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NIMBLETRACK

Wireless 3D Scanning System

Nimble and Wireless, Easier Than Ever



NIMBLETRACK

The NimbleTrack wireless 3D scanning system is highly compact and agile, which is designed to redefine the precise 3D measurements of small-to-medium-sized parts. Thanks to powerful on-board chips and built-in battery power supply, its 3D scanner and optical tracker are fully wireless, enabling true freedom.

With the most advanced technology, it offers the ultimate 3D scanning experience for users. Both the 3D scanner and tracker can be used for vast applications to deliver efficient and reliable measurement experiences.

NimbleTrack ushers in the third generation of SCANOLOGY's 3D scanning technology featured by intelligent and wireless 3D scanning. With its wireless, target-free, precise 3D scanning and high portability, NimbleTrack revolutionizes the field of 3D scanning.

- Wireless Measurement
- On-board Edge Computing
- Grab-and-go Design
- Industrial-grade Precision
- Target-free 3D Scanning
- High Frame Rate of 120 FPS

Wireless Freedom

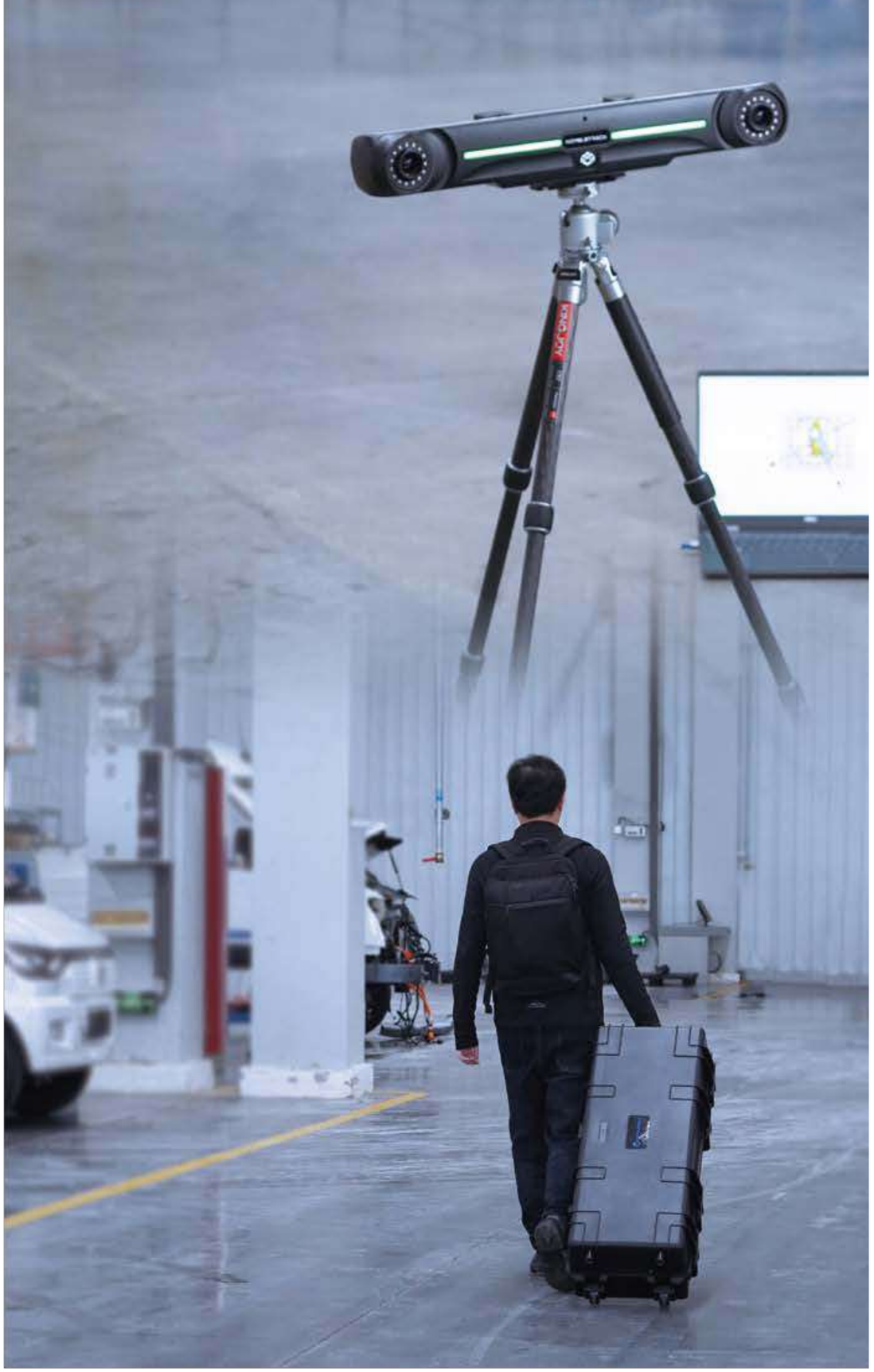
This nimble optical 3D scanning system sets a new benchmark for wireless and free 3D scanning. It eliminated the need for any cables to power the instrument or transfer data. On-site measurement won’t be a problem even when there is no power supply available.

