

TRACKPROBE

3D Probing System

Wide-area Measurement for Versatile Uses

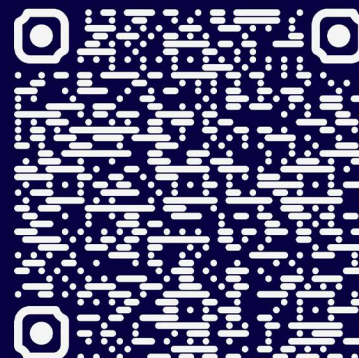


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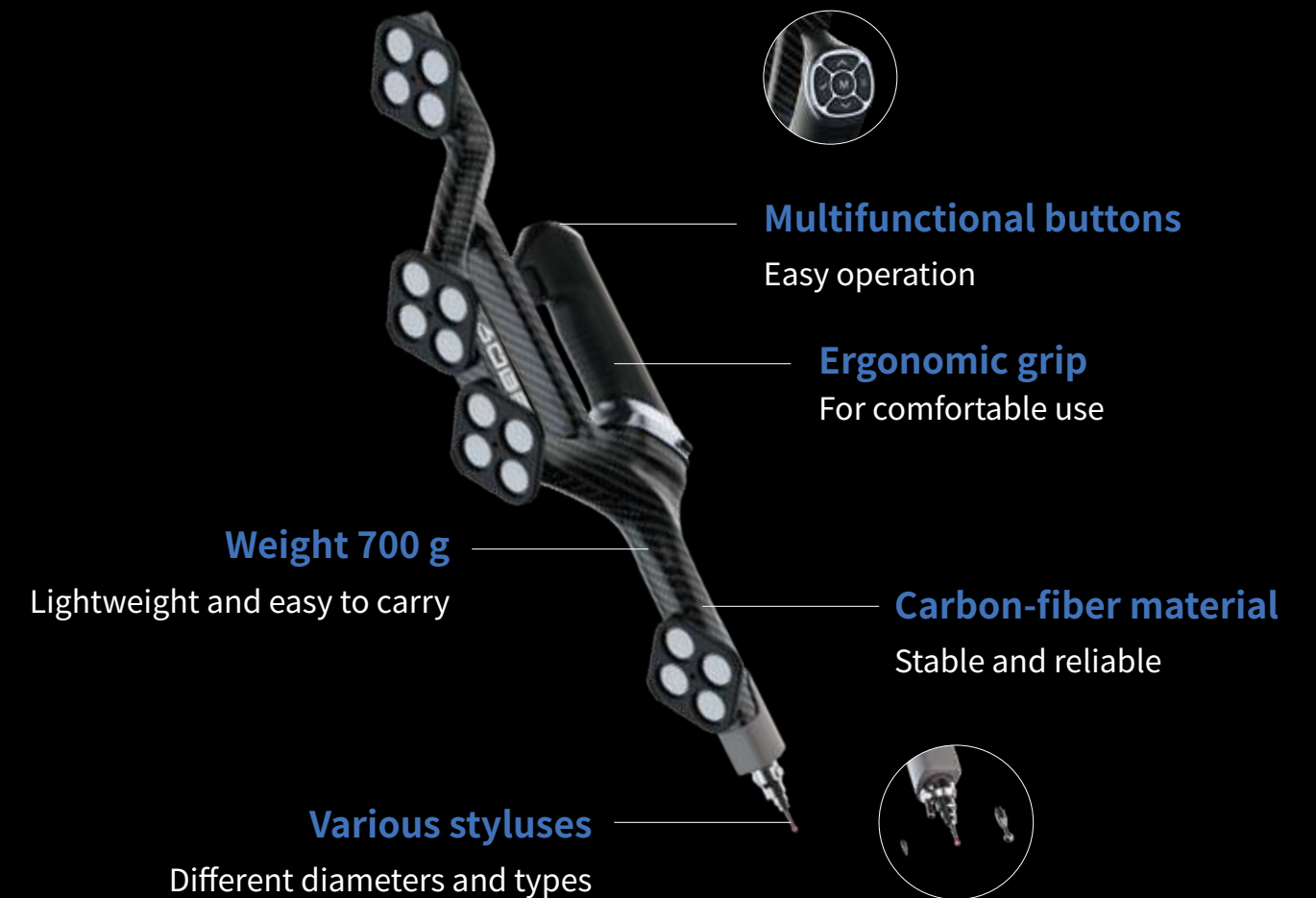


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TRACKPROBE

The TrackProbe 3D probing system, consisting of tracking i-Probe and the latest optical tracker i-Tracker, is designed for metrology-level measurements. It is highly precise, portable, and easy-to-use, which ensures high-quality measurements for parts in large measurement volumes, at long distances, and in harsh conditions.

