

TRACKSCAN-P

Optical 3D Measurement System

Intelligent Tracking without Targets



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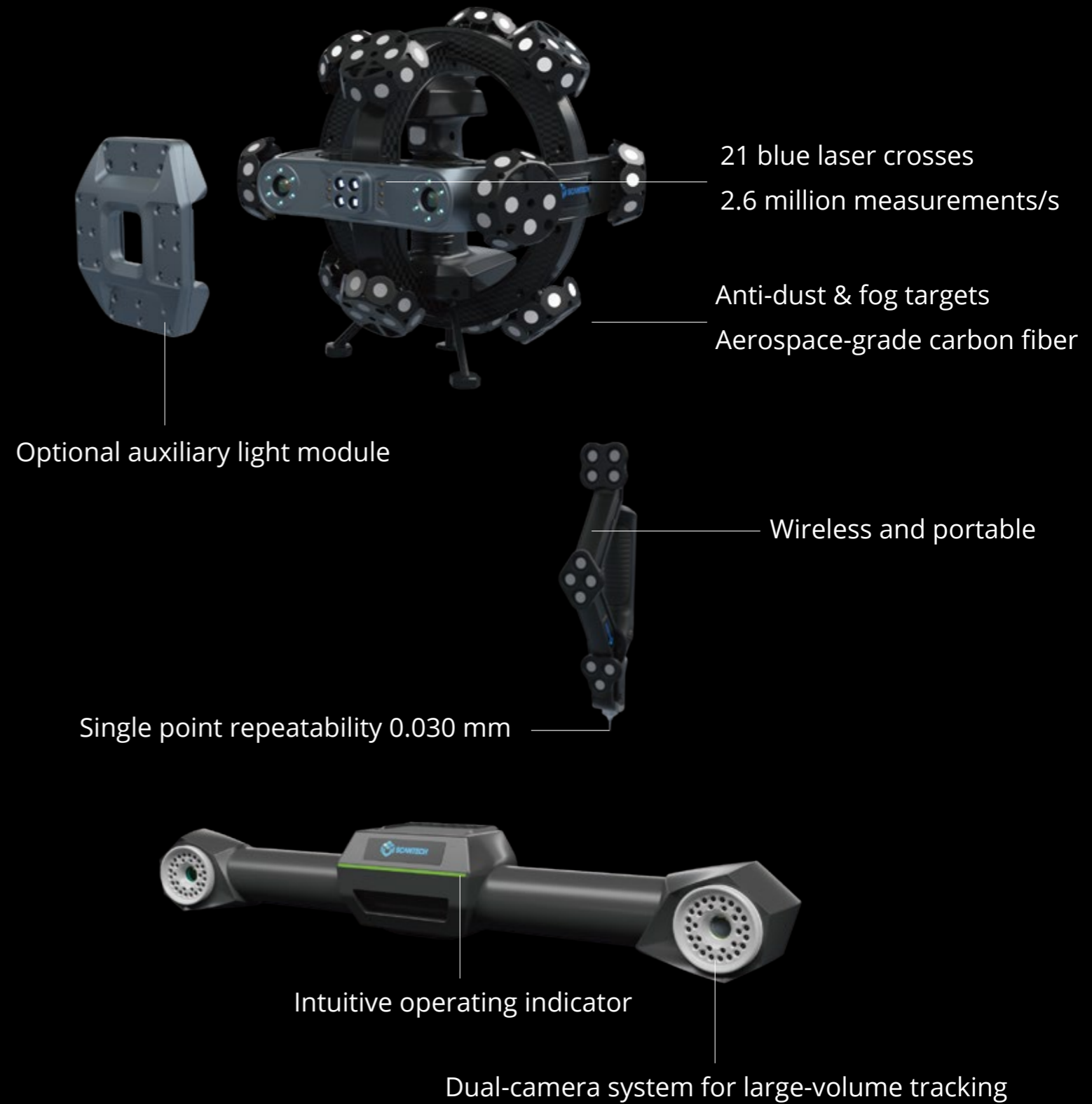


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TRACKSCAN-P

Engineered with intelligent optical tracking measurement and high-resolution cameras, Track-Scan-P can precisely measure parts without having to stick reference targets. This optical 3D measurement system, consisting of a portable 3D scanner and an optical tracker E-Track, suits well for 3D scanning large-scale objects. It can be widely applied for quality control, product development, reverse engineering, and more in industries such as aerospace, automotive, rail transport, and mold.

By combining it with additional modules, it can enable extendable applications. It can be paired with an auxiliary light module to inspect circles, grooves, and machined holes of stamping parts. With a portable T-Probe, it conducts precise contact measurements for edges, circles, and grooves. When being mounted onto a robot arm, it is an optimal choice for intelligent and automated 3D inspection.