The 3D scanner has a built-in powerful battery, and the tracker comes with standard plug-in batteries to deliver a dual power cycle, ensuring continuous operations over a long time. All of these advance-ments allow you to enjoy free measurement experiences.

Dual Edge Computing and Robust Performance

Both NimbleTrack's 3D scanner and tracker have powerful edge computing modules, which enables it to deliver fast and smooth scanning experiences at a high frame rate of 120 FPS.

When compared with common handheld 3D scanners, it saves the need for a power supply and the hassle of sticking targets, which highly streamlined measurement processes. It tackles complex tasks with ease by delivering target-free and efficient 3D scanning.



Incredible Compact & Plug-and-Play

Lightweight and compact, NimbleTrack sets a new standard for the optical 3D scanning system.

Its lightweight design allows you to measure parts wherever you need it. With a length of 57cm and a total weight of 2.2 kg, i-Tracker stands out by delivering easy uses. Besides, engineers and professionals can use the 3D scanner, weighing only 1.3 kg, for long periods without feeling tired.

The system comes with a small standard protection case that can accommodate all its instruments to deliver flexible and convenient uses.

57cm

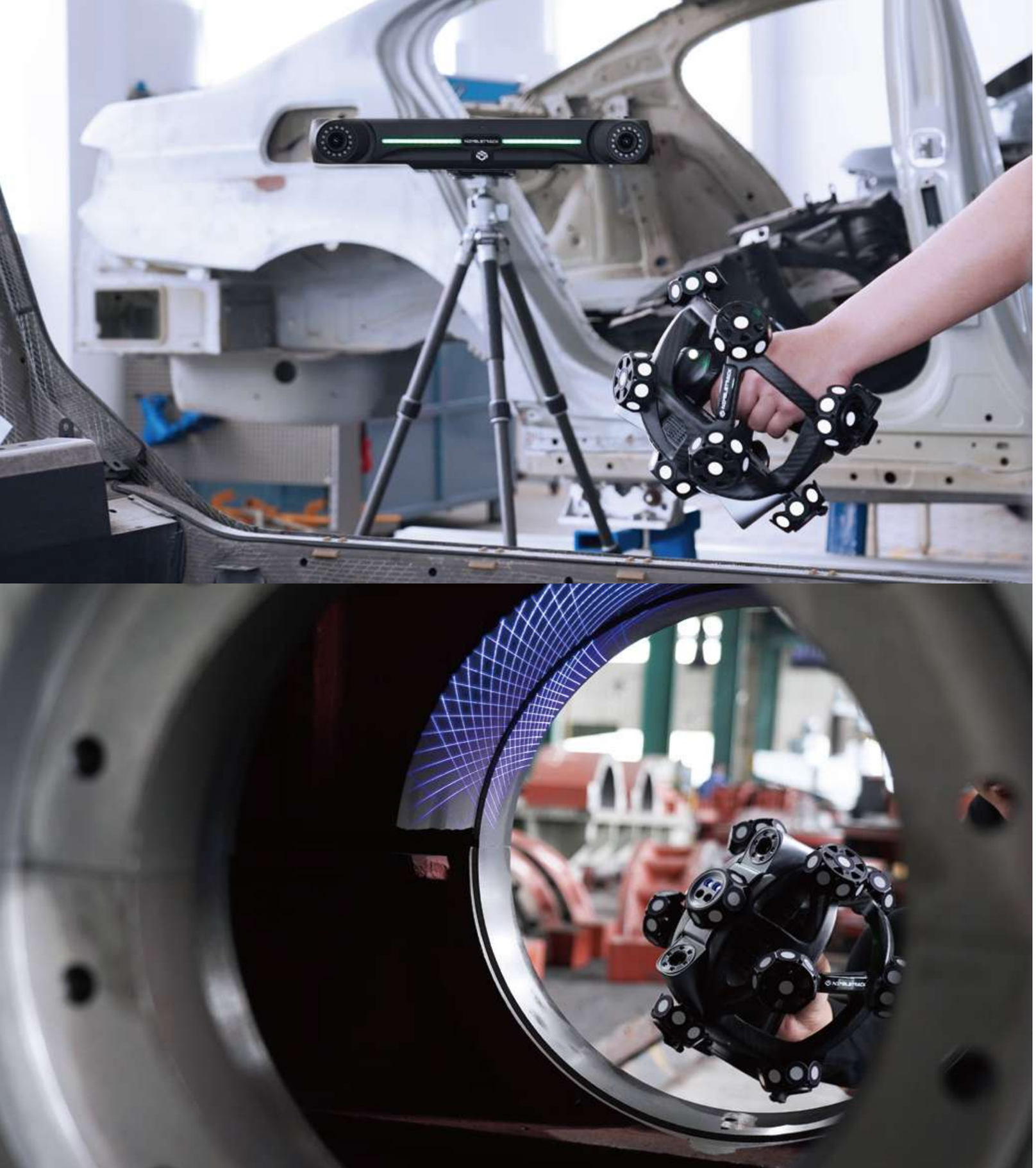


1.3KG



Stable Structure With CFFIM Technology

NimbleTrack's 3D scanner embraces an innovative Carbon Fiber Frame Integrated Molding (CFFIM) technology to ensure lightweight design and high strength, breaking through the limits posed by traditional assembled structures. It is highly stable as its structure is steady and it is unaffected by thermal variations. One time of calibration can ensure it works steadily for a long period. You can enjoy full control over every scan with this cutting-edge technology.



Unleash Precision, Unleash Excellence

Utilize the full potential of SCANOLOGY's metrology products and advanced algorithm, the system achieves an accuracy of up to 0.025 mm and maximum volumetric accuracy of 0.064 mm across the whole range. NimbleTrack enables users to capture 3D data with meticulous details and industrial-grade precision.

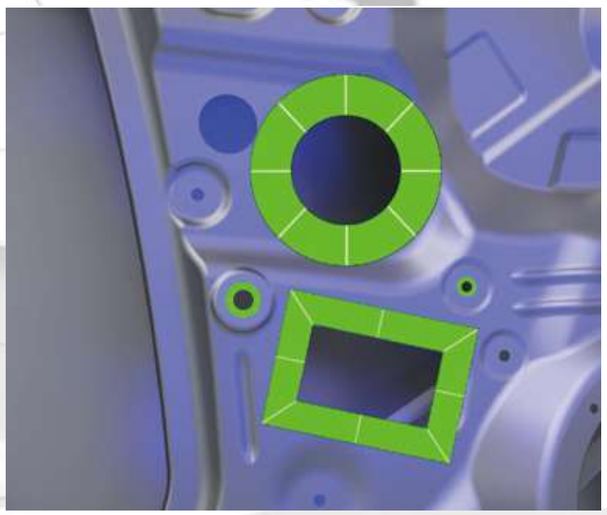
Next Level 3D Scanning

NimbleTrack is smaller, smarter, and mightier, allowing users to explore novel applications for industrial measurements.

