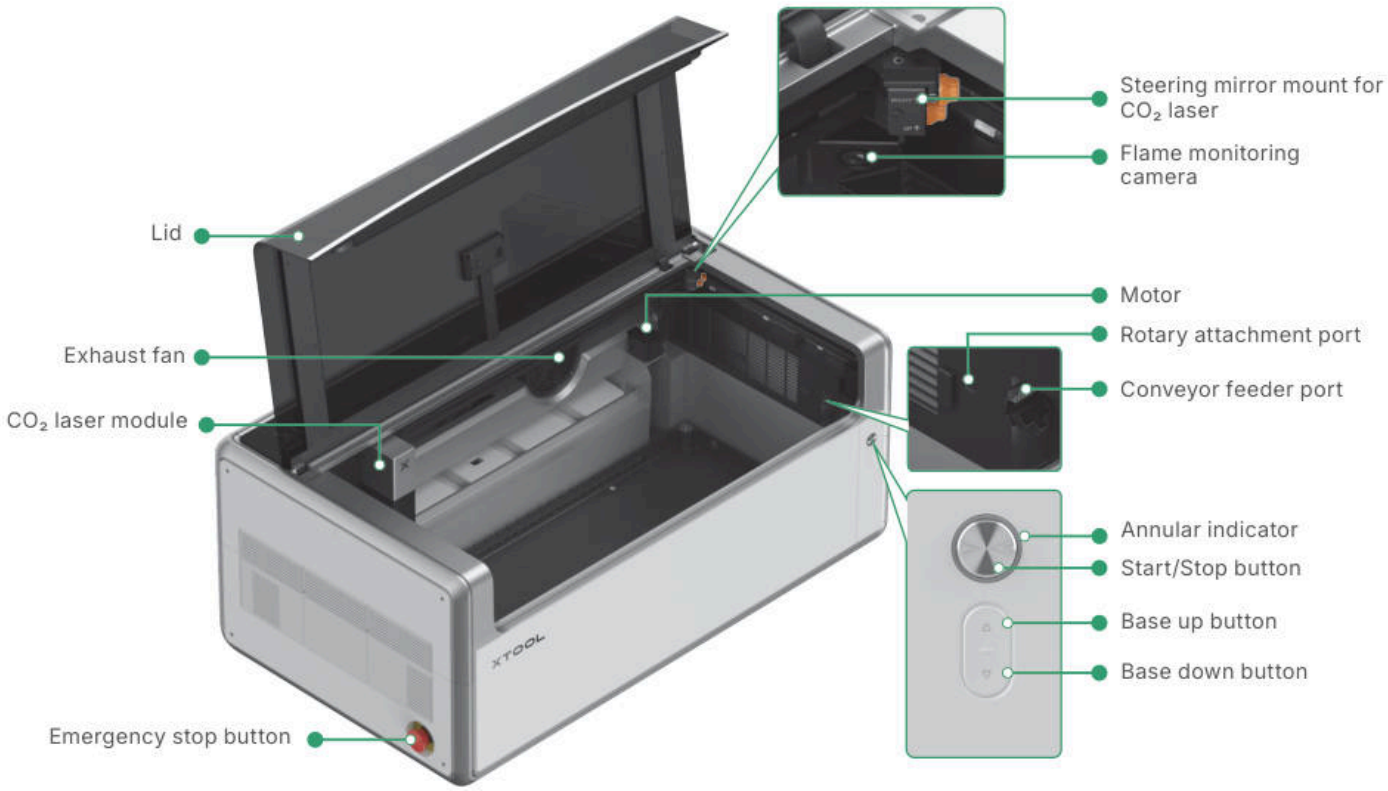


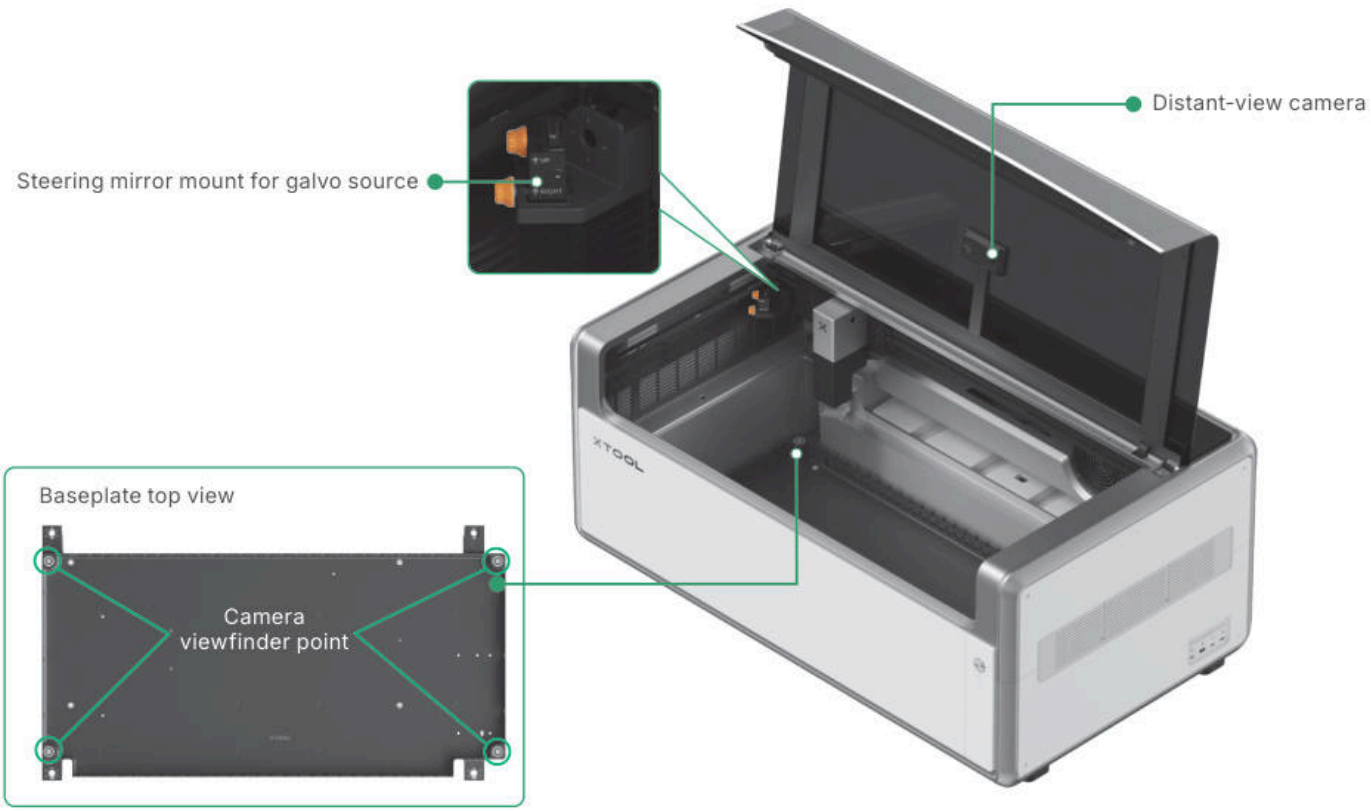
Safety Instructions



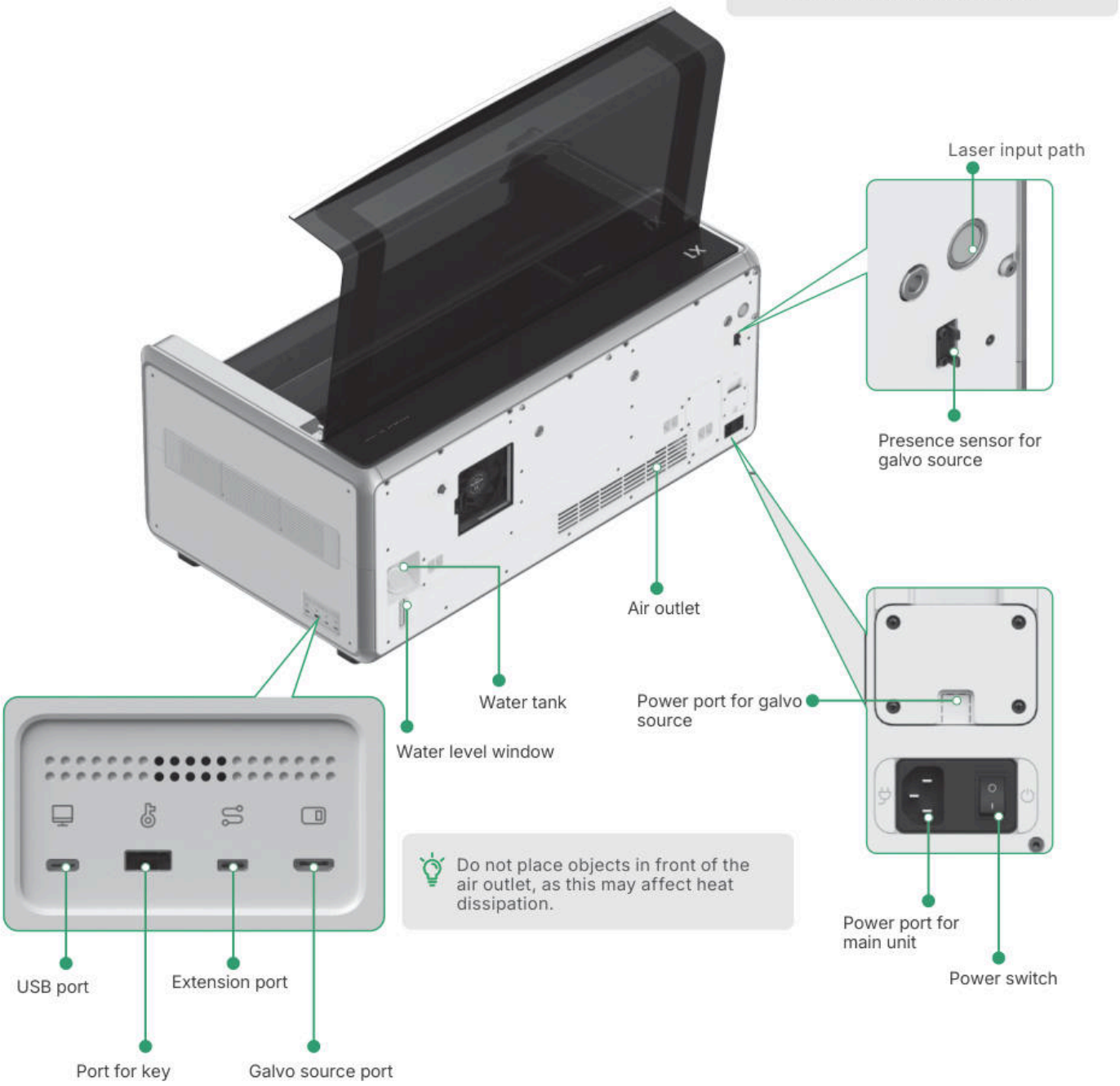
Quick Start Guide

Meet xTool X1





The laser input path has a dust-proof sticker. If a galvo source is not used, keep the sticker to avoid contaminating the optical path.

