



MarvelScan

First Tracker-Free & Marker-Free
Portable Scanning Solution in the World

Smart Reverse-positioning Blue Laser 3D Scanner



A PROFESSIONAL 3D SCANNER SOLUTION PROVIDER IN THE WORLD

MarvelScan

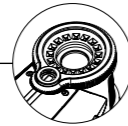
First Tracker-Free & Marker-Free Portable Scanning Solution in the World Smart Reverse-positioning Blue Laser 3D Scanner

MarvelScan, the first Tracker-free and marker-free portable scanning solution in the world, is a breakthrough product to change the working method of portable 3D laser scanner with faster scanning efficiency.

Thanks to the unique Inside-Out monocular positioning technology, during the whole scanning procedure, operator does not need to place sticker markers at all. Compared to other optical tracking scanning system, MarvelScan does not require the rigid structure with markers around scanner or an optical tracker at all, which improves portability and simplify the calibration procedure dramatically.



Monocular Positioning Camera



22 Blue Laser Lines

To improve scanning efficiency dramatically

Extra 5 Parallel Blue Laser Lines

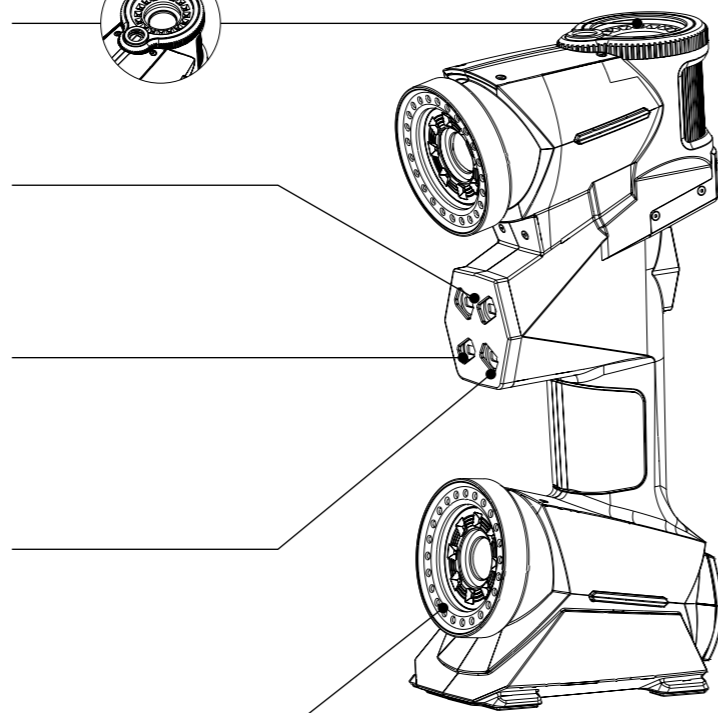
To feature more details

Extra Single Blue Laser Lines

To scan the hard-to-reach place well

Hole Flash Capture Technology

To instant capture hole data accurately



Feature

MarvelScan is the first blue laser 3D scanner in the world integrating three cameras at the same time, and two of them for scanning and the third one is for Inside-Out monocular positioning.

MarvelScan is the true "Plug & Scan" system thanks to its reverse-positioning technology, which can be realized in a pre-calibrated room or portable panel where to place markers.

Inside-Out Monocular Positioning Technology

No need to place sticker markers on part at all



Bicular Scanning Cameras

To collect quality scan data with high efficiency



Independent Photogrammetry

To ensure higher volumetric accuracy in the space



” No need to place sticker markers on part at all

Advantage



True “Plug & Play”

Thanks to Inside-Out monocular tracking technology, it can realize true “Plug & Play” without playing any sticker markers at all.



Great Portability & Easy Setup

Compared to other optical tracking system, MarvelScan does not require the right structure with markers around scanner and a tracker at all, which improves portability and simplify the setup dramatically.



Awesome Evolution

Brand new high FPS camera and algorithm update for quicker scanning speed and better scan quality.



Multi-functional Built-in Photogrammetry

3rd top camera worked as independent built-in photogrammetry system, it not only can help realize Marker-free & Tracker-free scanning, but also can improve volumetric accuracy dramatically.



Blue Laser for Better Details Scanning

All light sources adopt blue laser for better details scanning and adaptability.



Powerful Application In Different Scenarios

MarvelScan is an expert good at dealing with different application scenarios like in Marker-free & Tracker-free scanning, marker scanning, worked with wireless scanning module and automated scanning solution.



Technical Specification

Model		MarvelScan	
Scanning Mode		Standard Mode	Fine Mode
Measurement Rate		2,100,000 measurements/s	900,000 measurements/s
Scanning Area		Up to 600×550mm	
Light Source		22 blue laser lines+ Extra Single blue laser line	Extra 5 Parallel blue laser lines
Laser Class		Class II (Eye Safe)	
Resolution		Up to 0.02mm	
Accuracy		Up to 0.02mm	Up to 0.01mm
Independent Built-In Photogrammetry	Volumetric Accuracy	0.02mm/m	
	Ave.Deviation	0.007mm/m	
	Depth Of Field	600mm~5000mm	
Volumetric Accuracy	Marker-Free	0.05+0.020mm/m	
	With Markers	0.015+0.035mm/m	
	With Independent Built-In Photogrammetry	0.015+0.020mm/m	
	With Photoshot	0.015+0.015mm/m	
Hole Accuracy		Up to 0.03mm	
Hole Volumetric Accuracy	Marker-Free	0.06+0.020mm/m	
	With Markers	0.025+0.035mm/m	
	With Independent Built-In Photogrammetry	0.025+0.020mm/m	
	With Photoshot	0.025+0.015mm/m	
Stand-Off Distance		350mm	150mm
Depth Of Field		450mm	150mm
Depth Of Field(@Furthest Range)		550mm	
Weight		1.3kg	
Dimensions		300×150×70mm	
Connection Standard		USB 3.0	
Working Temperature		-20~40°C	
Working Humidity(Non-Condensing)		10%~90%	
Patent		CN108759669B、CN106228603B、CN208174805U、CN109099839B、 CN110345866B、CN111486801B、CN212539085U、CN106767895B、 CN106204544B、CN304321958S、CN108038878B、CN211046994U、 CN306620676U、CN214224013U、CN214924384U、CN215572695U	



ZG Technology Co., Ltd.

Website: www.3d-zg.com
Hot line: 400-027-7181

Tell: +86 27 87741893
Email: overseas@3d-zg.com

Add: Building No.1, Dingxin Industrial Park, No.18, Jiayuan Road, Hongshan District, Wuhan, China.