Target-free
3D Scanning



Ultra-fast
Measurement



Edge Detection

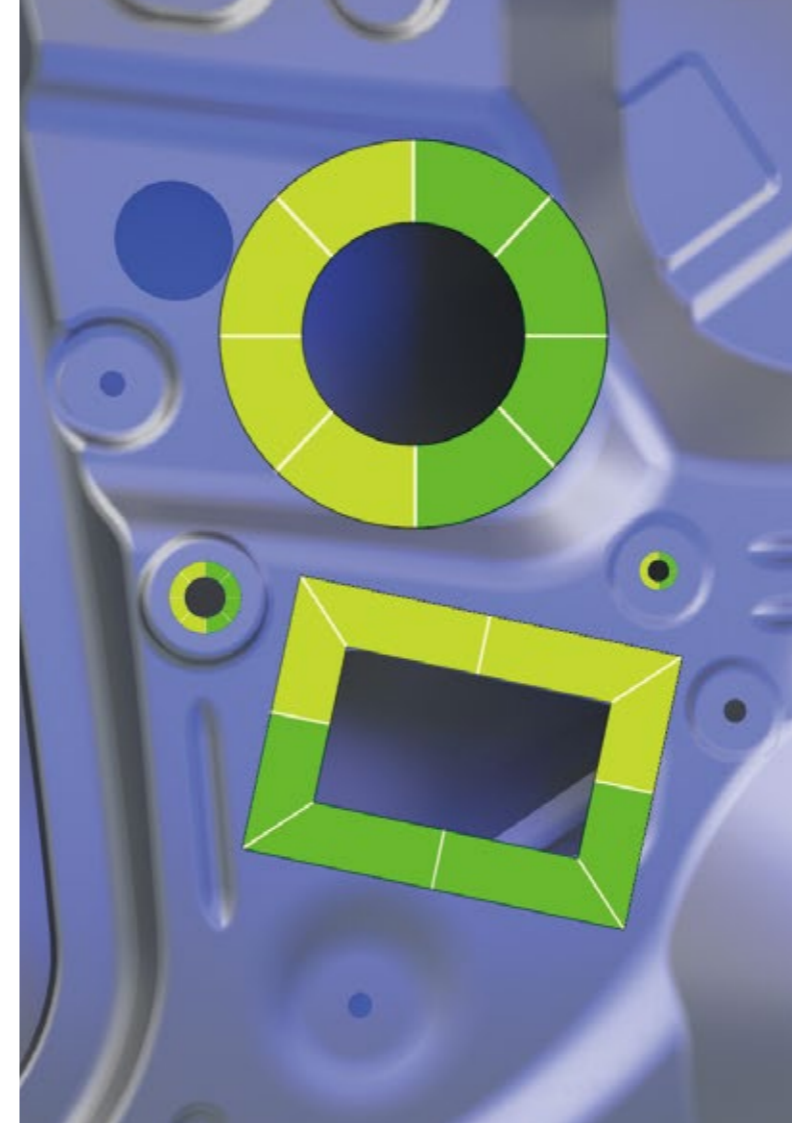


Extendable
Measuring Volume



Optical Tracking for Instant 3D Scanning

TrackScan-P 3D system's optical tracking allows users to start scanning instantly without having to stick targets, significantly improving efficiency and decreasing costs.



Precise Edge Detection

TrackScan features a stand-out function of instant edge detection. Users can inspect circles, grooves, and machined holes of stamping parts in various finishes on the site without having to import original CAD models. The efficient edge detection is enabled thanks to its gray value measurement and optional auxiliary light module. Good measurements are ensured by delivering accurate and repeatable hole positions and diameters.

Unrivaled-fast & Detail-maker

By freely switching between multiple working modes, the TrackScan fits different scanning situations with an accuracy of up to 0.025 mm and an ultra-fast measurement rate of up to 2,600,000 measurements/s. Its 7 parallel blue laser lines perform well for capturing details. A single blue laser line aims to collect 3D data of deep holes and hard-to-reach areas efficiently.