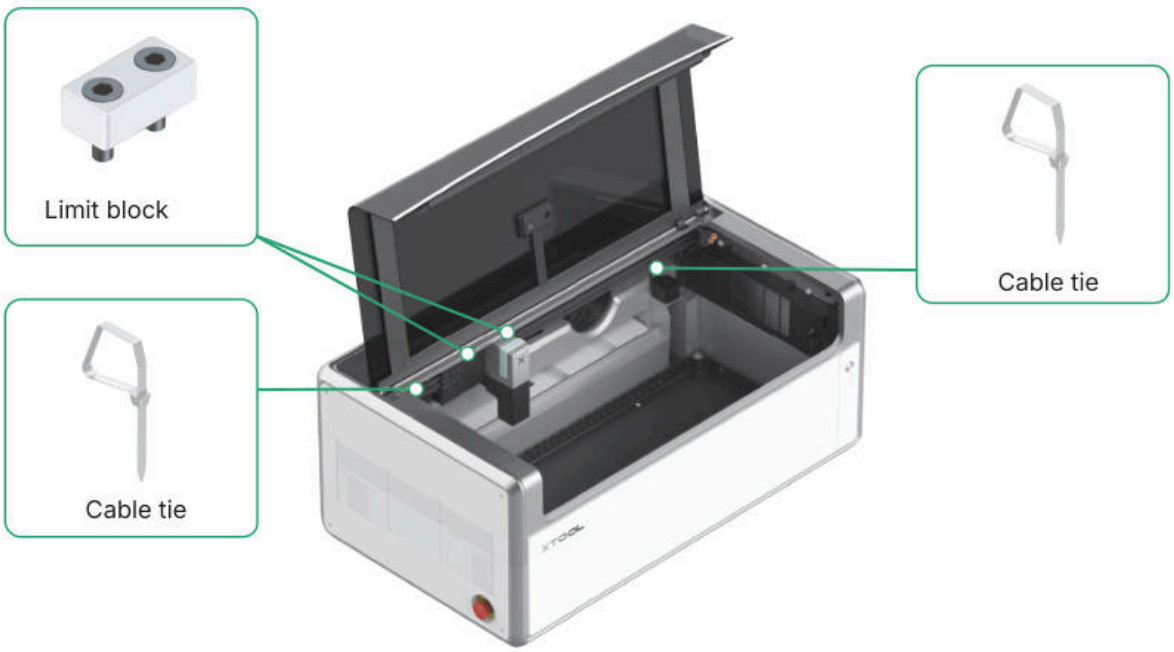


Do not place objects in front of the air outlet, as this may affect heat dissipation.

Preparations

■Place xTool X1 on a flat and clean surface to prevent small particles from being drawn into the air inlet at the device bottom, which may reduce the device performance or cause damage.
■Reserve sufficient space behind xTool X1 for subsequent operation such as liquid filling and exhaust duct assembly installation.

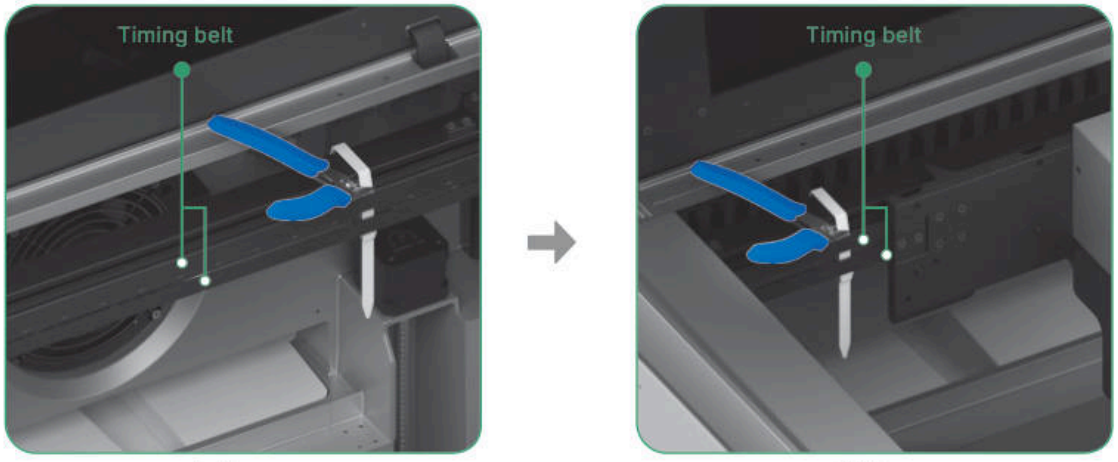
1 Remove the cable ties and the yellow stickers behind them, then remove the limit blocks



(1) Cut the cable ties.



Be careful not to damage the timing belt when cutting the cable ties.



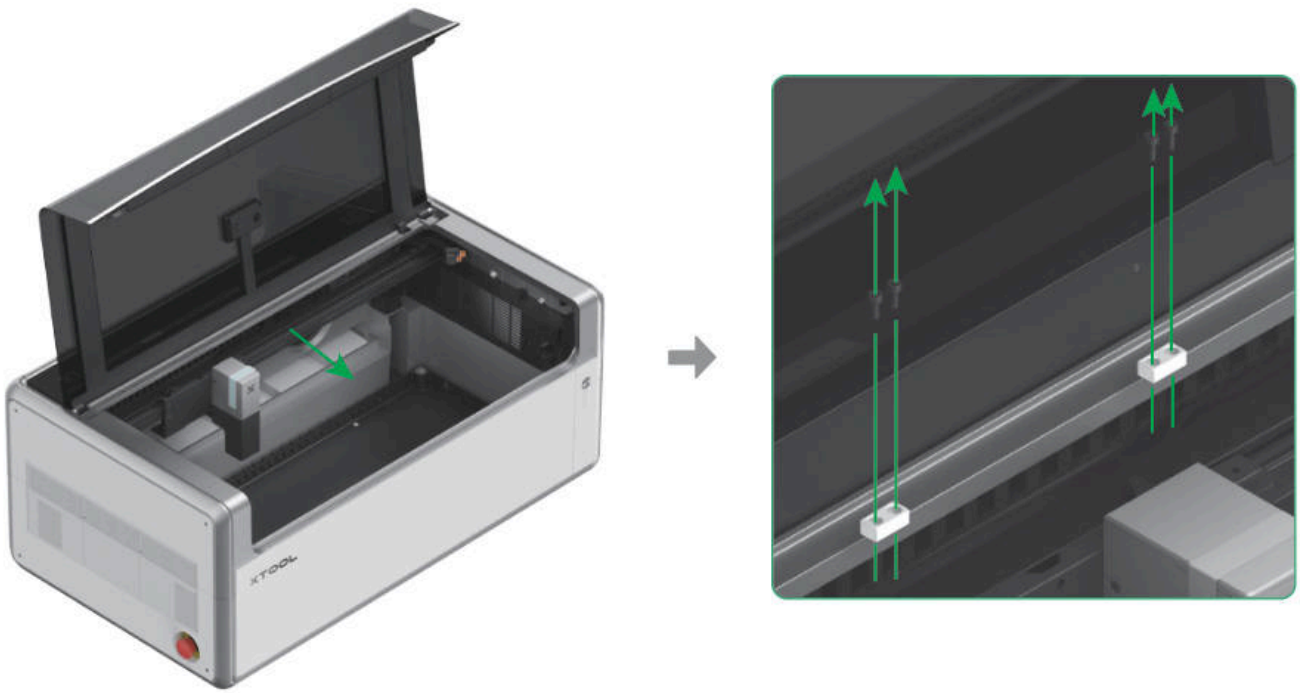
Left Right

(2) Remove the two stickers behind the cable ties.

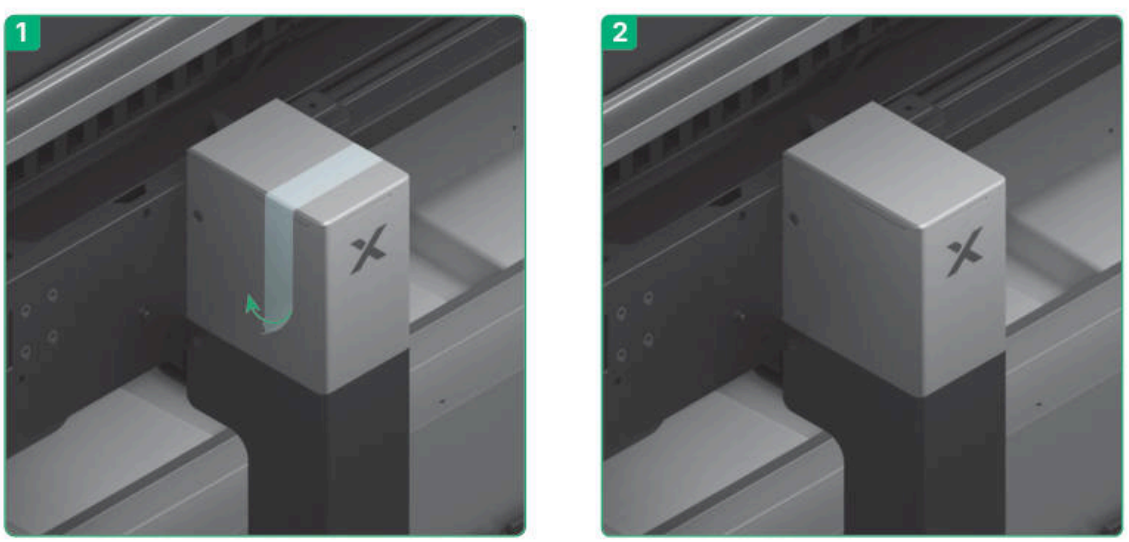
(3) Pull out the x-axis guide rail and remove the limit blocks.



