

3D Camera LE-SC

--- For personalized crystal business

1. LELEE provides the next generation design tools for 3D digital model creation and processing. LE-SC is the most powerful 3D modeling tool special in 3D business, the professional technology can capture 6x2 M high resolution pictures, insure every 3D model human that enough clear.
2. The 3D camera system has a compact construction and can be controlled from a Notebook PC. It can be installed and set up within just a few minutes. This 3D camera system is the optimum addition to our range of portable laser systems and means that you can stay mobile - it's really easy. 3D camera can also work independently without computer. Businessman also can take camera out for taking pictures, and get back to company for data processing to engraving crystal.
3. There are flash lights inside 3D camera, when taking pictures, it can create the appropriate light condition, no need to use additional assistant lights, and the technology does not use laser, there are no "Eye safety" problems. The capturing phase will be finished less than 0.5 second, just like using the common digital camera. From the capturing photo phase to the final DXF format 3D Portrait, the average operate time is 2-3 min in 3d software.
4. LELEE offers a comprehensive set of tools for professional operators to effectively scan and transform 3D and 2D scan data into high quality point cloud ready for laser engraving.
5. LELEE product's modular design allows 3D camera to be easily extended and reconfigured for customer specific workflows.

Features --- 3D Camera LE-SC ■ Efficient direct scanner control and data collection

- Point cloud generation with precise point distance control
- Comprehensive lighting and contrast control
- Mesh healing and sculpting
- Model and point cloud scaling, translation, and rotation
- Support different dithering algorithms with precise spacing and sorting control
- High degree of precision and control
- Configurable GUI to adapt to customer specific workflow
- Open Tool Extension API to supports new plug-in tools and algorithms
- Easy interface to 3rd party applications
- Support international languages

Systems Environments --- 3D Camera LE-SC ■ Microsoft Window NT4.0, 2000, and XP.

- UNIX (HPUX, Solaris, SGI, and Linux)

- RAM: 512M or more recommended
- Free Hard Disk Space: 100M or more recommended
- Stylus pressure sensitive pad is recommended but not required

Technical Data --- 3D Camera LE-SC

Capture Time	< 0.5 second
Texture Image Resolution	> 6.1M pixels
Field of view	700 mmx450 mmx200 mm (1~3 persons)
Weight	~ 10 kg
Physical dimension	240 mm x 190 mm x 360 mm
Geometry Accuracy	0.2-0.5mm (~ 0.5 %)
Distance to object	1.0 m ~ 1.2m
Operation Modes	1. Direct computer control using USB cable 2. Manual control using release cable (Can capture models without computer attachment)
Power Supply	< 50W; 110V to 240V AC, or 12V DC.
Working environment:	10 to 35 degrees C
Mounting Positions	Vertical or Horizontal, standard camera screw
File formats	GIF, JPEG, TIFF, BMP, and others
Input formats	XYX, 3DS, DXF, CAD, STL (both ASCII and binary), OBJ, PLY, GSF, CAM, CDM, CAD, VRML
Export formats	Point cloud in CAD, DXF, and XYZ formats

Remarks:

1. The 3D camera can capture face, chest and head.
2. 3D Reconstruction angle scope from 0~180° at only one view direction.
3. 3D Reconstruction include: face/hair/eye/teeth and so on. Meanwhile, the double camera supplies the 360° solution.
4. Two times capture by the double camera, software process images for a few minutes; you will get the whole (360°) 3D human model.

Comparison --- Lelee 3D Camera & Other 3D Camera

Parameters	Lelee 3D Camera	Other 3D Camera	Video based scanner
Highest Image Resolution	Full 6.1 MB pixels (LE-SC 3D Camera)	Less than 3M at most. (1/2 of 8M)	Less than 2M image. (1.5M)

Tolerance to Ambient Lights	Special raster display design, capable working in almost all lighting environments.	Working only in a dark environment and sensitive to ambient light changes.	Lot more sensitive to ambient light. Very sensitive to people movement.
Flash Lighting Arrangement	Multiple flash lights option and customized light arrangement to produce more lively images.	No customized flash light arrangement.	No flash lighting at all
Dual-Scanner System	Dual-Scanner Option for Complete Ear to Ear Coverage in a single shot. Easy to upgrade to dual capturing system. Able to capture full turn around 360 degree images.	No dual scanner system near the LE-SCX2 price level.	No dual scanner configuration at this price level.
Accurate Geometry Capturing	Using two top quality SLR digital cameras. (More)	Using single dummy camera. Mirror distortion. Non-symmetric lens utilization	Use video low resolution camera