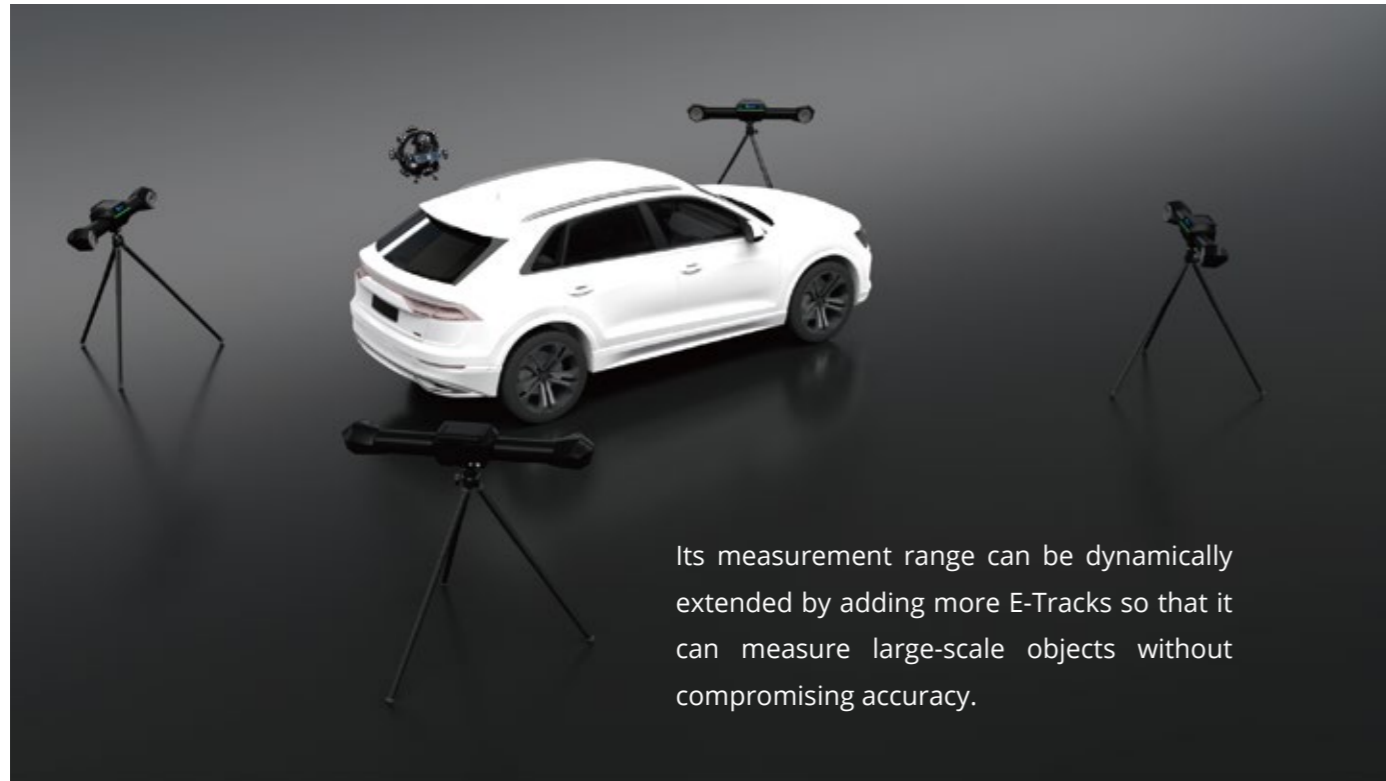
Strong Adaptability

Made from aerospace-grade materials, it is sturdy and reliable. It also boasts a strong anti-interference capability to operate smoothly regardless of vibrations or thermal variations. Due to its advanced algorithm, TrackScan is robust in capturing 3D data of reflective and dark surfaces.

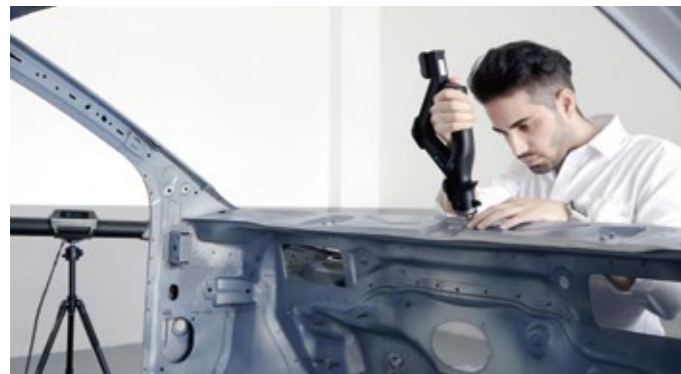


Extendable Applications

TrackScan-P optical 3D measurement system can be integrated with Scantech's products to cater to different measurement needs.



Its measurement range can be dynamically extended by adding more E-Tracks so that it can measure large-scale objects without compromising accuracy.