2-in-1 screwdriver (Phillips + hex): Use the hex end



2 Peel off the masking tape on the CO_2 laser module

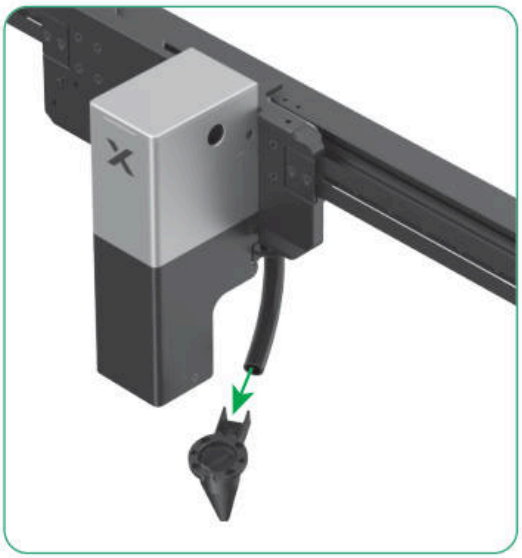


When peeling off the tape, the cover of the laser module may become detached. Simply reattach it magnetically.

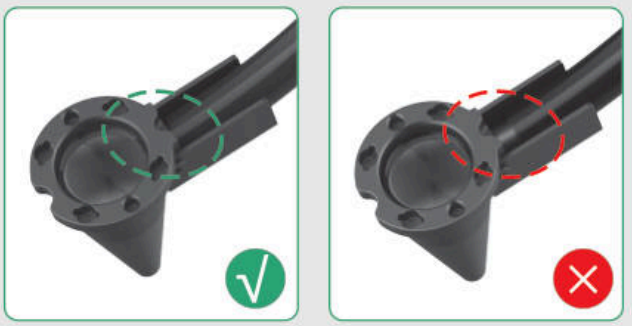
3 Install the nozzle



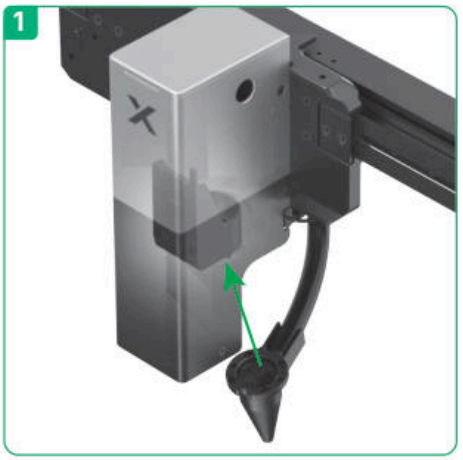
(1) Fit the air tube of the CO_2 laser module onto the nozzle.

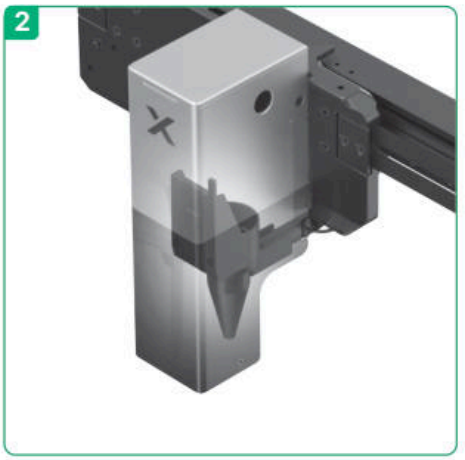


Fit the air tube all the way to ensure it is fully seated.

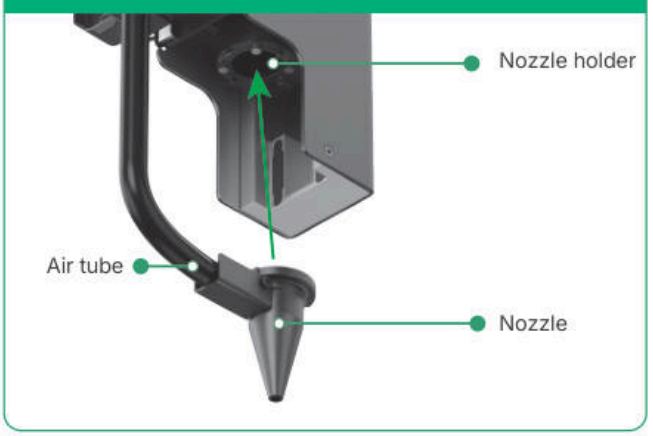


(2) Magnetically attach the nozzle to the nozzle holder inside the laser module. After installation, gently tug on the air tube to make sure the nozzle is securely seated.





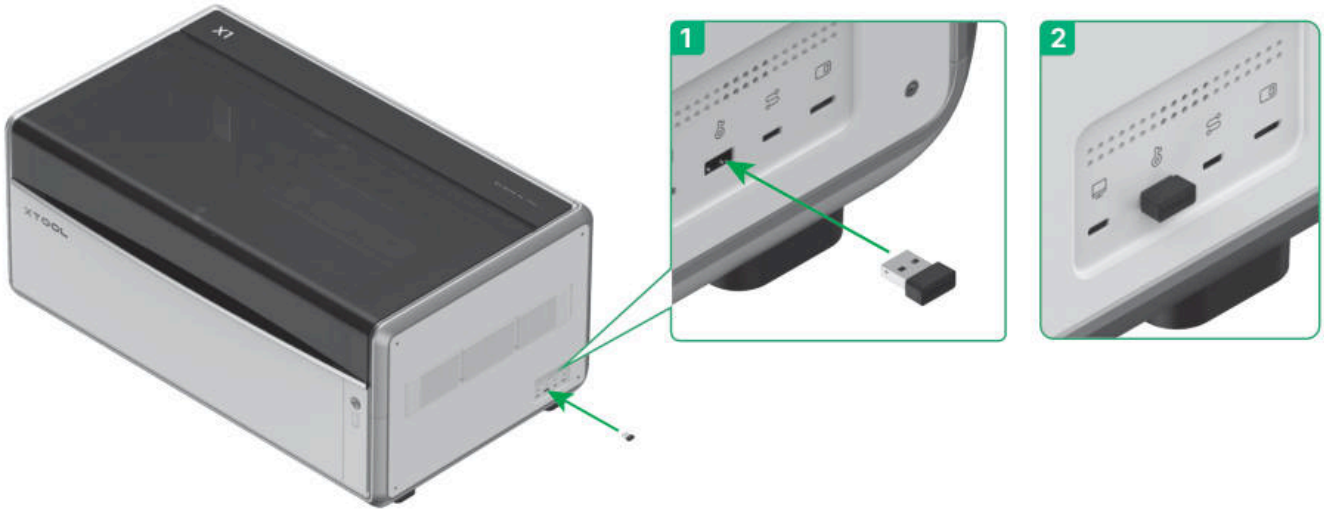
Bottom view



Once the nozzle is magnetically secured in place, it is normal for the tube to bend. No action is required.

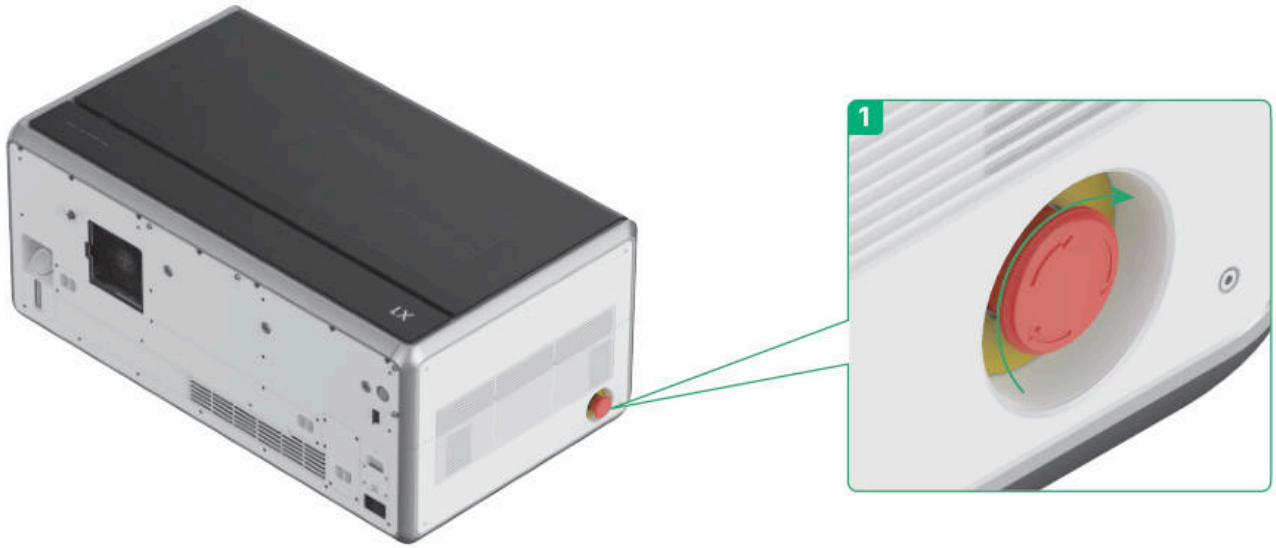
4 Insert the key

Key



5 Check the emergency stop button

Ensure that the emergency stop button is released. If it is pressed, rotate to release it as shown in the image.



