

Artec3D LEO Ultimate 3D Printing Store User Guide

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THANK YOU FOR YOUR PURCHASE OF ARTEC LEO

If you need assistance with your scanner, contact your local reseller or the Artec support team: support@artec3d.com.

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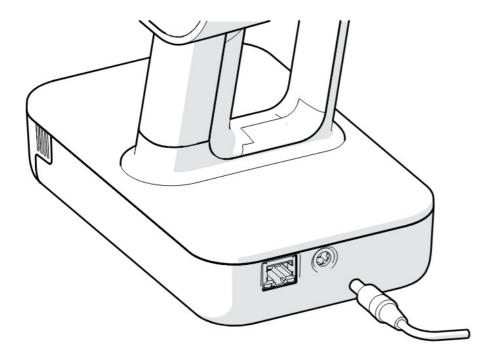
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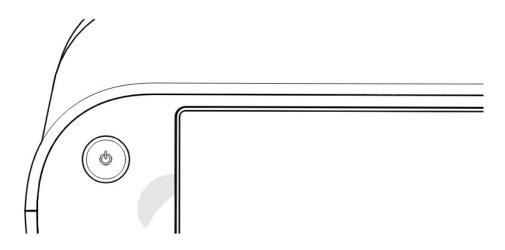
Charge & Turn On

To charge your Leo, plug in the power adapter.



Caution: Never use cables or adapters intended for other scanners or devices.

Press the power button.



A greeting screen with the license agreement will appear. Read it carefully and accept it.

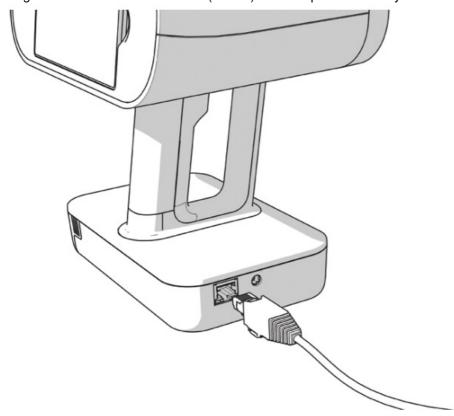
Internet Connection

The initial Leo activation requires an Internet connection; afterwards, you can use the scanner offline.

Wi-FiSelect a Wi-Fi network and specify the password.

Wired (Ethernet)

Plug in the cable. The connection (DHCP) will set up automatically



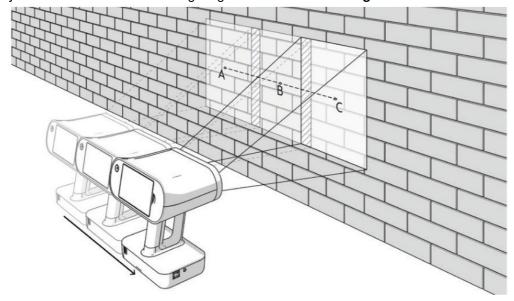
Activate Leo

To activate your Leo, you need a valid account at my.artec3d.com. Use the account your Artec reseller registered for you, or create a new account using either a mobile device or a computer.

Once you've logged in, name your Leo and you're ready to go.

How It Works

The scanner has two modes: Preview and Recording. Preview mode is designed for users to practice moving the device and holding it at the optimal distance, and to adjust settings. Pressing the red trigger button once will take you to Preview mode. Pressing it again activates **Recording mode** in which Leo records surfaces to a project.

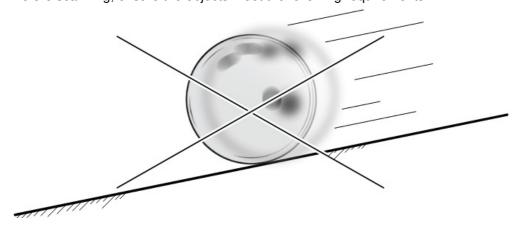


As you move the scanner, it captures a series of frames. Leo uses features in overlapping areas of these frames to automatically align them. This process is called tracking. The scanner displays a model built in real time and stores all frames to a project. Using a color-quality indicator, you can evaluate the captured area to determine which parts of the object require additional scanning.

