Technical Parameter

Type		iReal 2E
Light source	Category	Infrared VCSEL structured light
	Visibility	Invisible
	Safety	CLASS I (eye-safe)①
	Technology	Infrared linear-array structured light
	Color scanning	Support
Scanning features	Alignment mode without markers②	Texture/feature/mixed alignments
	Human body scanning	Invisible light/hair/dark environment scanning; automatically remove the layers of body shaking
	Medium/large-sized object	Optimal scanning distance 350 mm ~ 550 mm
		Effective working range 280 mm ~ 1000 mm
		Scanning area up to 580 mm x 550 mm
Measurement rate	Maximum	1,500,000 points/s
Detail	Point distance③	0.200 mm ~ 3 mm
Accuracy	Point accuracy (single frame)	Up to 0.100 mm
	Alignment accuracy④	Up to 0.300 mm/m
Data output	Output formats	OBJ, STL, PLY, ASC, SK
	3D printing	Support
Hardware	Work temperature	0°C ~ 40°C
	Interface mode	USB 3.0
	Weight	850 g
	Dimensions	140 mm × 94 mm × 258 mm
	Structure	3 sets of invisible light sources; 3 camera groups; 3 sets of auxiliary lights
	Working power supply	INPUT：100 - 240VAC，50 / 60Hz
		OUTPUT：24 = 3.75A，90W MAX

Description:
① Class1 LASER is a low-energy light source device, which has no biological hazards and will not cause damage to the human body or skin. It does not require other safety auxiliary equipment when used.
② When the item has continuous, non-repetitive, rich and varied geometric features/texture features, it can be directly scanned without sticking points.
③ The optimal point spacing setting for scanning: 0.5-1.5mm.
④ Support marking point splicing. In the mark point splicing mode, scan the standard ball gauge, and obtain the deviation of the center-to-center distance between the spheres from the standard value, which is the splicing error value (splicing accuracy value). The parameters in the table are obtained through the above test.

SCANTECH™

IREAL 2E

Color 3D Scanner

Expanded Vision for Effortless Smooth

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SCANTECH™

IREAL 2E

iReal 2E maximizes the performance in depth of field, scanning area, algorithm, texture reproduction and detail capturing, specially designed for medium to large-sized objects and human body 3D scanning.

iReal 2E adopts the Infrared VCSEL structured light technology to bring you the safest and most comfortable 3D scanning experience. Without attaching markers, a quick texture capturing and geometry acquisition can be achieved. Mixed alignment modes meet various scanning situations.

With the advantages of cutting-edge algorithm functions, easy-to-use software, ergonomic design, portable and durable, iReal 2E creates an efficient, accurate and rich texture 3D color measurement solution.

Smart scan configuration

Intelligent adjustable light system

The user can independently choose to turn on/off the fill light system. When turn off the fill light system, can achieve true invisible scanning

Small and light, easy to carry and durable

The scanner weighs only 850g, and all-in-one structure is equipped with a professional portable safety protective box, which is easy to carry and durable

HD camera lens module

Built-in high-precision industrial camera and a set of professional color texture cameras, while accurately acquiring the 3D data of the surface, it can also capture the details of the texture pattern on the surface to achieve high-definition, color 3D model acquisition

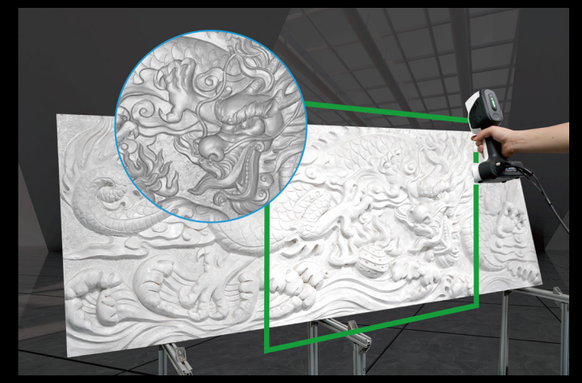
USB3.0 high-speed transmission

Equipped with a USB3.0 transmission cable that integrates power and data transmission, plug and play. The cable length is 4.0m, which is more convenient when scanning medium and large items

Product Features

Super large field of view

The largest scanning area is 580 X 550mm, and the large wide-angle field of view enables it to scan medium and large objects quickly and accurately.