If an emergency occurs, you can press the emergency stop button to shut off the machine.

Emergency stop button pressed



After dealing with the emergency, you can turn the emergency stop button to reset it.

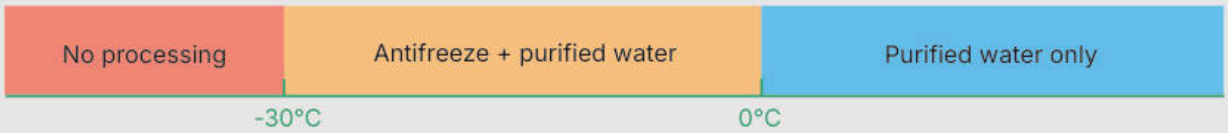
Emergency stop button released



6 Fill the water tank

Temperature-related:

- It is recommended to operate the device in an ambient temperature range of 0°C to 35°C. Please avoid using the device in temperatures below -10°C, as this could result in permanent damage.
- Do not use antifreeze when the ambient temperature is 0°C or above. Otherwise, it will reduce heat dissipation performance.
- When the ambient temperature rises from below 0°C to 0°C or above, drain all liquid from the water tank and fill it with the recommended amount of purified water.



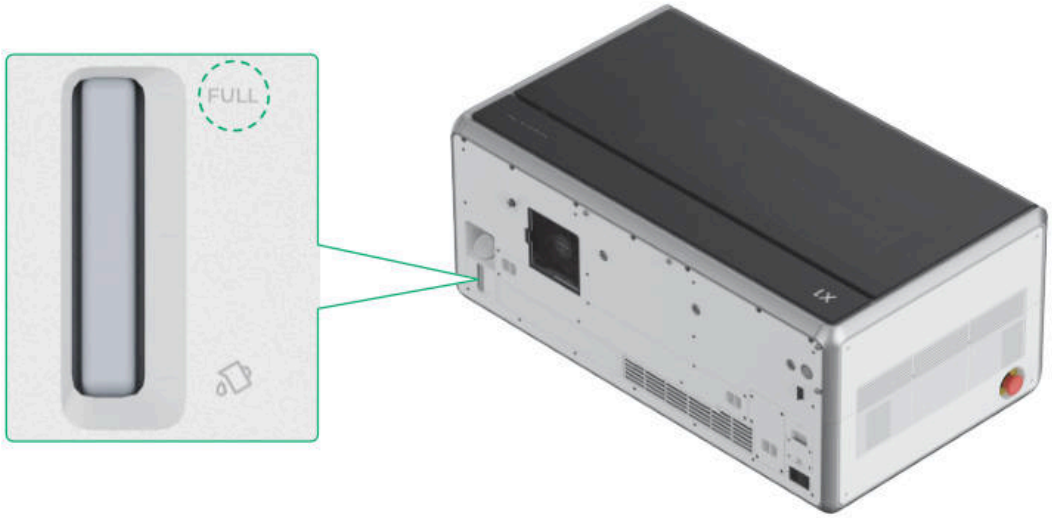
Liquid-related:

- Fill the water tank before powering on the device to prevent the laser tube from freezing and cracking.
- To avoid overflow, be careful when pouring in liquid.
- Distilled water or deionized water may be used as substitutes for purified water, but never use mineral water, tap water, or other liquids as substitutes.
- The provided antifreeze is 99.8% propylene glycol. Store it in a cool, well-ventilated area away from heat sources and avoid direct sunlight.

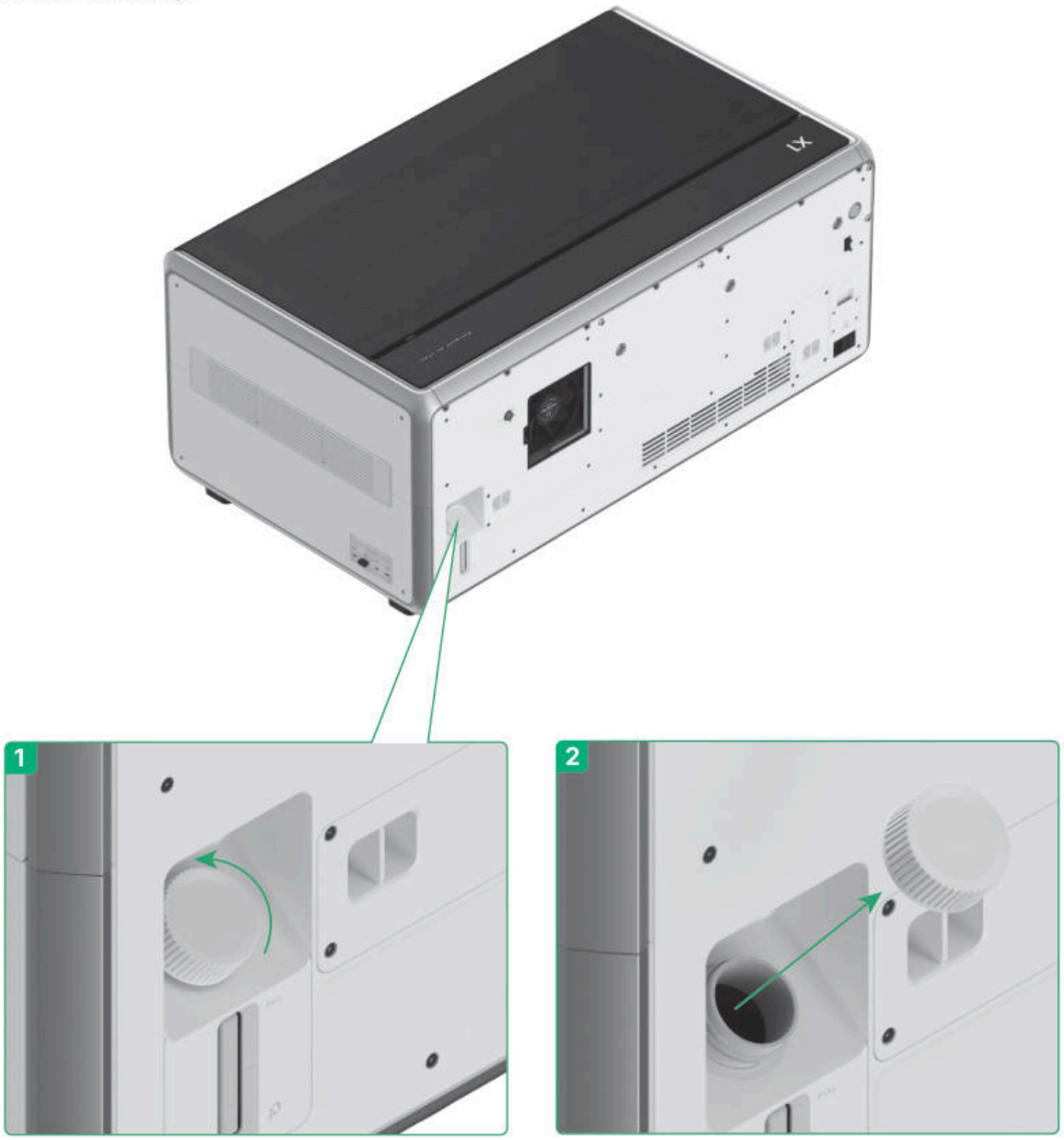
(1) Determine the volumes of antifreeze and purified water to be used based on the annual lowest temperature in your region.

Annual lowest temperature in your region (°C)	Concentration (%)	Antifreeze (mL)	Purified water (mL)
T≥0	0	0	1300
−10≤T<0	20	260	1040
−20≤T<−10	35	455	845
−30≤T<−20	45	585	715

* After adding the appropriate amout of liquid as shown in the table above, the liquid level should reach the " FULL" mark.



(2) Open the water tank cap.



(3) Fill the water tank (Take −8°C as an example).



Refer to the table in step (1). In the example environment of −8°C, 260 mL of antifreeze needs to be added.





Then, fill in 1040 mL purified water.





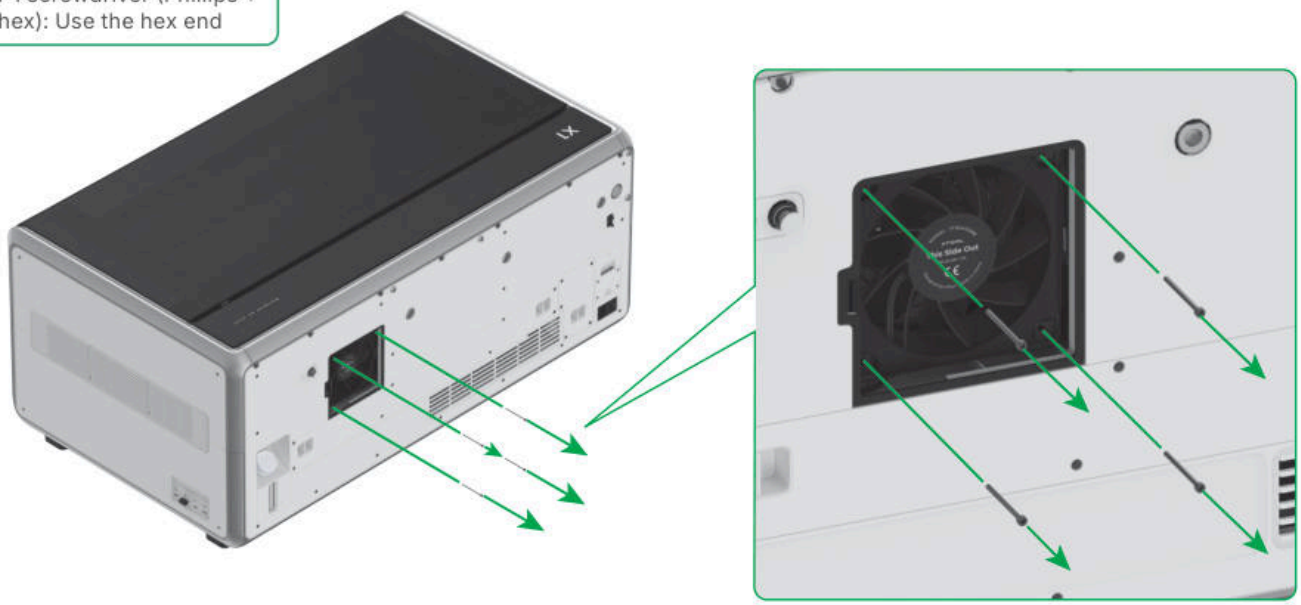
(4) Tighten the water tank cap.

