The Future of
Orthotic & Prosthetic Industry
Streamlining 3D Scanning to Fabrication

SHINING 3D

Main O&P Applications

Orthoses

Modify the structural or functional characteristics of patients neuro-muscular and skeletal systems.

Insoles, Braces, Splints, AFO, SMO, Spinal jackets and cranial helmets

Prostheses

Replicate the structural or functional characteristics of patients limb loss;

Acquire the shape of contacting surfaces to design for better fit

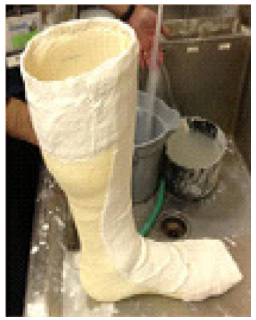
Traditional Manual Measurement Method

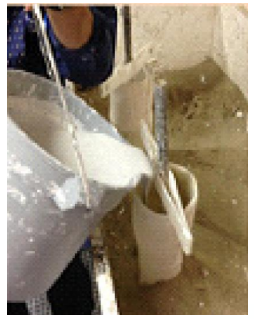
Step 1 → Step 2 → Step 3 → Step 4 → Step 5 → Step 6

Taking a measurement of the body segment

Taking a negative Impression

Creating a positive model



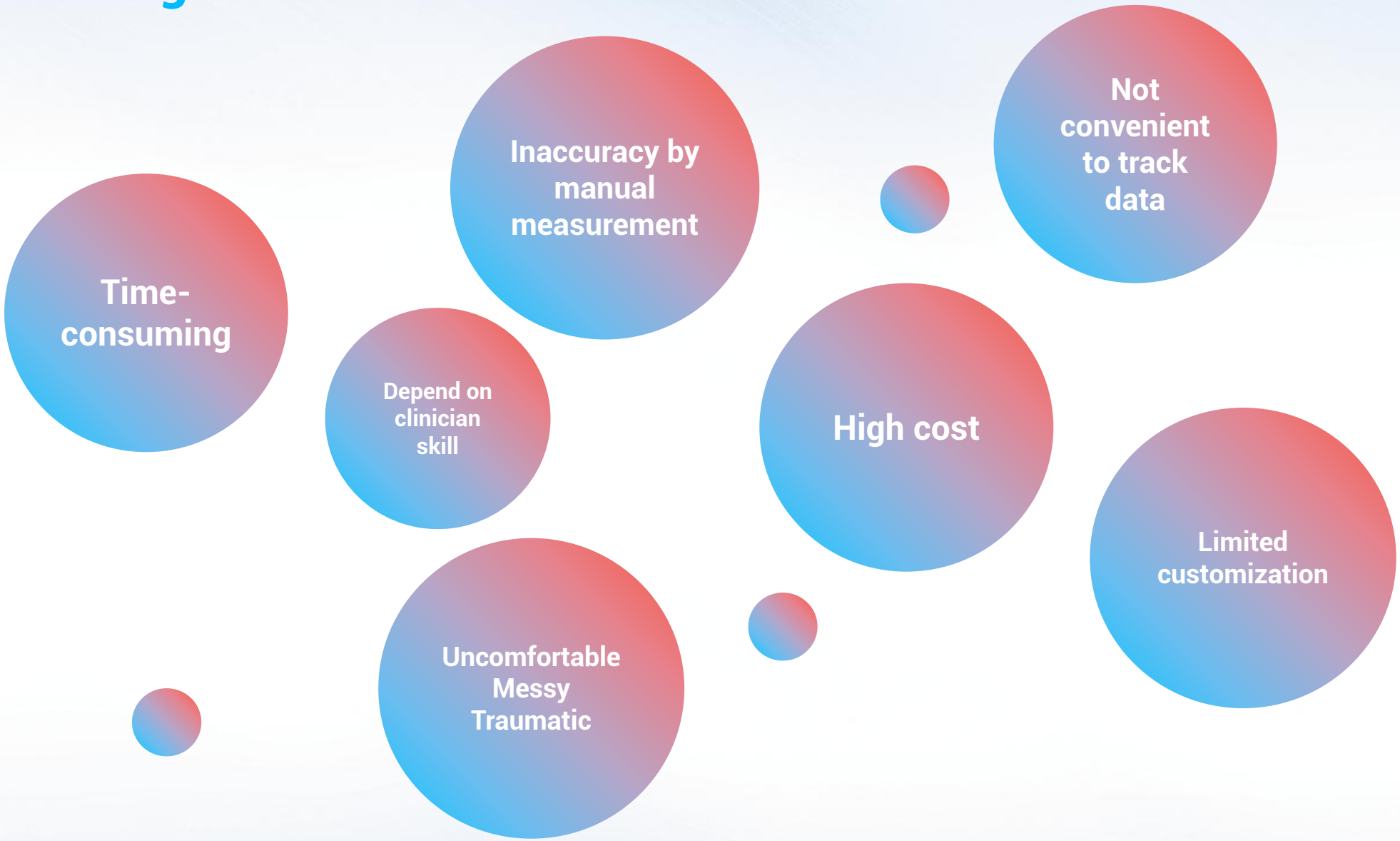


Modifying the positive model

Shaping the orthosis or prosthetic socket

Fitting to the patient

Challenges of Traditional Method in O&P



SHINING 3D Digitizing Method

Step 1

3D scan of patient's geometry

Step 2

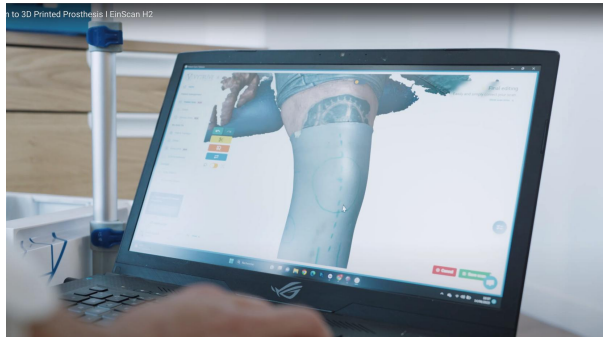
Geometry modification and covert to orthosis