TIPS: LEARNING TO SCAN

Objects

Before scanning, ensure the objects meet the following requirements:



- They must be stationary.
- They should have geometry and/or texture (color) features.
- They should have no black, transparent or reflective surfaces.

Preparations

If the object doesn't meet all the requirements, you can still scan it, but it may need preparation.

TIPS: LEARNING TO SCAN

Surface type

Black, transparent and reflective surfaces

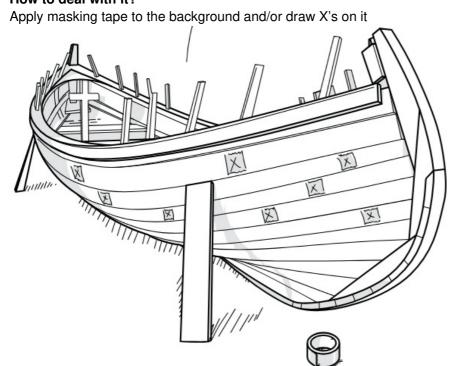




Surface type

Thin, flat or repetitive features

How to deal with it?

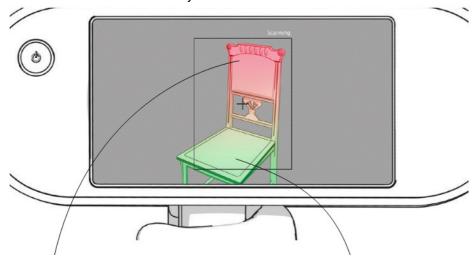


The scanner's field of view must encompass a sufficient surface area. To this end:

a. Pay closer attention to the object on the screen than to the actual object.

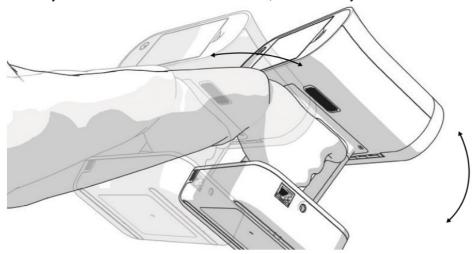
 $\ensuremath{\mathbf{RED}}$ — Area needs to be scanned further, possibly from a closer distance

GREEN — Scanned sufficiently

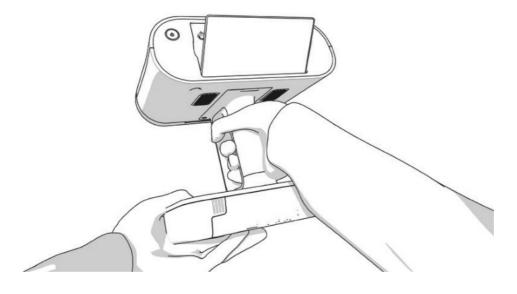


Focus on Display & Be Flexible

c. Move your wrist to turn and tilt the scanner, as necessary.

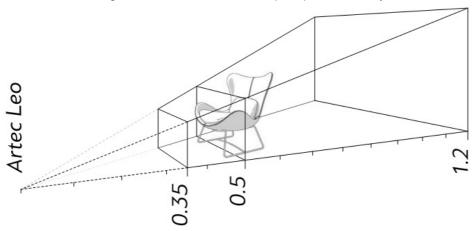


d. Use the tiltable display.



Optimal Distance

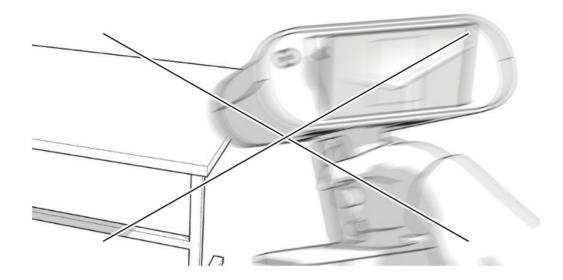
Maintain an average distance of about 0.5 m (1.5ft) from the object.