7 Install the exhaust duct assembly

(1) Remove the four screws securing the smoke exhaust fan.



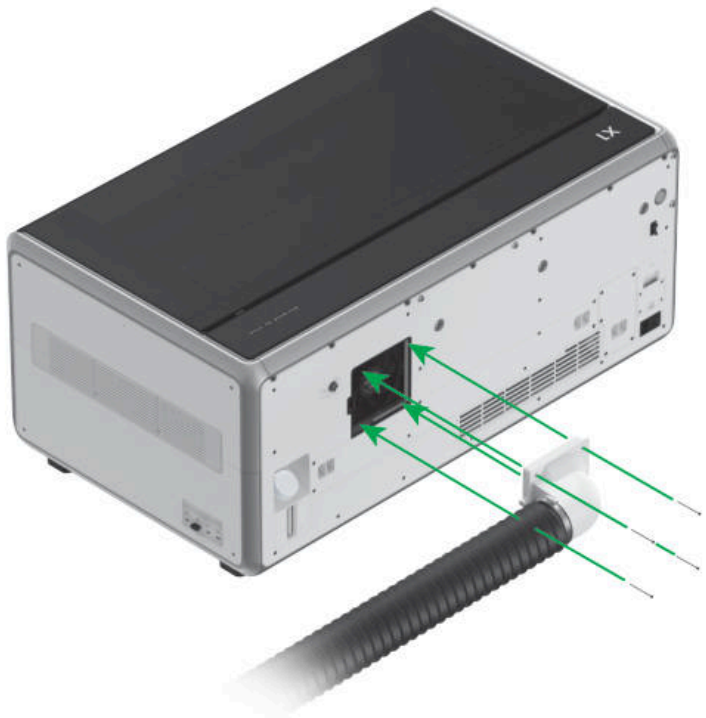
2-in-1 screwdriver (Phillips + hex): Use the hex end



(2) Install the exhaust duct assembly with the four screws removed in step (1).



Exhaust duct assembly



xTool X1 has now been fully installed. If the kit also includes 20W diode galvo module or a galvo source, refer to the corresponding ***User Manual*** to complete the remaining installation steps. Make sure both the main unit and all accessories are fully installed before proceeding to initial calibration and processing operations in xTool software.



User Manual of 20W Diode Galvo Module



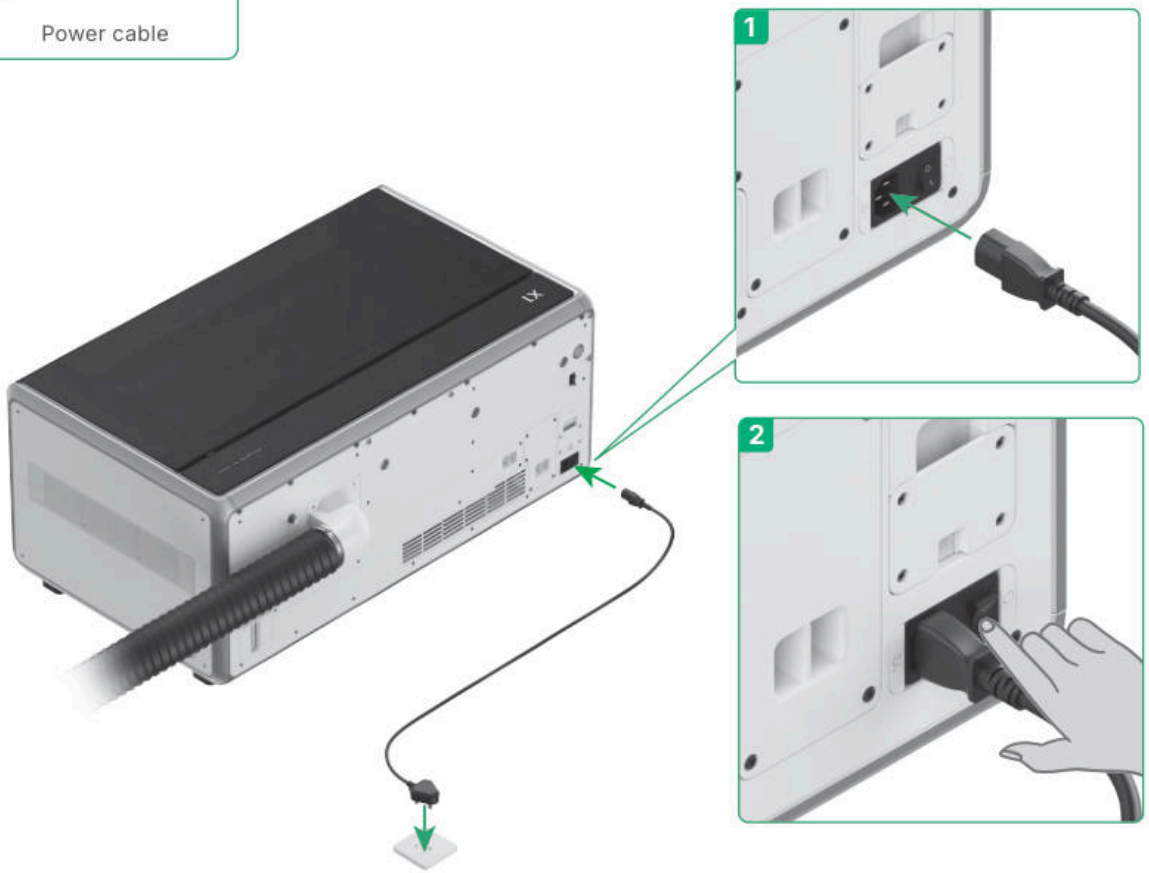
User Manual of Galvo Source

8 Plug in the power cable and power on the device



Power cable

Make sure you add the recommended amount of antifreeze and purified water into the water tank before connecting the device to a power supply.



Use xTool X1

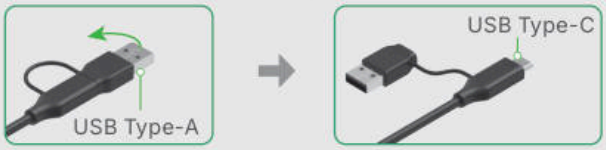
1 Get the xTool software

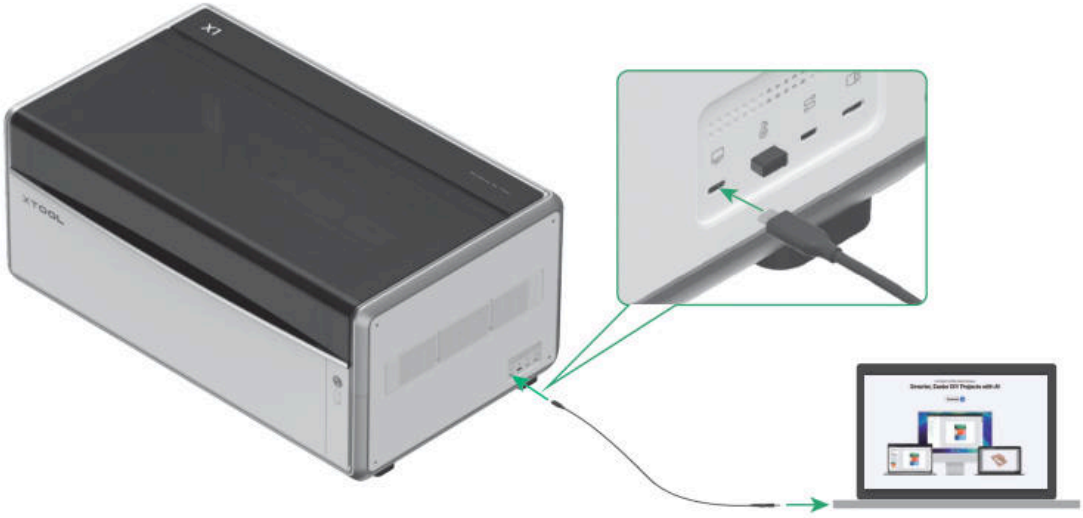


2 Connect xTool X1 to a computer


USB cable

The other end of the USB cable can be connected to a USB Type-A or Type-C port. Choose between the connectors based on your needs.





For details about how to use xTool software to operate xTool X1 for material processing, scan the QR code or visit **support.xtool.com/article/3123**.

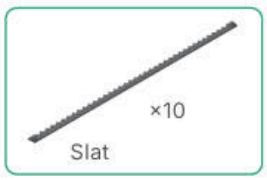
After connecting the device in xTool software, follow the on-screen instructions to complete the initial calibration.