TrackProbe is a system that allows you to perform 3D measurements with high accuracy and flexibility. You can use it for various tasks on the shop floor, such as fixture adjustment, benchmark marking, and geometric and dimensional inspection of engineering machinery. TrackProbe can handle both small and large parts, and has no constraints on the measurement situation.



Extensive Measurement

When combined with i-Tracker, which has a large field-of-view, i-Probe can measure parts in a distance of up to 6 meters. The tracking distance can be extended and reach 10 meters. Its wide-area measurement enables it to measure large-sized parts with high accuracy and excellent performance.



10m

Precise Metrology-grade Results

TrackProbe adopts high-precision optical tracking and robust algorithms to measure the shapes and GD&T of different parts with high accuracy.

The volume accuracy is 0.089 mm for 49.0 m³, 0.067 mm for 28.6 m³, and 0.049 mm for 10.4m³.

Excellent for Deep Hidden Points

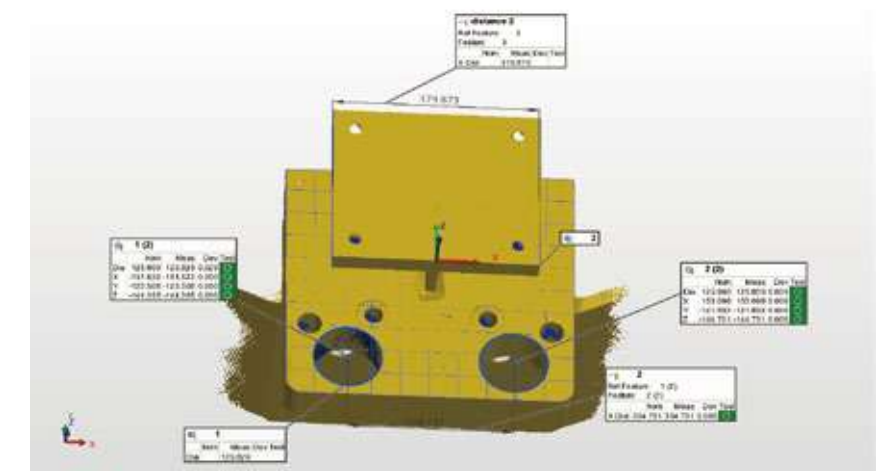
Thanks to its 500-mm length (excluding the stylus), and sophisticated algorithm, the i-Probe can measure reference holes, hidden points or hard-to-reach areas with ease and high accuracy even when some of its targets are blocked. This makes it flexible to measure and adaptive to various structures. It is especially suitable for measuring automotive parts, complex structures of aviation components, pipelines, holes, and irregular parts.