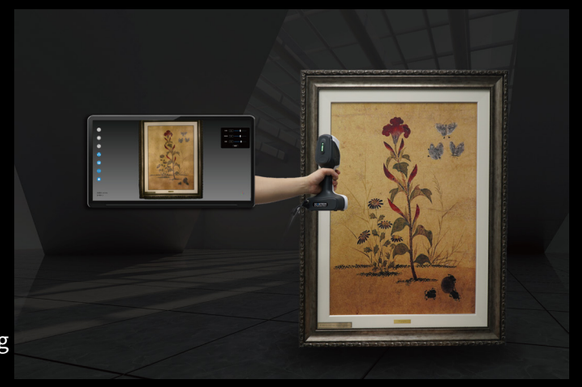


Greater depth of field

720mm scanning depth of field, better operation smoothness, easier to get started.

More powerful data capture capabilities

Using a new generation of 3D sensors and algorithm optimization, the data collection speed is as high as 1,500,000 points per second, the characteristics of single frame acquisition are more abundant, the splicing is smoother, and the scanning efficiency is higher.

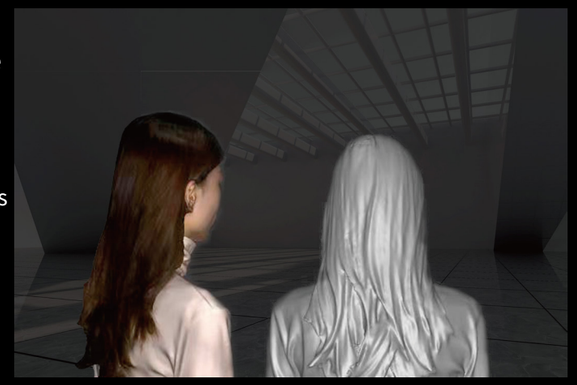


Smoother splicing ability

The texture capture algorithm has been upgraded to improve the ability to obtain reflective textures; the hybrid stitching mechanism has been optimized, thereby achieving more scanning tasks without the need for mark point.

"Invisible" scanning

Infrared VCSEL structured light is safe and invisible to human eyes, and the scanning process is more comfortable and safe.



Super black and hair scanning ability

Using the combined array structured light technology, it has stronger material adaptability, not only can scan more black material items, but also creatively solve the problem that other light sources are difficult to obtain when scanning.

3D Digital Solution

Body scan

Customization and re-creation of artistic portraits (bronze portraits, 3D printed portraits, wax figures, sculptural portrait scene reproduction, body art creation, etc.)Film, video, game, VR, AR and other CG character modeling (can be combined with motion capture system) medical rehabilitation (spine orthopedics, neck brace, prosthesis, arm immobilizer, orthopedic helmet, etc.) Human body parts customization (clothing customization, film and television armor customization) , Boxing gloves customization, etc.)

Digital acquisition analysis

Plant growth morphology analysis (trunks and potted plants), forensic identification (measurement of human trauma area/volume, footprint identification), medical diagnosis (spine correction screening), 3D comparative analysis of local body shape changes, monitoring and analysis of cultural relic morphology damage, etc.

Art Design

Medium and large sculptures (stone sculptures, urban sculptures, foam sculptures, clay sculptures, etc.), cultural relics (statues, parts of relics, parts of ancient buildings), college art training, clothing design, creative design, and derivative product development, etc.

More application exploration

Car mat, seat cover, luggage rack customization, furniture three-dimensional display auxiliary modeling (such as sofa), digital museum three-dimensional display, 3D printing, etc