



Noura 3D Scanner

Instructions for Use

Version 1.0 | 5/1/2026



Preserve the Fit. Perfect the Outcome.



Document Control

Field	Draft Entry
Product name	Noura 3D Scanner
Software	NouraSoft
Manufacturer	Elemental Printing
Country of Origin	Norway
Document type	Instructions for Use
Intended use statement	Internal geometry capture and digital documentation of prosthetic sockets, hand casts, test sockets, and similar cylindrical or semi-enclosed clinical objects.
Document status	Immediate release
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Product Summary and Specifications

The Noura 3D Scanner is a desktop 3D scanner designed to help clinics, labs, and fabrication teams capture internal geometry that can be difficult to document with traditional 3D scanners. NouraSoft supports scan review and export to .obj or .stl format for downstream documentation and workflow integration.

Specification	Value	Specification	Value
Maximum overall height	59 in	Overall width	13 in
Overall length	21 in	Minimum scanning diameter	2.5 in
Maximum scanning height	23 in	Export format	.obj, .stl
Software	NouraSoft	Power input	110V or 220V
Scanning accuracy	Down to 0.3 mm	Primary use environment	Clinic, lab, or fabrication workspace



1. Intended Purpose

Noura is intended to capture internal 3D geometry of prosthetic sockets, hand casts, test sockets, and similar cylindrical or semi-enclosed objects for documentation, digital workflow review, and downstream fabrication planning.

2. Intended Users

The system is intended for trained prosthetists, orthotists, technicians, central fabrication personnel, and qualified clinic or lab staff familiar with 3D scanning workflows and patient data handling requirements.

3. Operating Environment

Use Noura indoors on a stable, level surface with adequate space around the device, normal room lighting, and a clean workspace. Avoid direct sunlight, excessive vibration, water, fluids, excessive dust, and strong electromagnetic interference where possible. The operating environment should be between 60-80°F (15-27°C) with humidity between 10-40% RH.

4. Electrical Requirements

Connect only to a compatible grounded power source. The product is intended for 110V or 220V operation as configured and labeled. Verify the correct power cable, plug, adapter, and local voltage before use. Do not use damaged cords or loose outlets.

The following electrical components that make up the Noura 3D Scanner are compliant with FCC Part 15B EMC:

- [Power Source:](#)
 - Brand - ALITOVE
 - Connector Type - Barrel Connector
 - Input Voltage - 110V AC
 - Amperage - 10 A
 - Wattage - 120W
 - [Compliance Information](#)
- Main Board:
 - Raspberry Pi 5, 4GB
 - [Compliance Information](#)
- Touchscreen:
 - Raspberry Pi Touch Display 2, 7in
 - [Compliance Information](#)
- Laser:
 - Sold By: [Aideepen Office Store](#)
 - Purchased From: [AliExpress](#)
 - Description: 6mm 10mW Green Small Laser Head Module Dot/Line/Cross 3V-5V Adjustable Focal Length 520nm Laser Diode Head Industrial Class
- Camera:
 - 12MP 160Degree FF
 - Sold By: DeHong Electronic Store
 - Purchased From: AliExpress
- Motors:
 - Nema 17 Stepper, Nema 11 Stepper
- Leveling Sensor:
 - PINDA Auto-leveling Sensor Probe
 - Sold By: FYSETC Official Store
 - Purchased From: [AliExpress](#)



5. Training Requirement

Operators should be trained in scanner setup, safe object placement, NouraSoft workflow, data export, scan quality review, and cleaning/maintenance procedures before independent use. Please see our Unboxing Video and Getting Started Video for initial operator training.

For all training documentation, visit: <https://www.ascentfab.com/noura-3d-scanner-documentation>

6. Safety Warnings and Precautions

- **Electrical safety:** Do not operate the scanner with a damaged power cable, damaged housing, exposed wiring, liquid exposure, burning smell, smoke, or unusual heat. Disconnect power and contact support.
- **Mechanical safety:** Place the scanner on a stable surface. Keep hands, hair, loose clothing, jewelry, and tools away from moving or rotating components during operation.
- **Object security:** Ensure the socket, cast, or object is stable before scanning. Do not scan objects that could fall, shatter, or damage the scanner.
- **Liquid exposure:** Keep the scanner, power supply, computer, and accessories away from water, cleaning fluids, plaster slurry, and other liquids.
- **No disassembly:** Do not disassemble, modify, or attempt unauthorized repairs. Unauthorized service may create safety risks and will void the warranty.
- **Software integrity:** Use only authorized NouraSoft installers, updates, and approved plug-ins. Unauthorized software may cause instability, inaccurate data, or data loss.
- **Patient data:** Scan files and images may contain patient-identifiable information. Follow HIPAA or other applicable privacy laws and local clinic policies.
- **Clinical judgment:** Noura scan output should be reviewed by a qualified clinician or technician. Do not rely on raw scan output without quality review and clinical/fabrication validation.
- **Children and pets:** Keep scanner components, cables, packaging, accessories, and small parts away from children and animals.

