SIMTEK — Real Time. Real Results

SHINING 3D®

FreeScan UE Pro NEW

Multi-Functional Laser Handheld 3D Scanner

For High Precision Metrology-Grade Inspection

FreeScan UE Pro

FreeScan UE Pro inherits the high-precision, metrology-grade accuracy, and lightweight design of FreeScan UE, while improving the ability of fine scanning and global precision control of large-scale workpiece scanning. It adopts 26+5+1 blue laser lines and integrates a photogrammetric module. Taking into account speed, accuracy and details, this professional 3D metrology solution can be applied to different sized scanning scenarios and perform metrology-grade accuracy inspection, reverse design, additive manufacturing and other applications.

Scale Bar

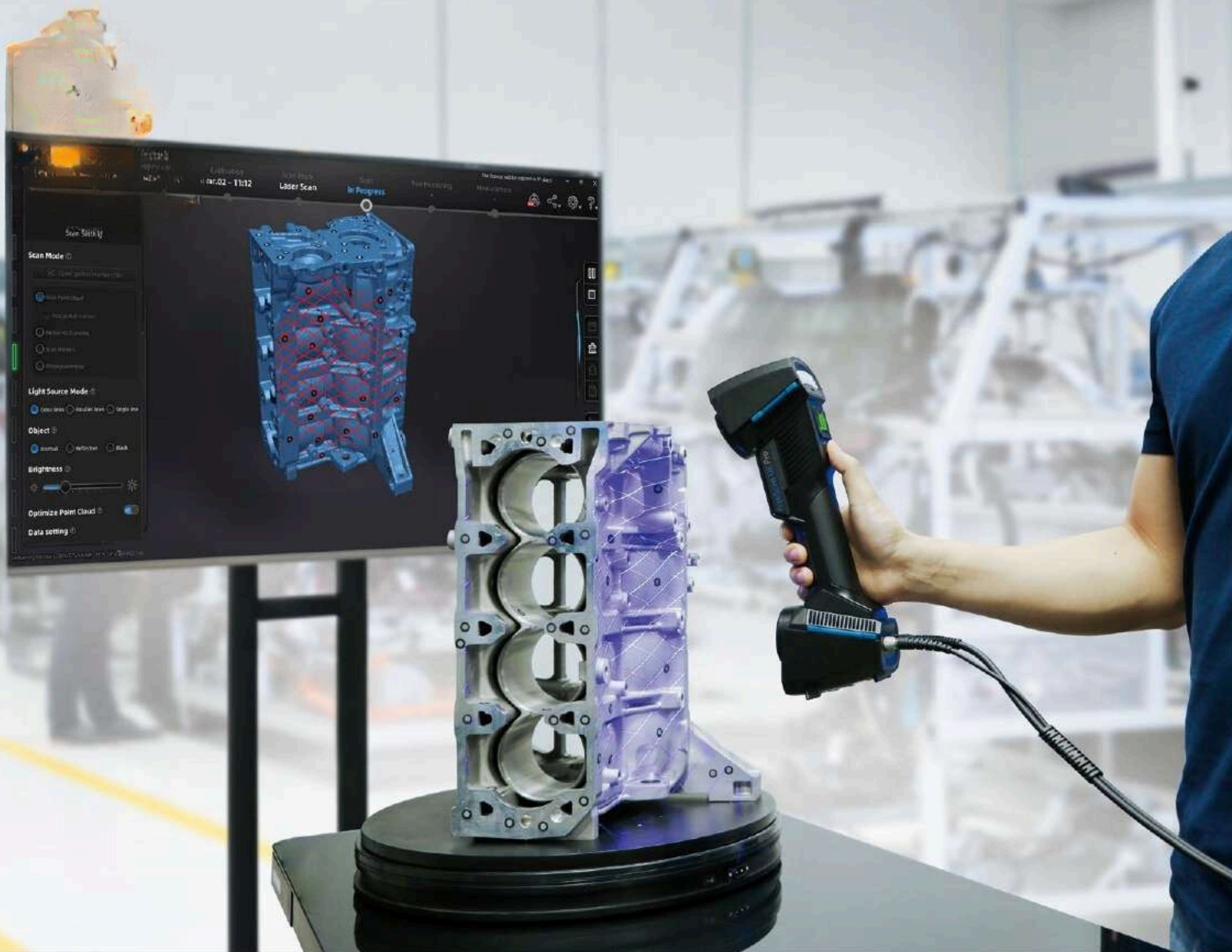Patented built-in scale bar photogrammetry module increases volumetric accuracy

Metrology-Grade High Accuracy

Accuracy up to 0.02mm, delivers consistent scanning results with high precision.