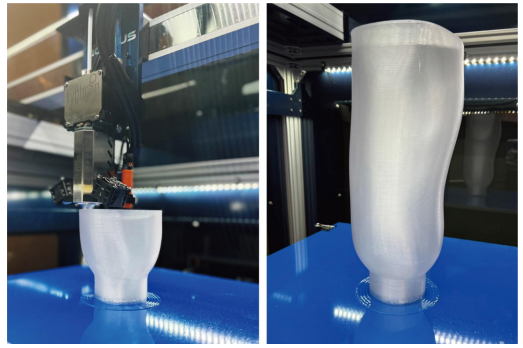
Step 3

3D print of the orthosis

Step 4

Fitting to the patient

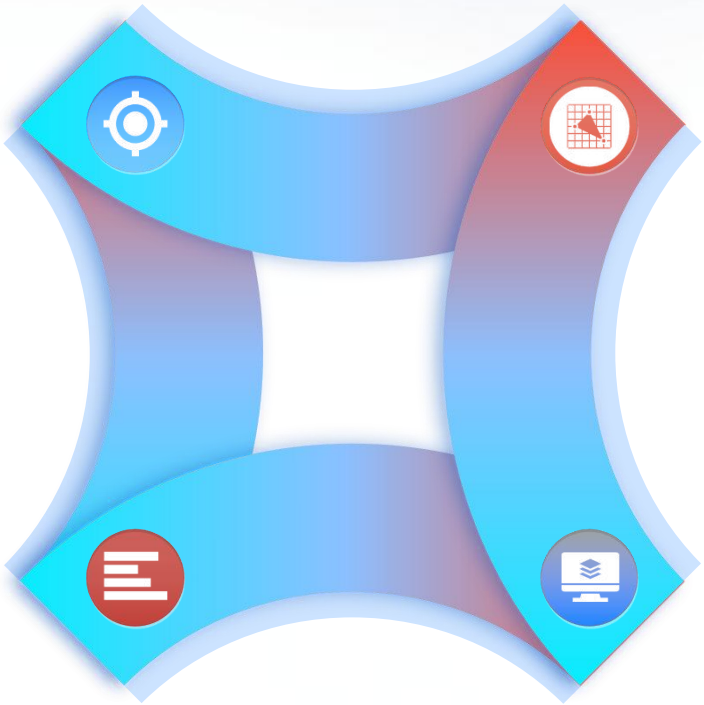




Compare to Other 3D Digital Solutions

Highly Accurate Fine Details

Multiple Alignment Options
Better Tracking



Comprehensive
Mesh Editing Tools

No Extra PCs & Tablets

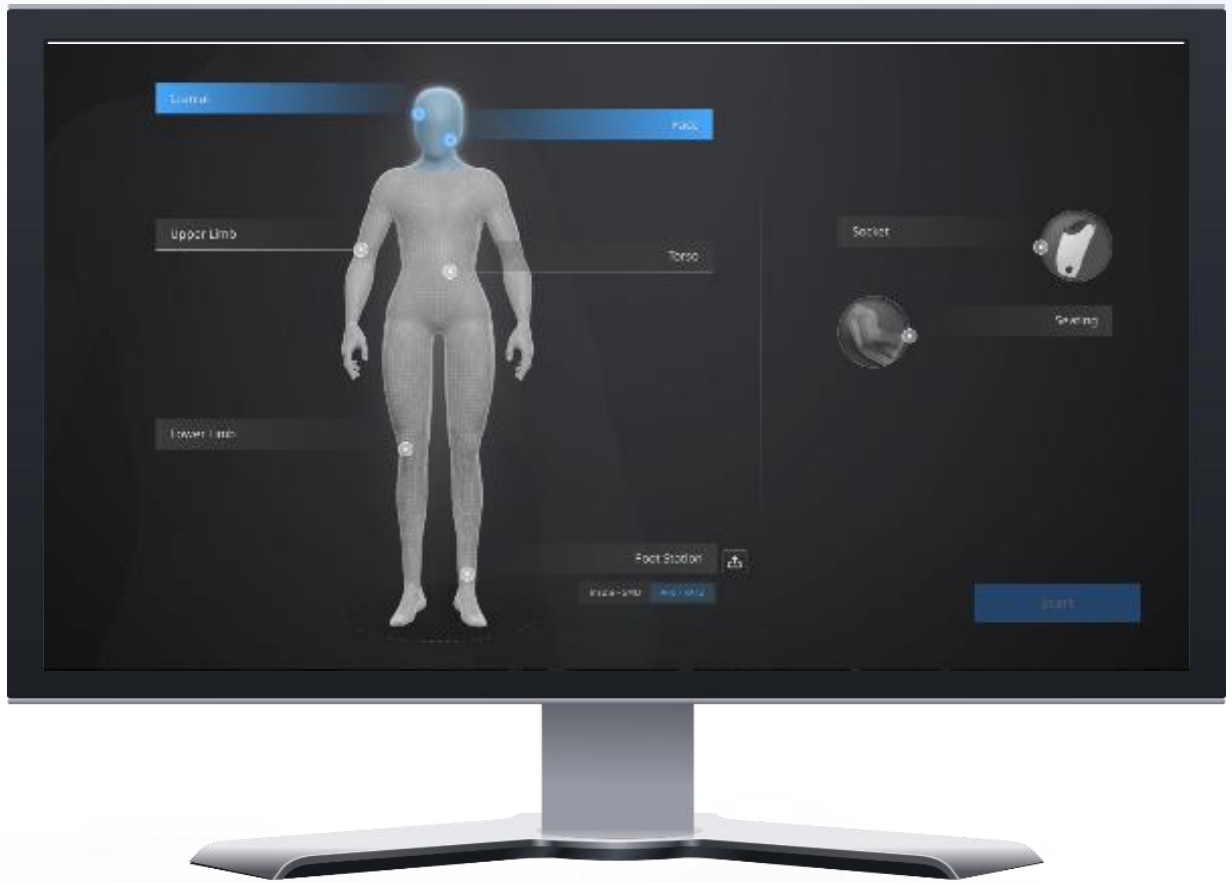
Meet SHINING 3D Scanners for O&P

EinScan H2

- Hybrid light source: White LED + Infrared light
- Efficient Data Acquisition
- Easy to Use, plug and play
- Non-contact Scanning
- Photorealistic Texture
- SDK Support

Meet SHINING 3D Scan Software for O&P

EXScan O&P



- Streamline the 3D Digitization of Human Body Scan
- Intuitive & User-Friendly Workflow
- Versatile Scanning Modes
- High-Quality 3D Data Output
- Integrated with EinScan H2

EinScan Medixa

All-in-One 3D Scanner Creates for O&P Care: Efficient, Precise, Comfort

Comfort for Patients.
Confidence for Clinicians.