When dealing with narrow spaces or hard-to-reach areas, the 3D scanner can be operated wirelessly and independently, allowing for instant scanning and one-handed control. This enables high-precision scanning of up to 0.020 mm at any time and in any location.

When measuring even larger-sized parts, the optical tracker can further enhance precision by using its built-in infrared large-area scanning for targets.

Get the Most From Your NimbleTrack



Intelligent Edge Detection

NimbleTrack boasts an optional module of precise edge detection, which is enabled by gray-value measurement. Users can inspect closed features such as holes, slots, edges precisely and obtain information such as positions and diameters.



Automated Measurement

Based on the new 3D scanner architecture, we have customized a clamping method for automated measurement, making it more compatible with various types of robots. Its 360-degree evenly distributed target sets allow for all-round and precise tracking, facilitating forming efficient automated batch measurement systems.



Multi-tracker Measurement

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



i-Probe500

It can be paired with a tracking i-Probe to probe inaccessible areas such as reference holes and hidden points. This contact measurement probe can ensure precise results with both wired and wireless options.

PolyWorks | Geomagic Control X







Technical Parameter

Type		NimbleTrack-C
Scan mode	Ultra-fast scanning	17 blue laser crosses
	Hyperfine scanning	7 blue parallel laser lines
	Deep hole scanning	1 blue laser line
Accuracy for scanner-only mode [1]		Up to 0.020 mm (0.0008 in)
Accuracy for system [1]		Up to 0.025 mm (0.0009 in)
Tracking distance per i-Tracker		3200 mm (126.0 in)
Volumetric accuracy [2] (Tracking distance 3.2 m)		0.064 mm (0.0025 in)
Volumetric accuracy (With MSCAN photogrammetry system)		0.044 mm + 0.012 mm/m (0.0017 in + 0.00014 in/ft)
Hole position accuracy		0.050 mm (0.0020 in)
Laser class		Class II (eye-safe)
Resolution up to		0.020 mm (0.0008 in)
Stand-off distance		300 mm (11.8 in)
Depth of field		400 mm (15.7 in)
Scanning area up to		500 mm × 600 mm (19.7 in × 23.6 in)
Scanning frame rate		120 fps
Measurement rate up to		4,900,000 measurements/s
Dimension of i-Scanner		238 mm × 203 mm × 230 mm (9.4 in × 8.0 in × 9.1 in)
Weight of i-Scanner		1.3 kg (Net weight) (2.87 lb)，1.4 kg (Battery and wireless module included) (3.09 lb)
Dimension of i-Tracker		570 mm × 87 mm × 94 mm (22.4 in x 3.4 in x 3.7 in)
Weight of i-Tracker		2.2 kg (Net weight) (4.85 lb)，2.6 kg (Battery and wireless module included) (5.73 lb)
Size of protection case		1000 mm × 425 mm × 280 mm (39.4 in × 16.7 in × 11.0 in)
Output format		.stl, .obj, .ply, .asc, .igs, .txt, .mk2, .umk and etc.
Operating temperature range		-10°C – 40°C (14 °F - 104°F)
Operating humidity (Non-condensation)		10-90% RH
Wireless operating mode		i-Scanner, i-Tracker, i-Scanner + i-Tracker, i-Tracker + i-Probe, Wireless multi-tracker tacking, Edge Inspection
Wireless standard		Wi-Fi 6, 802.11a/b/g/n/ac
Interface mode		USB 3.0, Network Interface
Patents		CN211121096U,CN210567185U,CN111678459B,CN114001696B,CN114554025B,CN114205483B CN113514008B,CN114627249B,CN112867136B,CN218103220U,CN218103238U,CN307756797S CN113340234B,CN112964196B,CN115289974B,CN113188476B,CN218411072U,CN115325959B CN218584004U,CN115661369B,CN218734448U,CN115493512B,CN110992393B,CN116136396B CN113432561B,CN219834226U,CN219829788U,CN116244730B,CN116206069B,US10309770B2 US10309770B2,US11060853B2,KR102096806B1,EP3392831B1,US11493326B2,CN109000582B

(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.

