SCANOLOGY

6D 6DoF Tracking, Unleashed Precision Pose Tracking System

PROBE

CUSTOMIZED ADAPTERS

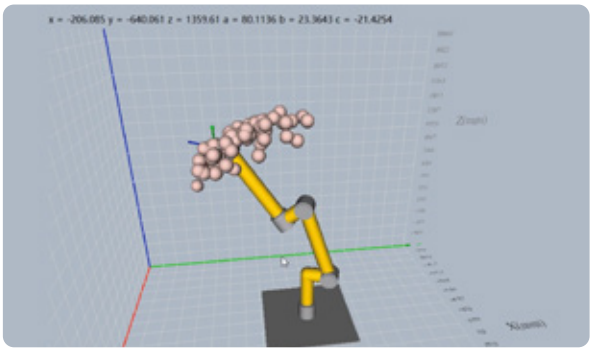
TRACKER

SCANOLOGY's latest 6D pose tracking system, consisting of trackers, customized adapters, probe, and dedicated 3D software, is designed for six degrees of freedom (6DoF) tracking across an entire field of view. Built on advanced stereo vision localization and optical tracking technologies, the system delivers high-precision data in real time, breaking through the limitations of traditional 3D coordinate measurements.

With an advanced dynamic compensation algorithm, the system accurately tracks pose deviations even in vibrating or complex environments. This makes it a reliable tool for applications such as crash testing, aerospace equipment assembly, robot calibration, and absolute-accuracy correction—delivering both excellent efficiency and consistency in pose measurements.

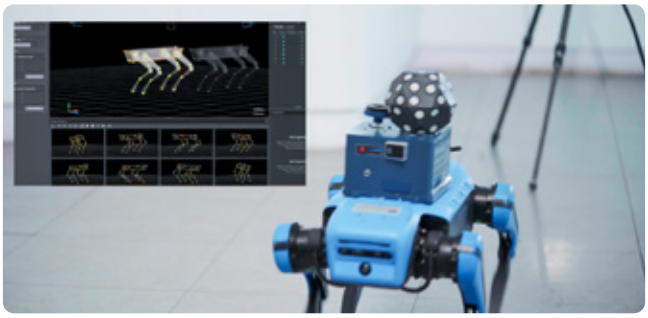
6DoF Tracking

Capture the complete 3D position (X, Y, Z) and orientation (pitch, roll, and yaw) of objects in real time. This transforms static position monitoring into dynamic pose monitoring, powering comprehensive control.



Multi-Target Tracking Made Easy

With advanced algorithms and a wide tracking range, the system enables simultaneous tracking of multiple targets from a single position, ensuring efficient pose capture and analysis. For robot absolute-accuracy correction, it tracks both end-effectors and multiple axes, improving precision and efficiency.

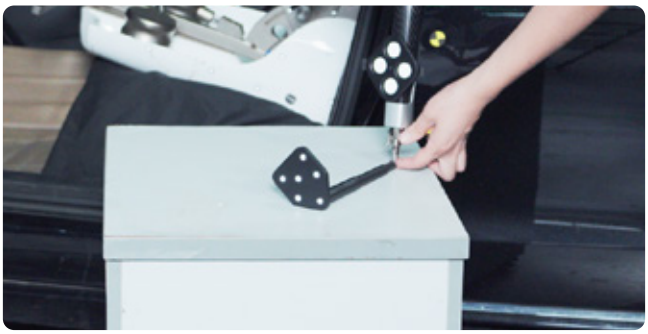


Dynamic Tracking and Adjustment

The system delivers real-time tracking of poses to guide operations like part assembly with pinpoint accuracy. It helps correct pose deviations in real time, minimizing errors and rework while boosting production efficiency and cutting costs.

Compact, Portable, and Adaptable

Lightweight, portable and stable, the system is built to perform in demanding environments. Plug-and play, it adapts effortlessly to various measurement tasks. With customized adapters, it seamlessly adapts to different features.

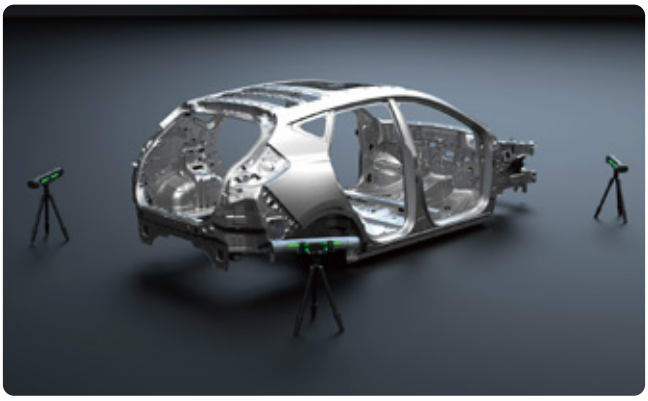


Dynamic Vibration Compensation

Engineered for high performance in motion or vibration, the system uses reference points to eliminate displacement. In crash tests, it tracks vehicle movement in real time, filters interference, and precisely locates key positions like the H-point to adjust seat position and dummy posture.

Safe and Extendable

Thanks to intelligent optical tracking, it enables safe, non-contact tracking of poses. The system supports multi-tracker setups to expand the tracking range, making it ideal for large-scale tracking.



Technical Parameter

	NimbleTrack Series	TrackScan Sharp Series
Tracking distance	3.2 m	8.5 m
Tracking frequency	90 Hz	100 Hz
Tracking accuracy	0.064 mm （3.2m）	0.048 mm （3.5 m）
		0.069 mm (5.2 m)
Adapter	Customized	
Operating temperature range	-10 - 40 °C	
Operating humidity (Non-condensation)	10 - 90 % RH	
Connection	USB 3.0, Network Interface, WiFi	
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	CN109000582B, CN110992393B, CN111678459B, CN111694665B, CN112802002B, CN112867136B, CN112964196B, CN113188476B, CN113340234B, CN113432561B, CN113473034B, CN113514008B, CN113766083B, CN114001696B, CN114205483B, CN114554025B, CN114627249B, CN115289974B, CN115325959B, CN115493512B, CN115511688B, CN115661369B, CN115690333B, CN115695763B, CN116136396B, CN116206069B, CN116244730B, CN209263911U, CN210567185U, CN211121096U, CN214149174U, CN218103220U, CN218103238U, CN218411072U, CN218584004U, CN218734448U, CN219829788U, CN219834226U, CN307756797S, EP3392831B1, EP3907702B1, KR102096806B1, US10309770B2, US11060853B2, US11493326B2

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