Technical Parameter

IREAL 2E 2022
Color 3D Scanner

Infrared • Invisible Light • Large FOV

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 modes 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 object③	Optimal scanning distance range 300 mm ~ 500 mm
		Effective working range 280 mm ~ 1000 mm
		Maximum single scanning area up to 580 mm x 550 mm
Measurement rate	Maximum④	1,500,000 points/s
Detail	Point distance	0.200 mm ~ 3 mm
Accuracy	Basic accuracy	Up to 0.100 mm
	Alignment accuracy⑤	Up to 0.300 mm/m
Data output	Output formats	OBJ, STL, PLY, ASC, SK
	3D printing	Support
Hardware	Working temperature	0℃ ~ 40℃
	Interface mode	USB 3.0
	Weight	850 g
	Dimensions	140 mm × 94 mm × 258 mm
	Structure	3 sets of invisible light sources & camera groups & auxiliary lights
	Working power supply	INPUT : 100 - 240VAC, 50 / 60Hz
		OUTPUT : 24 = 3.75A, 90W MAX

Description:

① Class1 LASER is a kind of low-energy light source, which has no biological hazards and will not cause damage to the human body or skin.
② When the item has continuous, non-repetitive, rich and varied geometric features/texture features, it can be directly scanned without sticking markers.
③ Maximum size of a single scan: recommended not to exceed 4 m. If the item size or data is too large, it can be registered after part scanning.
④ Scan speed is up to 1,000,000 points/second under standard mode while it can reach 1,500,000 points/second when the memory size of graphics card equals or exceeds 6G.
⑤ It supports markers alignment. Alignment deviation value (alignment accuracy value) refers to the deviation value obtained by measuring the centers of the two standard spheres under marker alignment mode. If you have strict requirements on accuracy, please choose industrial laser 3D scanners from SCANTECH 3D.

RapidScan3D

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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.

Digital Artist
Professional Entry-Level Handheld Color & Large Scanning Area & Human Body 3D Scanner

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 and better operation smoothness help you get started easily.

Smoother splicing ability

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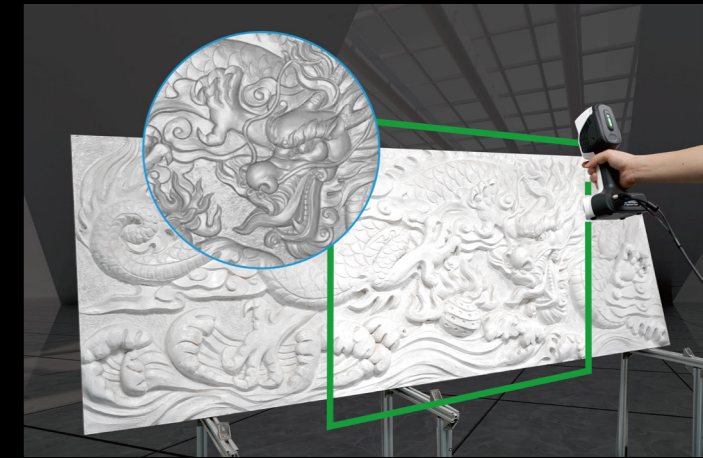
The characteristics of singleframe acquisition are more abundant, the splicing is smoother, and the scanning efficiency is higher.

"Invisible" scanning

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

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, sculptural portrait scene reproduction, 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, 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.

Digital acquisition analysis

Plant growth morphology analysis (trunks and potted plants)

Forensic identification (measurement of human trauma area, footprint identification)

Medical diagnosis (spine correction screening)

3D comparative analysis of local body shape changes

Monitoring and analysis of cultural relic morphology

More application exploration

Car mat, luggage rack customization

Furniture three-dimensional display auxiliary modeling (such as sofa)

Data acquisition for 3D printing,etc.

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