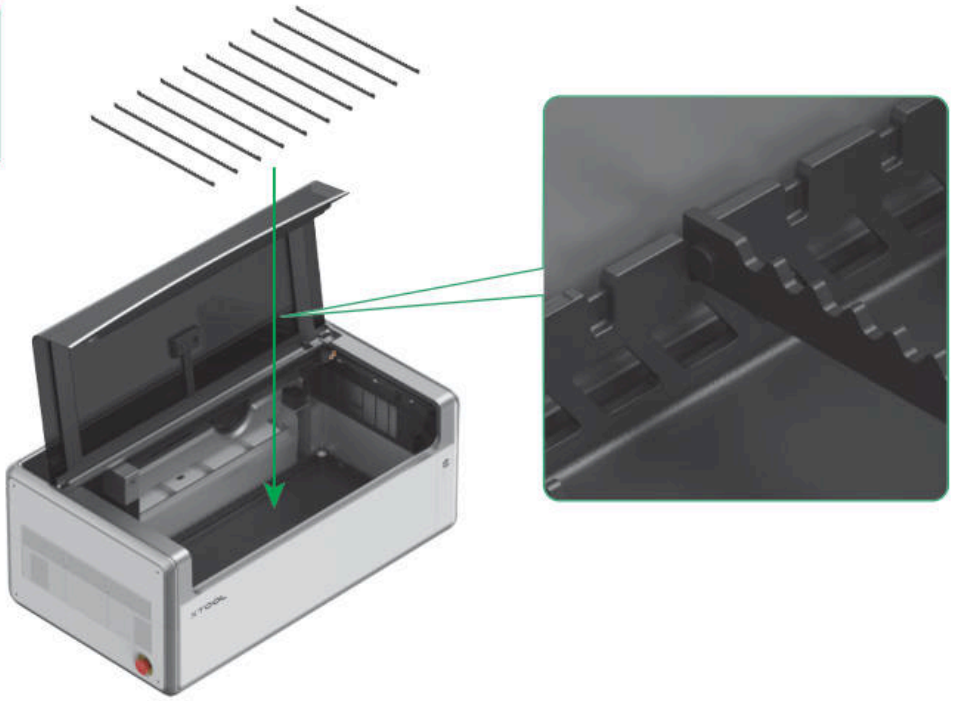
Secure a material / accessory

Three fixing items are included in the xTool X1 package for different scenarios. Use them as required.

Scenario 1 Secure a material

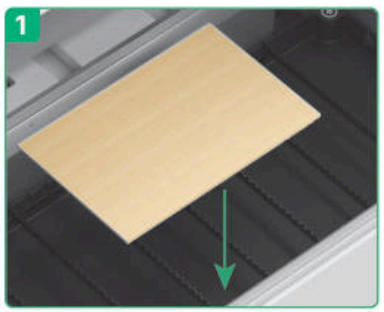
(1) Install slats or a honeycomb panel. (The honeycomb panel needs to be purchased separately. The following steps use slats as an example.)

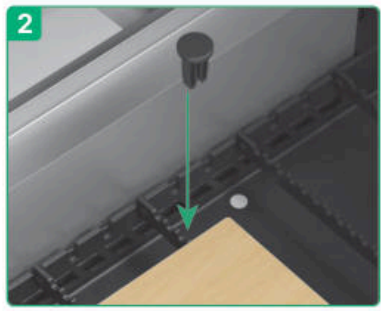


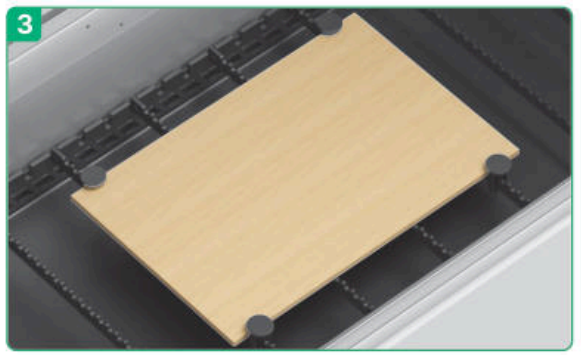


(2) Place the material and secure it by snapping the material pins on the slats.







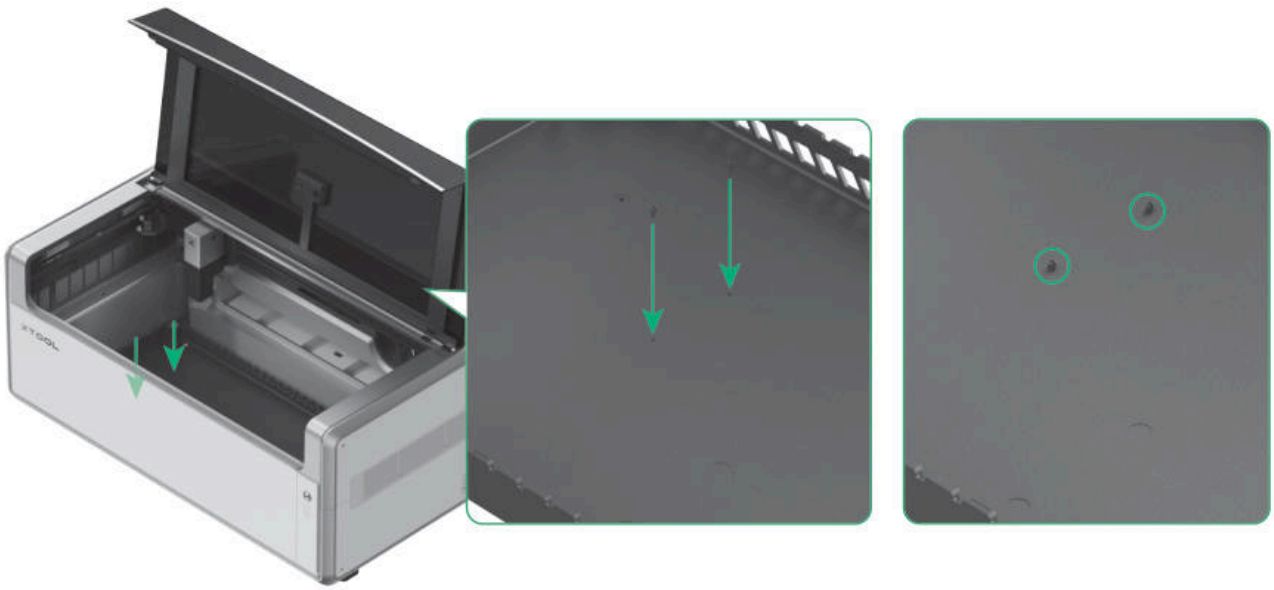


Scenario 2 Secure the rotary attachment

(1) Install the rotary attachment fixing pins.



Rotary attachment fixing pin

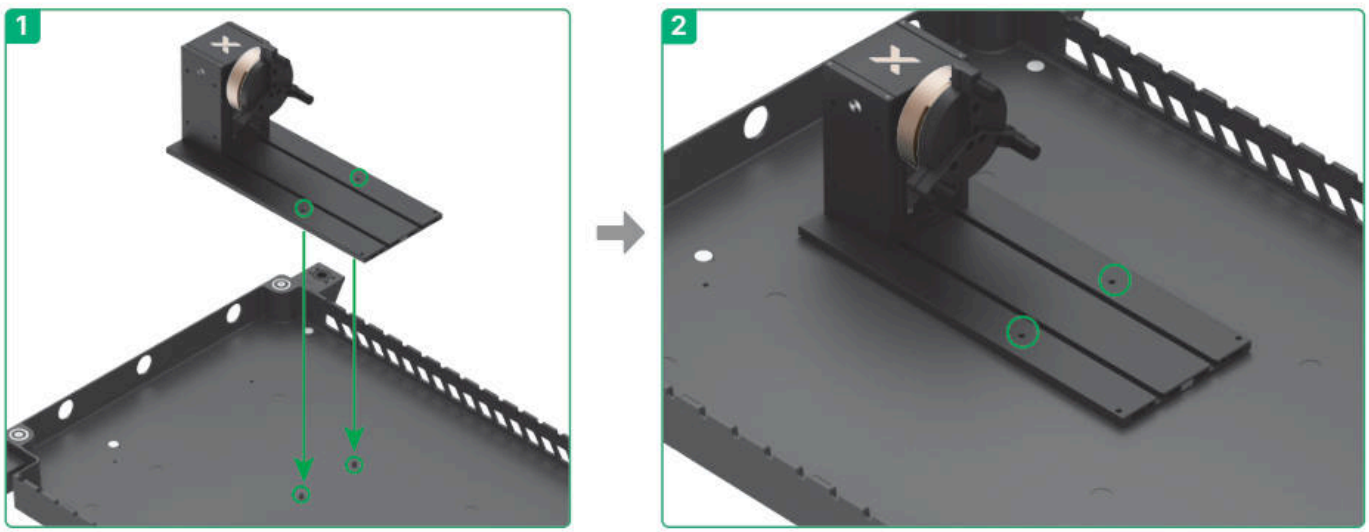


(2) Install the rotary attachment.

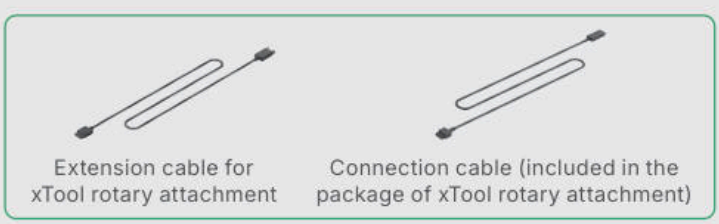
The following steps take xTool Rotary Attachment 3 as an example. Before installing, assemble the rotary attachment according to its user manual.



Rotary attachment (sold separately)

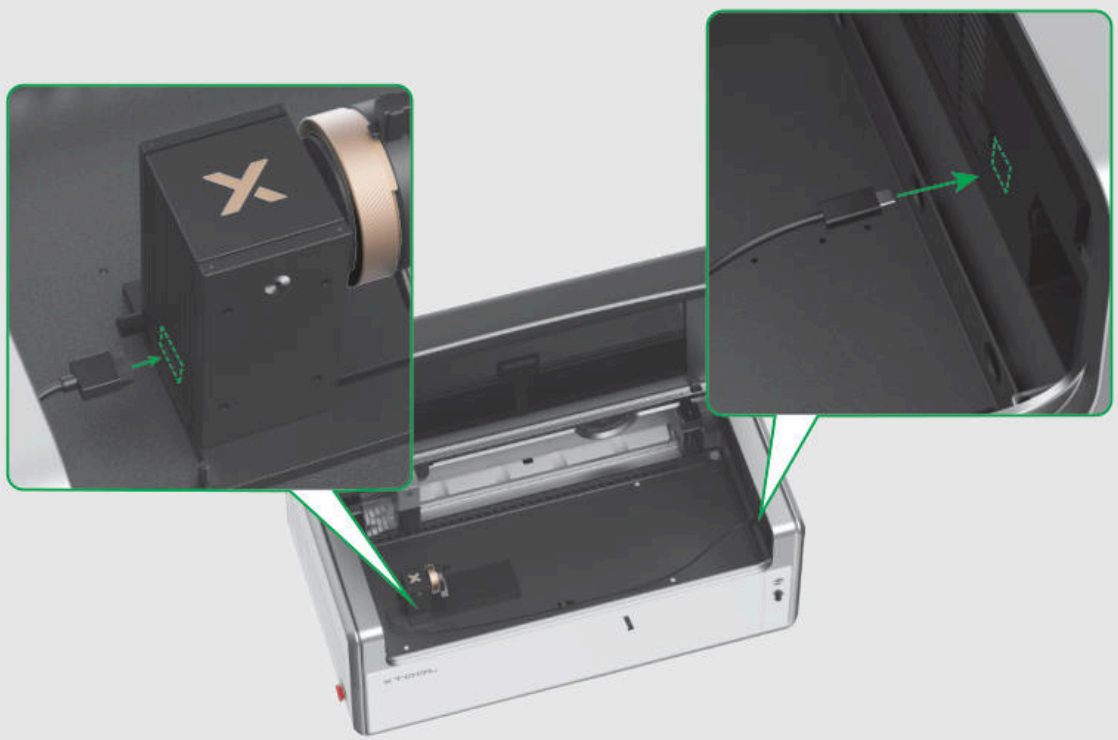


To connect xTool rotary attachment with xTool X1, use the connection cable of the rotary attachment and the extension cable of xTool X1 together.