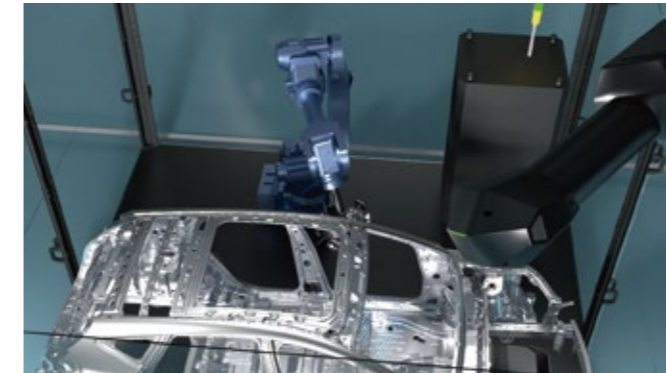
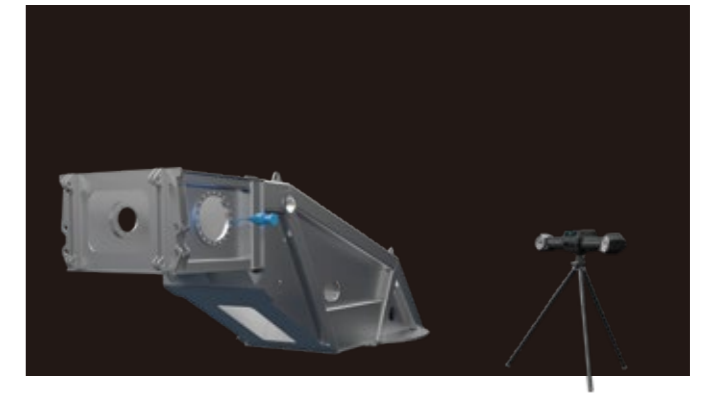


It can be paired with a portable CMM T-Probe (optional with different sizes) to probe inaccessible areas such as holes and hidden points. This contact measurement probe can ensure precise results with high single-point repeatability of 0.030 mm.

When integrated with Scantech's wireless communication link AirGo Pro, it can enable free and mobile 3D scanning.



It can be mounted on a robotic arm to form an automated 3D measurement system AutoScan-T for efficient, and batch measurement.



Its E-Track can also be combined with path planning software for intelligent robotic path planning and guiding.

Technical specification

Type		TrackScan-P550	TrackScan-P542	TrackScan-P42	
Scan mode	Ultra-fast scanning	21 blue laser crosses	17 blue laser crosses		
	Hyperfine mode B	7 blue parallel laser lines			
	Deep hole scanning	1 extra blue laser line			
Accuracy ⁽¹⁾		Up to 0.025 mm			
Measurement rate		Up to 2,600,000 measurements/s	Up to 2,200,000 measurements/s	Up to 1,900,000 measurements/s	
Scanning area		Up to 500 mm × 600 mm			
Laser class		Class II (eye-safe)			
Resolution		0.020 mm			
Volumetric ⁽²⁾ accuracy	10.4 m ³	0.060 mm	0.064 mm		
	18.0 m ³	0.075 mm	0.078 mm		
Volumetric accuracy (With MSCAN photogrammetry system)		0.044 mm + 0.012 mm/m		0.044 mm + 0.015 mm/m	
Single-point repeatability of portable CMM T-Probe		0.030 mm			
Hole position accuracy		0.050 mm	-		
Object Size (Recommend)		100~8000 mm		200~6000 mm	
Stand-off distance		300 mm			
Depth of field		400 mm			
Output formats		.stl, .ply, .obj, .igs, wrl, .xyz, .dae, .fbx, .ma, .asc or customized			
Operating temperature range		-10°C - 40°C			
Operating humidity (Non-condensation)		10%-90% RH			
Interface mode		USB 3.0			
Certification		CE, UL		-	
Patents		CN106500627, CN106500628, CN206132003U, CN204854633U, CN204944431U, CN204902788U, CN204963812U, CN204902785U, CN106403845, US10309770B2, CN204854633U, CN105068384B, CN105049664B, CN106403845B, CN111694665A, CN214375417U, CN214379242U, CN214379241U, CN109000582B, CN112802002B, CN210567185U, CN211121096U, CN214149174U, CN114001671B, CN114001696B, CN114554025B, CN114205483B, CN113514008A, US10309770B2, US11060853B2, KR102096806B1, EP3392831B1		CN106500627, CN106500628, CN206132003U, CN204854633U, CN204944431U, CN204902788U, CN105068384, CN105049664, CN204963812U, CN204902785U, CN106403845, US10309770B2	

(1) ISO 17025 accredited: Based on VDI/VDE 2634 Part 3 standard and JJF 1951 specification, probing error (size) (PS) performance is evaluated.
(2) ISO 17025 accredited: Based on VDI/VDE 2634 Part 3 standard and JJF 1951 specification, sphere spacing error (SD) performance is evaluated.