Wireless &
Standalone

Tailored Workflow

Contact-Free &
Patient-Friendly

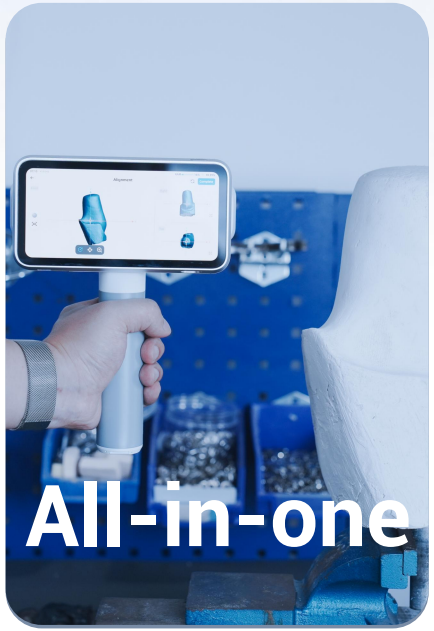
High-Resolution
Texture Capture

Flexible Integration
& Customization

Versatile &
Personalized

Movement
Compensation

High-Quality
3D Data Output

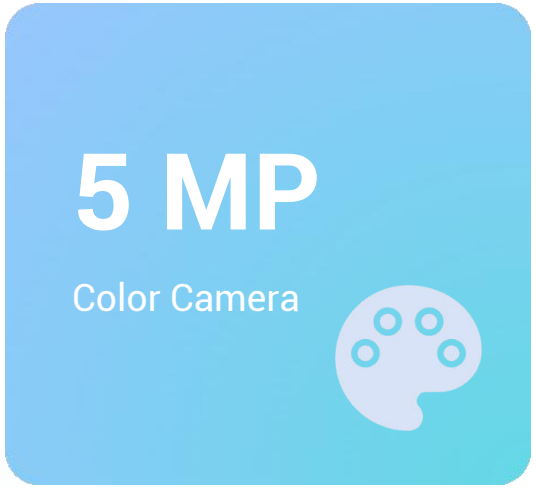

All-in-one


Tailored Software


High-Quality
3D Data Output


Versatile
Scan Modes
Socket
Seatings
Foam Box


Contact-
Free
Patient-Friendly

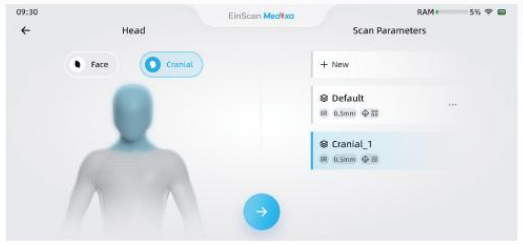

5 MP
Color Camera

Compact All-in-one Design for Streamlined Efficiency

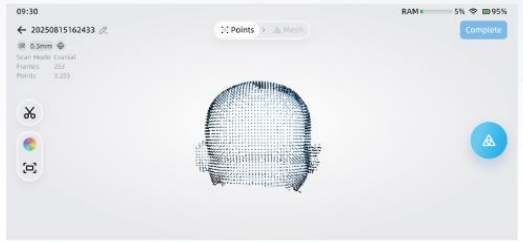
- **Lightweight & portable:** Easy to carry and use in the clinic or on-site.
- **Standalone operation:** No need for an external computer
- **Quick & convenient:** Less time spent on the scanning process, improving patient throughput.