(1) Connect the two cables.

(2) Plug the extension cable into the rotary attachment's port and the connection cable into the corresponding port on xTool X1.



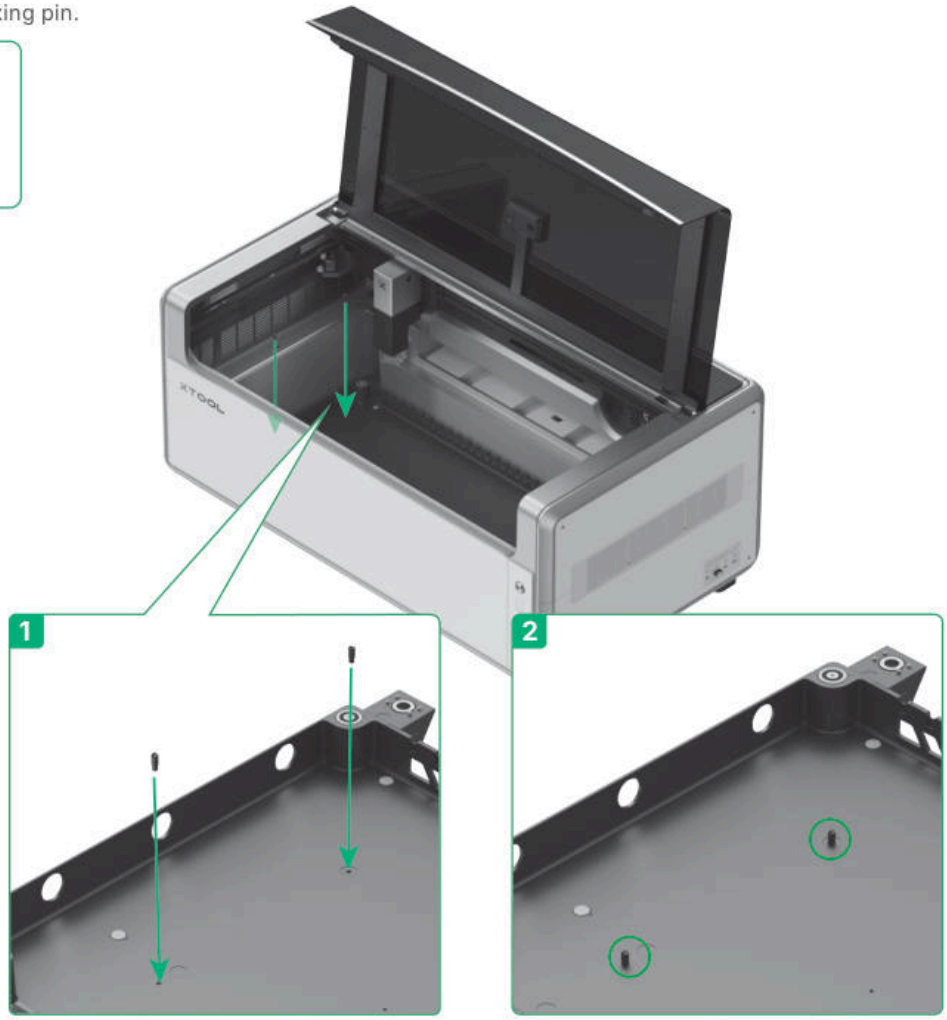
Scenario 3 Secure the frame of xTool Screen Printer

(1) Install the frame fixing pin.



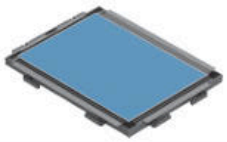
×2

Frame fixing pin

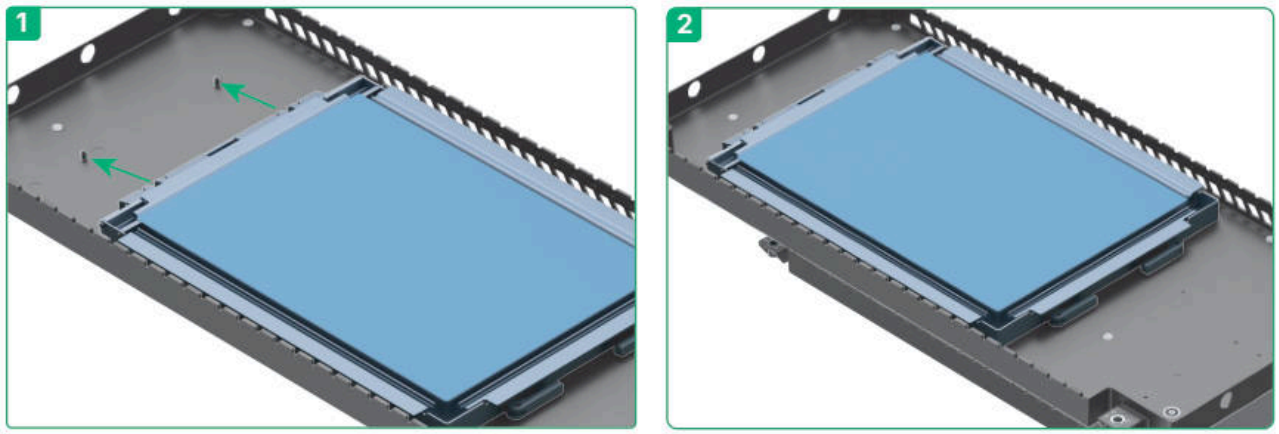


(2) Insert the frame with screen attached.

Before inserting the frame, ensure that you've mounted the screen on the frame according to the user manual of xTool Screen Printer, and that the frame is facing the correct direction.



Frame with screen attached (not included)

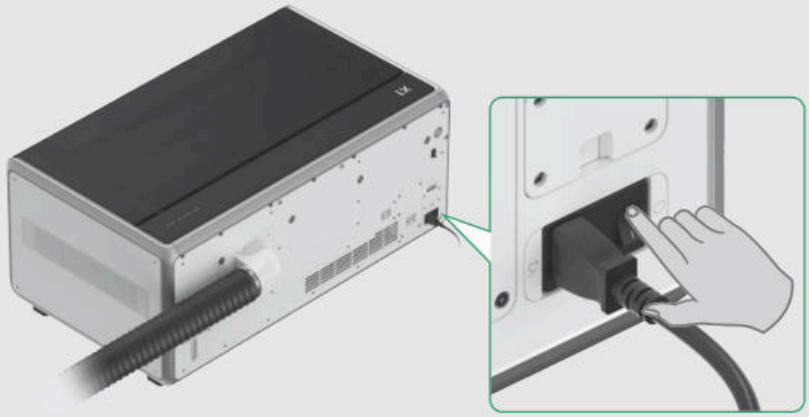


Indicator and buzzer description

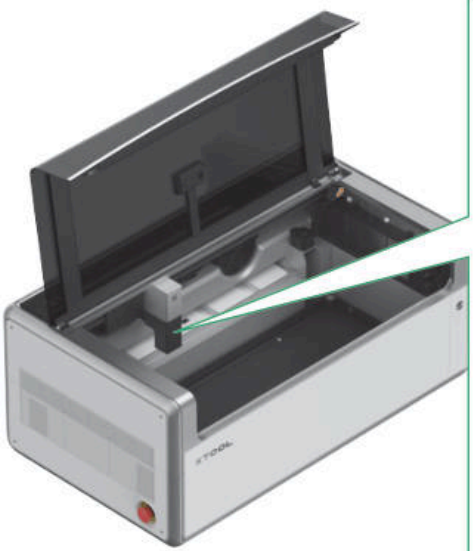
Annular indicator	Buzzer	Device status
 Blinking white	/	Initializing
 Breathing white	/	Sleeping
 Solid white	One beep	Standby, connected to the network
 Blinking blue	/	Configuring network
 Solid blue	/	Standby, not connected to the network
 Blinking yellow	/	Framing
 Solid yellow	/	Automated operations, such as automatic distance measurement and photo capture
 Blinking green	/	Processing
 Solid green	One beep	Ready to process
	/	Task paused
 Blinking red for 3 times	Three consecutive beeps	Exceptions occur
 Blinking red	Keeping buzzing	Serious exceptions occur
 Blinking purple	/	Calibrating
 Solid purple	/	Firmware updating

Maintenance

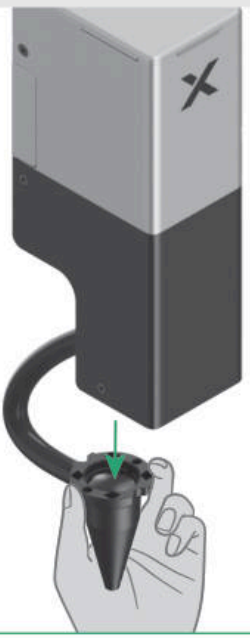
Power off the device before maintenance.