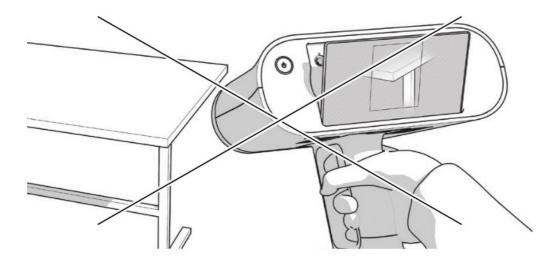
Scan Background

Even though scanning extraneous surfaces appears unhelpful, it may improve tracking (alignment of sequentially captured frames)

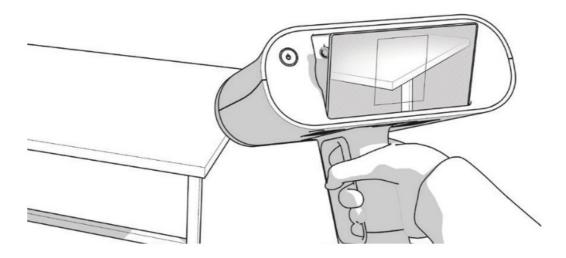
Troubleshooting Lost Tracking



Troubleshooting Lost Tracking



Avoid insufficient surface area in the field of view



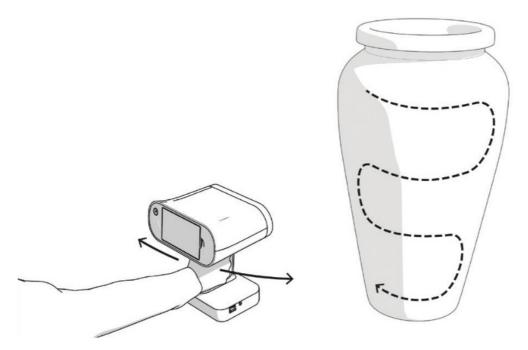
Keep sufficient surface area in the field of view at all times

To resume scanning, direct Leo at a region you've already captured, maintaining the original scanner orientation toward this region. Then, once Leo recognizes it, press the red button.

Scan

To begin scanning,

- 1. Press the red trigger button on the handle to open a preview.
- 2. Direct the scanner at the object while watching the screen.
- 3. Press the button once more to start recording.
- 4. Press the red button and either scan the remaining surfaces or tap Close.



5. Move the scanner over the surface. Gradually "sweep" the entire object or its reachable parts, ensuring the lack of missing spots.

Obtain Model

Once the scans are ready, you can process them in Artec Studio by cropping them, creating a model, simplifying its mesh structure and texturing it. You can then measure and annotate the model.

To import data from Leo to Artec Studio,

- Ensure that both Leo and your computer are connected to the same network and use the same my.artec3d.com account or one from the Trusted accounts list.
- In Artec Studio, select File → Import → Leo project (connect to scanner).

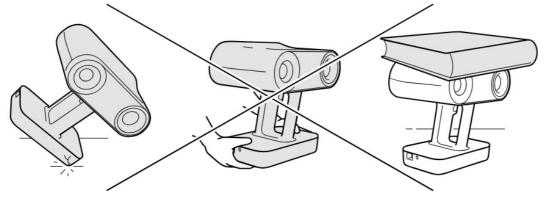
To **obtain a model**, use Autopilot. In complex cases, manual processing may yield better results.

Consult the Artec Studio User Guide for details (docs.artec-group.com).

SAFETY AND HANDLING INFORMATION

Safe Handling

Avoid dropping, vibrating or applying pressure to the scanner.