Tailored Workflow for O&P Clinician

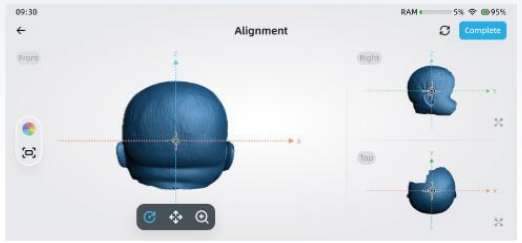
Scan presets selection



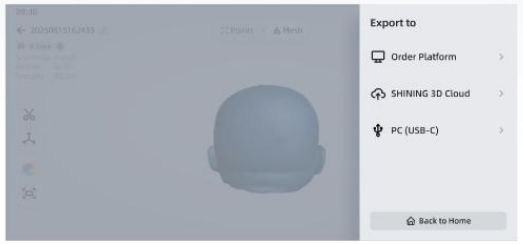
Scan



Alignment



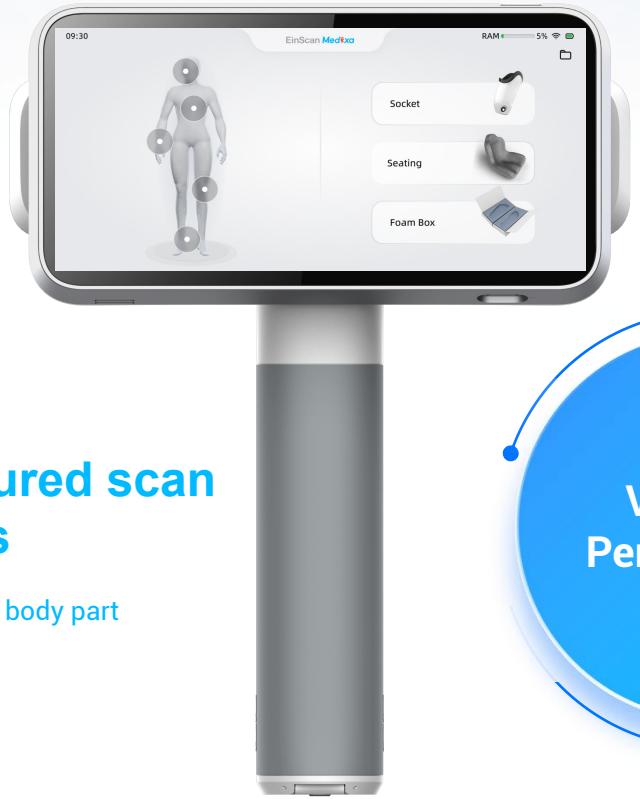
Data export

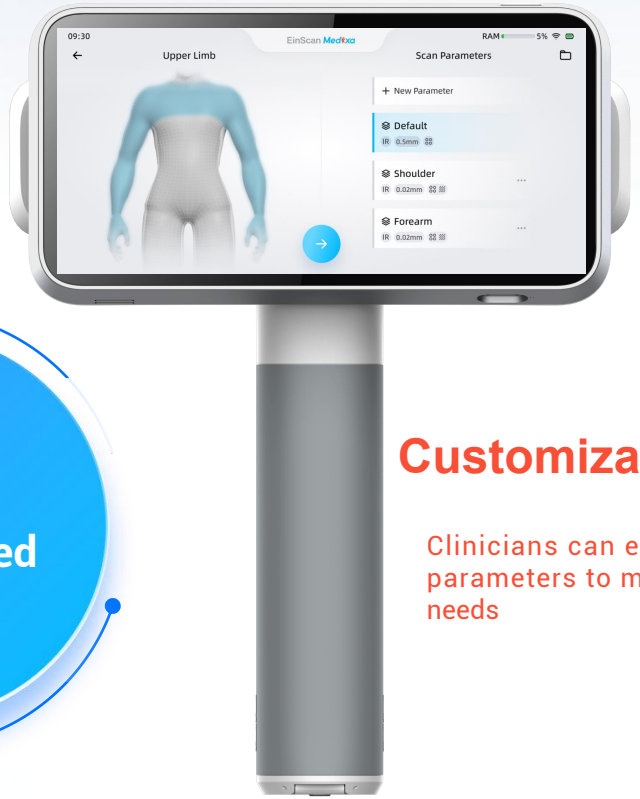


01 02 03 04

- Intuitive, step-by-step interface
- Designed specifically for O&P workflows, streamlining clinical operations.
- Reduces the learning curve for non-technical staff and clinicians
- Reduce appointment times

Versatile Scanning Modes with Customizable Settings





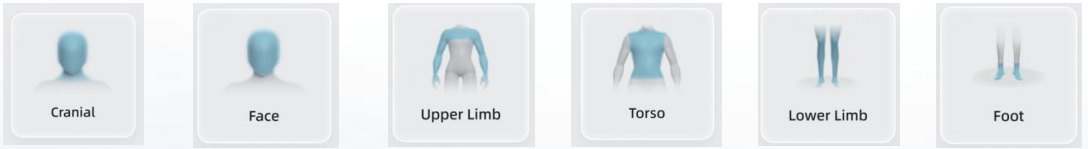
Pre-configured scan parameters

For different human body part

Versatile Personalized

Customizable settings

Clinicians can easily adjust scan parameters to meet their specific needs



Patient Friendly with Contact-Free Scanning

- Use white and infrared lights to capture high-quality 3D body models without physical contact.
- Non-invasive scanning reduces patient stress, especially for children and elderly patients.