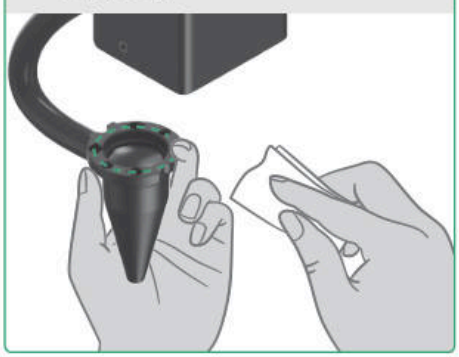
■ Clean the lens protector of the CO_2 laser module



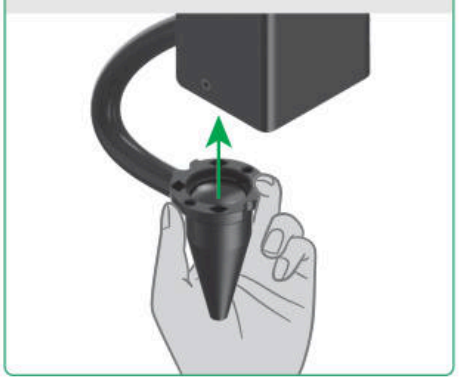
1 Detach the magnetic nozzle.



2 Clean the lens protector. You're advised to use xTool official cleaning tools, which are sold separately.



3 After cleaning, reinstall the nozzle, which will magnetically snap back into its original position.

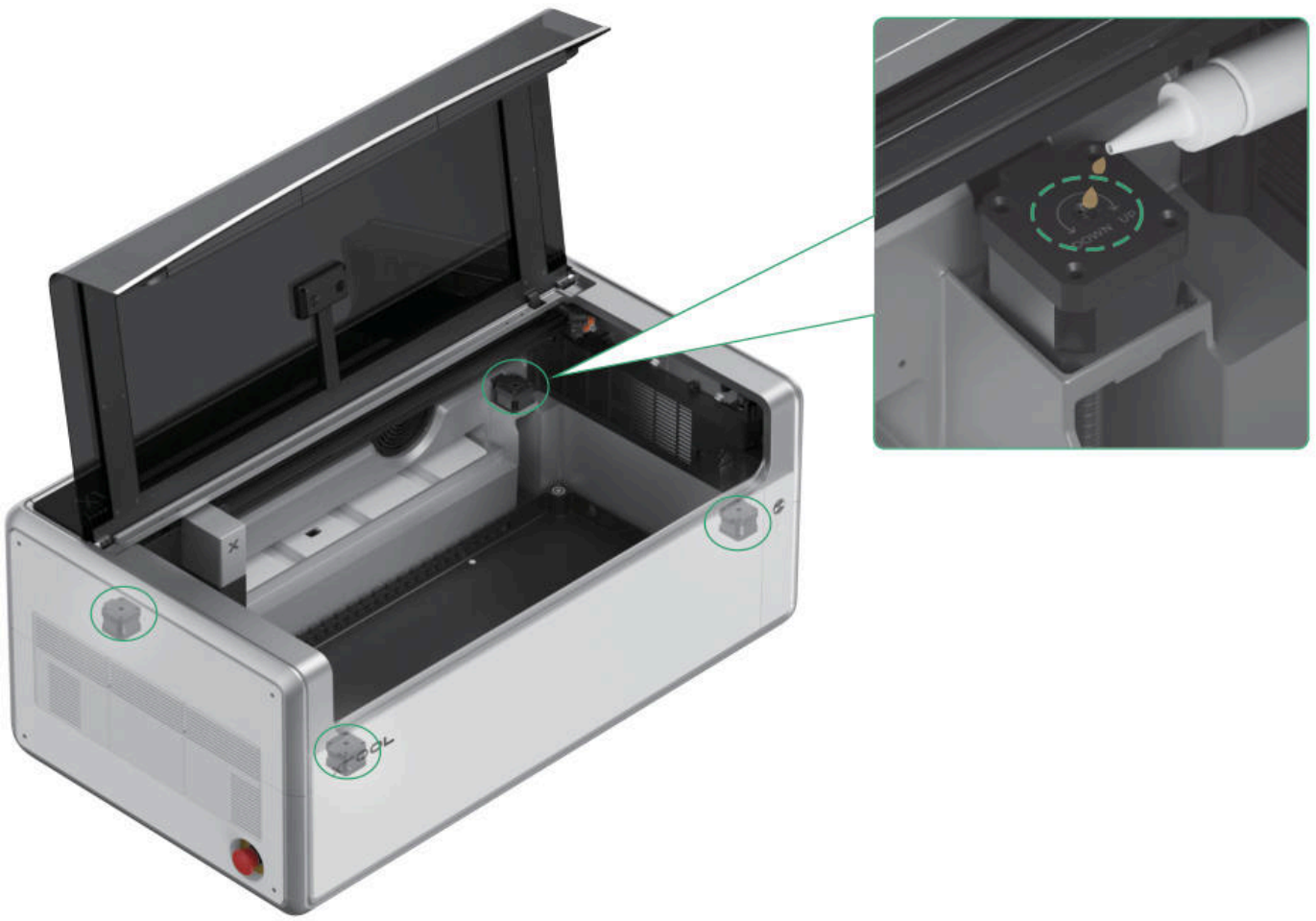


Avoid getting the lens protector dirty during any operation. If it becomes dirty, clean it promptly.

■ Lubricate the motors


Lubricant

If the device produces noticeable unusual noise, apply lubricating oil to the four motors to keep them operating smoothly. Apply about two drops of lubricating oil into the center screw hole of each motor.

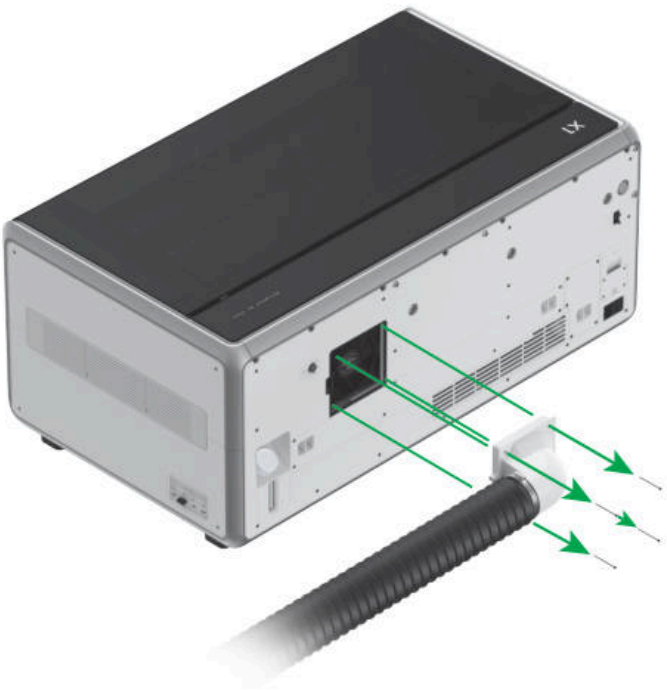


■ Clean the exhaust fan

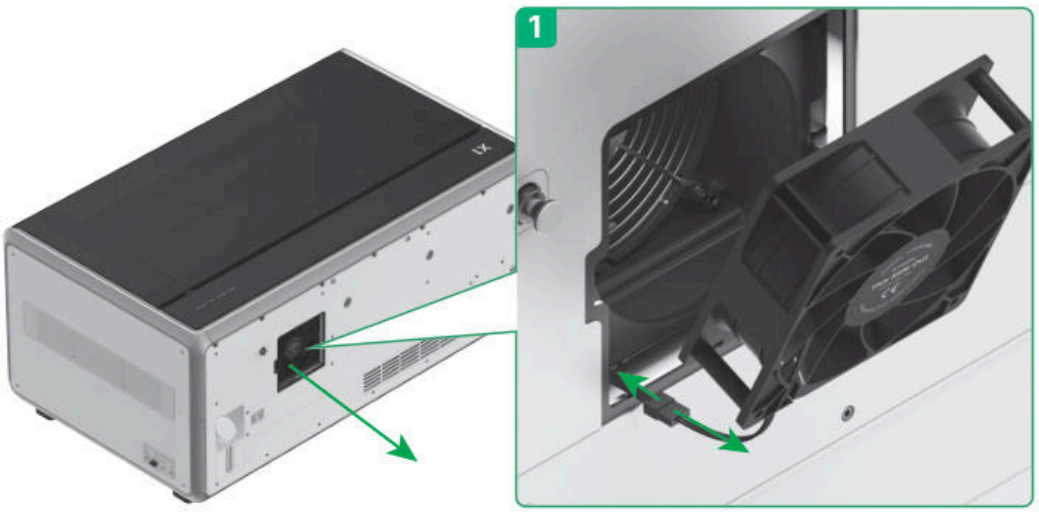


2-in-1 screwdriver (Phillips + hex): Use the hex end

(1) Remove the exhaust duct assembly.



(2) Disconnect the connector and take out the fan.





(3) Use a brush or other tools to clean the fan.



Brush (not included)

Do not rinse or immerse the fan in water.

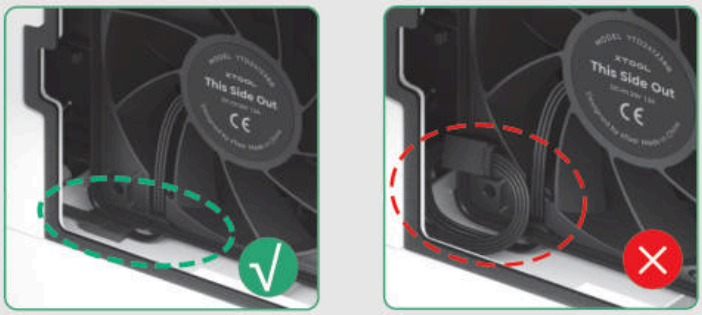


(4) Connect the connector and reinstall the fan.

Ensure the fan logo faces outward when reinstalling.



After installing the fan, arrange the cables properly to avoid overbending.



(5) Reinstall the exhaust duct assembly.