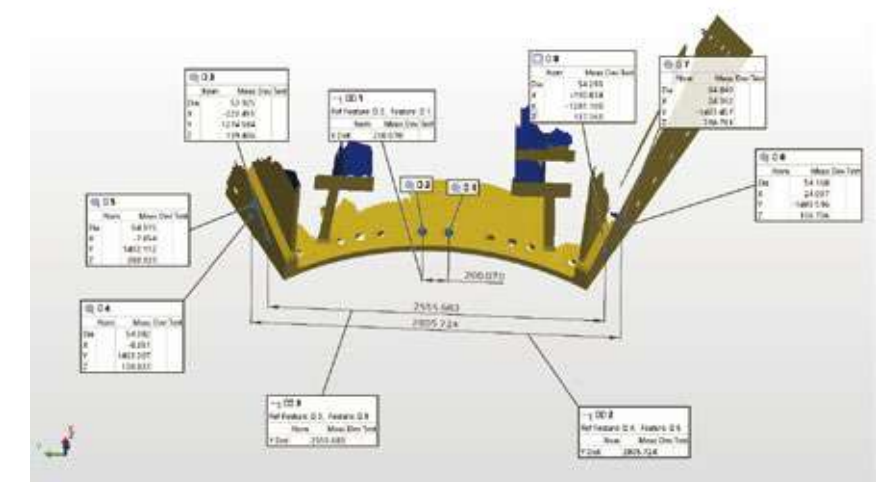


Non-stop Measurement and Easy Movement

The probe locations can be approached from any angle as long as the i-Probe is within the optical tracker cameras' field of view. i-Probe's poses can be tracked and mapped to the coordinate systems in real time by the tracker so that it can measure continuously without the need to reposition.



Based on advanced software and positioning algorithms, only a few markers are needed for i-Tracker to move and continue tracking the i-Probe. It greatly simplifies the movement and measurement processes and it is powerful to obtain data of large parts in a long distance.



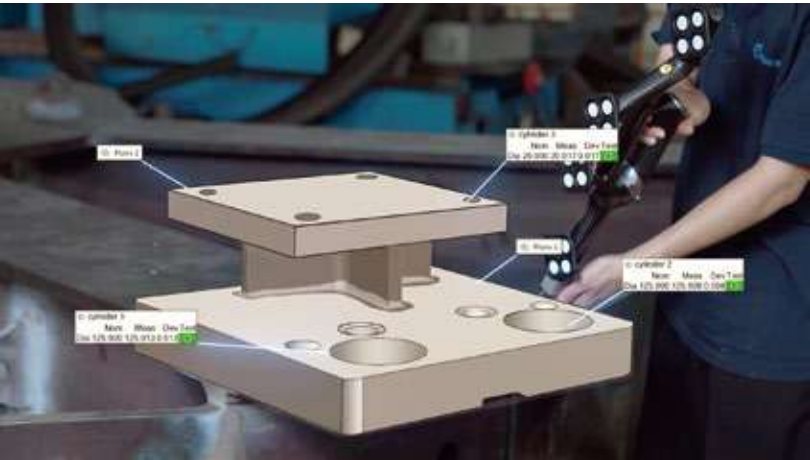
Flexible and Portable for Free Measurement

TrackProbe is a handheld probing system, which makes it possible to be used in any setting and for parts of any size without fixing.



Two Modes of Data Transfer

TrackProbe offers both wired and wireless data transfer options. The wireless mode allows users to measure on-site without any mechanical or cable constraints, while the wired mode ensures extra safety and reliability for data transfer in special situations.



Seamless Switch Between Scanning and Probing

Our self-developed 3D software TView-er can automatically unify the coordinate systems of scan data and probing data so that users can switch between scanning and probing with ease, which offers smoother measurement experiences.

Diverse Uses

The i-Probe is lightweight, portable, and reliable. It can be operated in various settings regardless of vibrations, temperature changes, humidity, and lighting. With dynamic referencing, it can calculate and correct position deviations to achieve high-precision measurements on shop floors or outdoors. It can deal with complex surfaces, high-precision parts, or large-scale parts without any problem.



Technical Specification

Type		TrackProbe
Volumetric accuracy ⁽¹⁾	10.4 m³ (Tracking distance 3.5 m)	0.049 mm (0.0019 in)
	28.6 m³ (Tracking distance 5.0 m)	0.067 mm (0.0026 in)
Measurement distance (per tracker)		Max 10 m (393.7 in)
Part size range (recommended)		0.1 m - 12 m (3.9 in - 472.4 in)
Camera pixel of i-Tracker		25 MP
Dimensions of i-Probe 500		510 × 145 × 89 mm (20.1 × 5.7 × 3.5 in)
Weight of i-Probe 500		700 g (1.54 lb)
Operating temperature range		0–45°C (32°F-113°F)
Operating humidity range (non-condensing)		10 ~ 90% RH
Connection		Wired and wireless
Number of targets		16
Patents		ZL201520680513.1, ZL202210065778.5, ZL202221475584.4, ZL202221766958.8, ZL202320545878.8

(1) Comply with ISO 10360-2 standard.