Faster

Cleaner

More comfortable

Compared to the traditional plaster casting methods.

Movement Compensation

Advanced algorithms compensate for slight movement from the patient during scanning, especially when capturing 3D data of infant heads for cranial helmets or torsos affected by breathing.

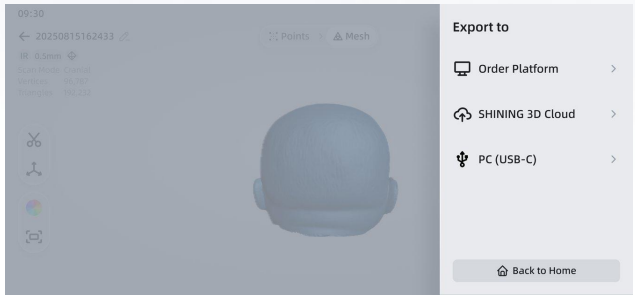
High Resolution Texture Capture

Equipped with a **5MP texture camera**, EinScan Medixa captures both precision geometry, and high-resolution surface textures drawn by clinicians, enabling accurate 3D modeling for customized O&P devices.

High-Quality 3D Data Output

- **Pre-set scanning parameters** simplify workflows and minimize manual post-processing
- Delivering **highly precise** 3D models in **STL, OBJ, and PLY** formats.
- Integrate seamlessly with clinical CAD/CAM and O&P design software.

Flexible Intergration and Customization



01 Smooth data transfer

Support flexible integrate with hospital ordering systems and design portals.

02 Customizable features

- Different Layout
- Visual Identity (VI)
- Custom LOGO
- Tailored clinician workflow

Technical Specification

Scan presets	Face, Cranial, Torso, Upper limb, Lower limb, Feet, Socket, Seating, Foam box	
Light source	White light	Infrared VCSEL
Accuracy	0.05 mm	
Volumetric accuracy	0.05 + 0.1 mm/m	0.1 + 0.4 mm/m
Working distance	200 ~ 600 mm	200 ~ 1500 mm
FOV	475 x 360 mm	1090 x 1260 mm
Point distance	0.2 ~ 3 mm	
Safety	LED Light (Eye safe)	Class I (Eye safe)
Texture camera resolution	5MP	
Compatible accessory	FootStation 2*	
Alignment	Features, Textures, Markers, Hybird, Global Markers	
Output formats	STL, OBJ, PLY	
Hardware	CPU: 8 core, 2.4GHz; RAM: 32GB DDR5; Storage: 1T SSD; 6.4”2K AMOLED Touch Screen	
Interface & power source	Wi-Fi 6; USB-C; Battery: 5500mAh × 2; Support USB-C 60W-PD3.0 Charger	
Dimension	(H*D*W) 233 × 180 × 91 mm	
Weight (with batteries)	953 g	

ROI for Orthotics & Prosthetics

Orthotics and prosthetics clinics sought to cut production time and expenses for custom devices, while ensuring greater accuracy and patient comfort.

SHINING 3D Scanner

Driving Digital Transformation in O&P

By balancing performance and affordability, SHINING 3D ensures that advanced 3D scanning technology is not limited to large institutions, but also available to smaller clinics and labs seeking digital transformation.

ROI Calculator

ROI & Value

Category	Traditional Method	3D Digitizing Method
Method	Plaster casting, tape measure, manual drawings, CAD modeling, milling	Contactless 3D scanning with EinScan Medixa, auto CAD conversion, direct to milling
Materials used	Plaster, foam boxes, manual tools	None (fully digital)
Accuracy	Inconsistent, operator-dependent, multiple measurements to take average values	One-time scanning, Up to 0.05 mm
Data archiving	Not good to track	Data documented and to be used to compare in follow-up assessment
Rework rate	15 ~ 20%	< 3%
Patient experience	Messy and traumatic	Clean and comfortable
Time per step (Take cranial for example)	Casting: 30 minutes Measurement: 1 hour CAD design: 3 hours Milling and finishing: 30 minutes	Scanning: 30 seconds Post-processing & CAD: 20 minutes Milling and finishing: 30 minutes
Total time per case	5 hours	1 hours
Patient throughput (per 8h workday)	1.6 patients / day	8 patients / day

80%

Time savings

400%

Patient throughout increase

ROI Calculator

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