Global Precision Control

Integrated photogrammetry function no need to apply coded targets, quickly locks the spatial position of the target frame.

Multiple Scanning Modes

13 cross laser lines to scan large objects quickly, 5 parallel laser lines to scan fine details and single laser line for deep hole and pocket area scanning.

Easy Operation

840g

Inheriting the lightweight and ergonomic design of the UE series, the user-friendly scanning software enables an easy operation and shortens the learning curve.
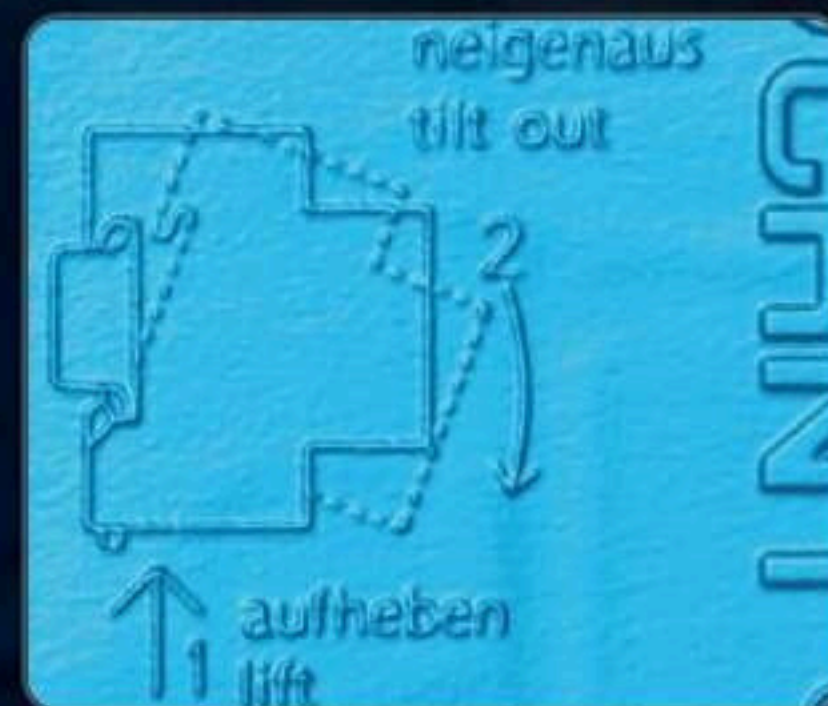
Shell of Air Switch (3D data)

Prototype Card with Texture (3D data)

Wide Range of Material Adaptations

Supports scanning of black and high-reflective surfaces, more efficient scanning process.

Fine and Rich Details

With higher resolution cameras and 5 parallel laser lines, FreeScan UE Pro enables rich feature object scanning and restores fine details more accurately.
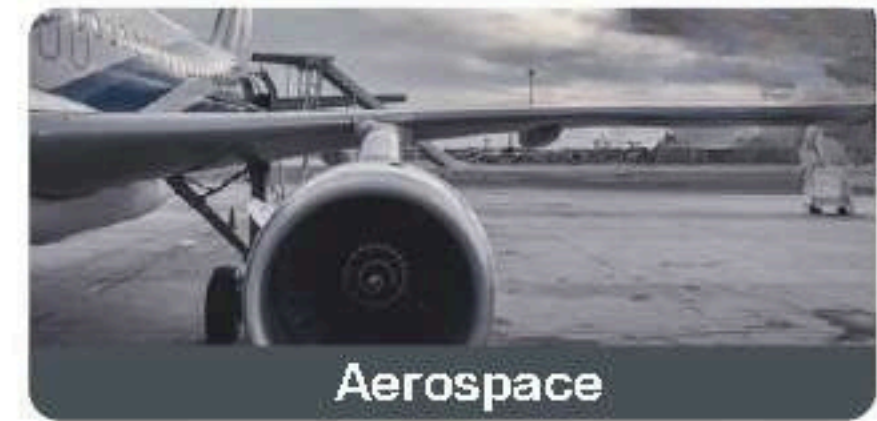
APPLICATIONS

Automotive
- Vehicle appearance design
- Supply chain quality management
- Production quality control
- Car modification

Railway Transportation
- Modeling design
- Production line assembly and debugging
- Overall size control
- Workpiece repair and maintenance

Aerospace
- Aircraft structure inspection
- Interior design
- Engine inspection
- Maintenance and operation