7. Package Contents

- Noura 3D Scanner main unit
- Power cable and/or power supply appropriate for destination market
- Calibration board, or calibration cup
- Object support fixture - four arm cast clamp
- QR code which sends you to the documentation page for:
 - NouraSoft installer/download instructions (you will be taken to a WeTransfer link to download the .exe file)
 - Unboxing and Getting Started card
 - Warranty and IFU documentation

8. Optional Materials and Accessories

- Scanning spray for reflective, translucent, dark, or difficult surfaces.
- Computer meeting the final NouraSoft minimum specifications - general laptop or desktop should suffice, contact us if having issues with NouraSoft or downloading scans from the Noura Scanner.
- USB memory card/stick
- Four hole attachment component
- Surge protector or uninterruptible power supply where appropriate.
- Original packaging for transport/storage and any need for return.



9. Setup Procedure

- Unpack the scanner carefully and inspect for visible damage. Retain packaging for service shipment.
- Place the scanner on a stable, level work surface with adequate clearance around the unit.
- Confirm that the object to be scanned is within the dimensional limits: minimum scanning diameter 2.5 in and maximum scanning height 23 in.
- Connect the scanner to the appropriate 110V or 220V power source as labeled.
- Download scans using a USB storage device - not included in the sale of the unit.
- Perform calibration or alignment if prompted or if scan quality appears reduced.
- Confirm the workspace is clean, dry, and free of loose materials that could interfere with scanning.
- See the Getting Started Video

10. Preparing the Object for Scanning

- Clean loose debris, plaster dust, or residue from the object before scanning.
- For highly reflective, dark, translucent, or low-feature surfaces, apply scanning spray according to the spray manufacturer instructions and clinic policy.
- Ensure any clinical marks, trimlines, bony anatomy references, or alignment indicators are visible if they need to be captured.
- Position the object so the internal surface is accessible to the scanner head and remains stable throughout the scan.
- Do not overload, force, or clamp the object in a way that deforms the geometry being captured.

11. Scanning Procedure

See [Getting Started Video](#)

12. Scan Quality Acceptance Checklist

- Internal geometry appears continuous in the regions required for clinical or fabrication use.
- Trimlines, bony landmarks, and visible markings are captured if they are part of the intended record.
- No major holes, spikes, inverted surfaces, or obvious distortion in critical fit regions.
- Object height and diameter are consistent with expected physical dimensions.
- Scan has been saved and backed up according to clinic policy.
- A qualified clinician or technician has reviewed the scan before using it for design or fabrication decisions.

13. NouraSoft Workflow

- In NouraSoft, Import the scan by choosing one of the following:
 - Open STL/OBJ - You can choose to scan your device without color and open one of these file types
 - Open OBJ Folder - You can choose to scan your device with color and open the entire OBJ folder
- See the NouraSoft Demo Video
- Perform any required mesh cleanup and quality checks.
- Select Export and choose .obj format.
- Save to the approved project folder or secure storage location.
- Open or import the .obj file in the intended downstream software to confirm scale, orientation, and completeness before production use.



14. Cleaning and Routine Maintenance

- **Before cleaning:** Power down the scanner and disconnect power if cleaning near electrical components.
- **Exterior cleaning:** Wipe exterior surfaces with a soft, dry or lightly damp lint-free cloth. Do not spray cleaner directly into openings, motors, lenses, connectors, or electronics.
- **Optical surfaces:** Use only approved lens-cleaning methods or manufacturer-approved microfiber cloth. Do not use abrasive cloths or harsh solvents.
- **Debris control:** Keep plaster dust, scanning spray residue, and debris away from moving components and optical surfaces.
- **Calibration:** Perform calibration at the onset of first use, after transport, after impact, or when scan quality changes.
- **Storage:** Store indoors in a cool, dry location away from direct sunlight, liquids, dust, and vibration.

15. Limitations of Use

- Noura is a 3D scanner and digital documentation tool, not a substitute for clinical evaluation, device fitting, or professional judgment.
- Accuracy can be affected by surface properties, object movement, software settings, calibration, lighting, vibration, operator technique, and object geometry.
- Do not use scans for fabrication without verifying geometry, scale, orientation, and clinical suitability.
- Do not operate the scanner outside its labeled electrical, dimensional, environmental, or mechanical limits.

16. Support and Service

For support, warranty claims, replacement parts, NouraSoft access, or service questions, contact:

- Company: Ascent Fabrication, Joe Fairley
- Email: support@ascentfab.com
- Phone: (USA) +1 518-430-2034
- Serial number location: On back of machine above power port