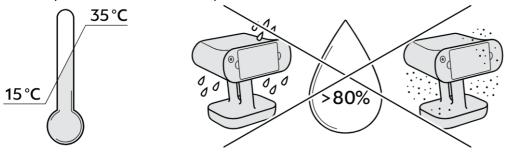


Always grip the scanner by its handle; use your other hand for extra support when necessary.

Recommended Operating Conditions

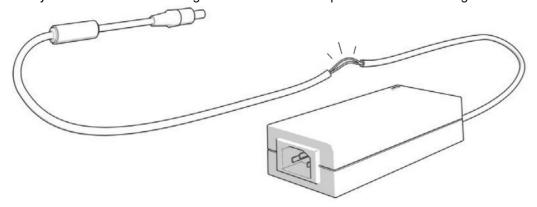
temperatures between +15°C and +35°C (59°F and 95°F) with humidity of up to 80%.

Avoid exposure to condensation, liquid or dust.

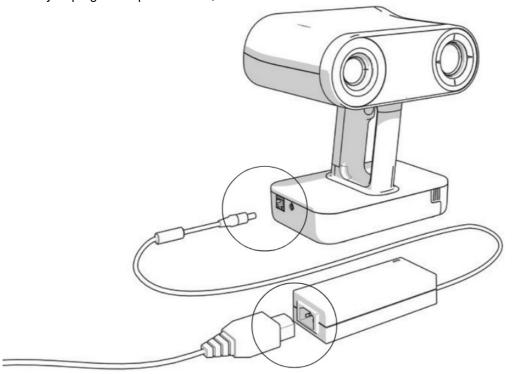


Electrical Safety

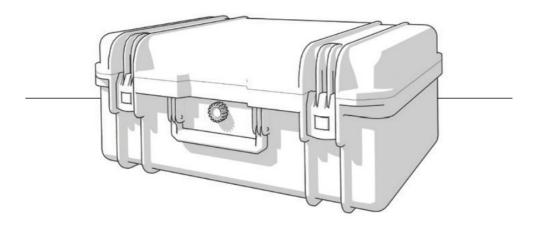
Use only the standard power adapter that comes with Leo. Protect the cables from being stepped on or crushed. Always check cables for damage before use. Never operate Leo with damaged cables.



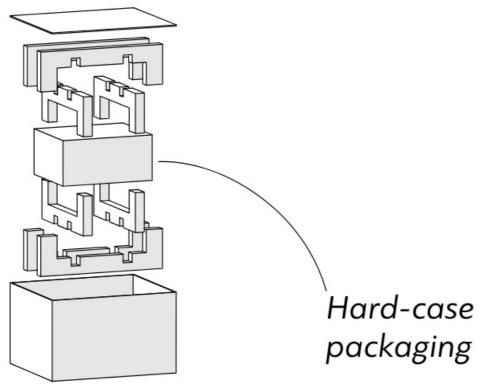
Before you plug in the power cable, check the connection in the locations marked below.



Transportation



When transporting your Leo and its original accessories, use the hard case. Don't store any extraneous items in this case. Don't alter the case or remove any foam sections.



For cargo shipping, we suggest using the original wooden box your scanner arrived in. Before putting the hard-case packaging in the box, ensure all foam sections are correctly installed. Safely store this box for future use.

Optics

Avoid touching the scanner's optical components.



More Information

This guide provides only basic recommendations for operating Leo. For additional information, consult the comprehensive User Guide for Leo and other Artec products (docs.artec-group.com), or visit the Support Center (artecgroup.zendesk.com).

Find more information:

docs.artec-group.com (manuals) artecgroup.zendesk.com (FAQs, videos and articles)



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Documents / Resources



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References

- Artec Documentation
- Omy.artec3d
- Professional 3D Scanners | Artec 3D | Best Industrial Laser 3D Scanning Solutions
- User Manual

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