Energy Manufacturing
- Reverse engineering design
- Fluid dynamics analysis
- Deformation analysis
- Impeller blade inspection

Mold Inspection
- Virtual assembly
- Wear analysis and maintenance
- Quality control
- Fixture design

Machine Manufacturing
- Quality inspection and control
- Tool and mold adjustment
- Rapid prototyping inspection
- OEM and old parts remanufacturing

Software Update Sharing
SHINING 3D®

3D Design Software
- Solid Edge SHINING 3D Edition
- Dx Geomagic Design X
- Ge Geomagic® Essentials™

3D Inspection Software
- Cx Geomagic Control X
- Geomagic Control X Essentials
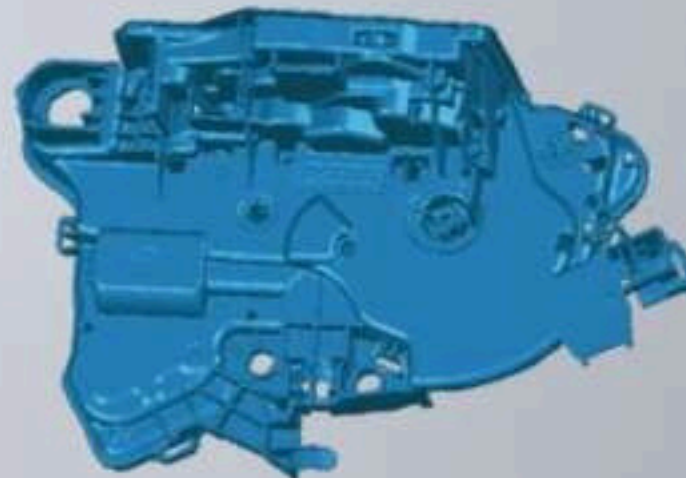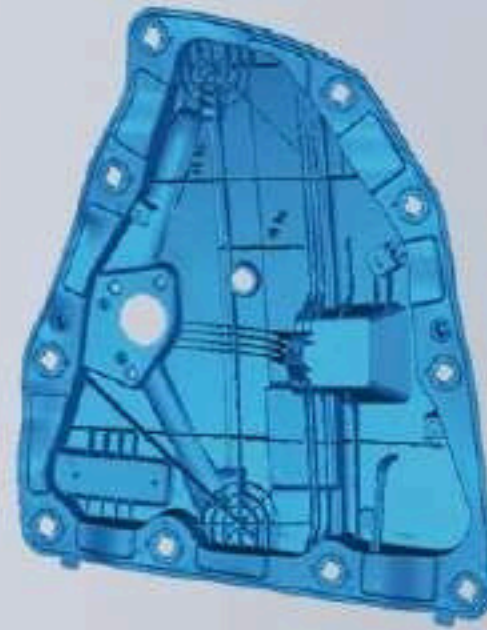- VERISURF.

Over-the-Air-Update
Whenever there is a new update, a notification pops up to enable a direct download of the free software.

Seamless docking to inspection and design software
The scan data can be imported into all mainstream 3D inspection and design software programs, such as Geomagic Control X, Geomagic Design X, and Verisurf Inspect with one click, improving the workflow efficiency.

3D INSPECTION

SPECIFICATION

Product Model	FreeScan UE Pro	
Scan Mode	Multiple Lines Scan, Single Line Scan	Fine Scan
Light Source	26 laser lines + single laser line	5 parallel laser lines
Scan Accuracy	up to 0.02 mm	
Scan Speed	1,850,000 points/s	
Working Distance	300 mm	200 mm
Scan Depth	170 mm ~ 680 mm	
Max. Scan Range	600 mm × 550 mm	
Photogrammetry	Built-in scale bar photogrammetry mode	
Volumetric Accuracy*	0.02+0.03 mm/m (standard mode); 0.02+0.015 mm/m (built-in photogrammetry mode)	
Laser Class	Class 2M (eye safe)	
Connection Standard	USB 3.0	
Dimension	298 mm x 103.5 mm x 74.5 mm	
Weight	840 g	
Power Input	12 V, 5.0 A	
Working Temperature	−20 ~ 40℃	
Working Humidity	10 ~ 90%	
Certification	CE, FCC, ROHS, WEEE, KC	
Recommended Computer Configuration	OS: Win10, 64 bit; Graphics card: NVIDIA GTX/RTX series cards, higher or equal to GeForce RTX 3060; Video memory: ≥6 G; Processor: I7-8700; Memory: ≥32 GB	

Note: SHINING 3D reserves the right to explain and modify the parameters and pictures described in this product brochure.