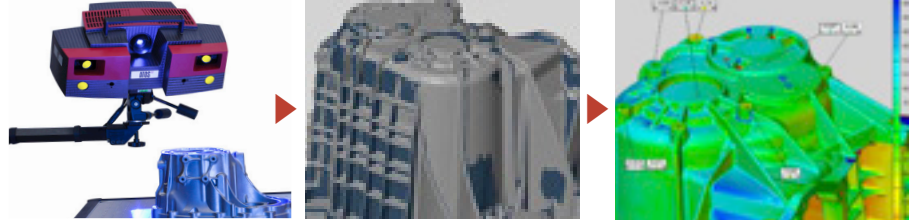
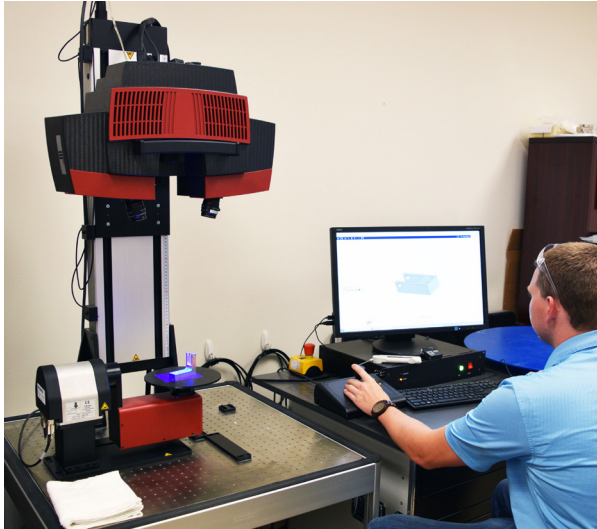


3D SCANNING SERVICE

With high precision 3D scanning, we can convert the surface shape of the sample into a 3D representation. It can be used for benchmark research of R&D and dimension inspection of quality assurance.



PROCEDURE

STEP 1. Blue Light Scanning

Irradiate the pattern from the projector, scan shapes with two cameras

STEP 2. Polygon Meshes • Align

Mesh the scanned point cloud data, and compare it against the CAD model

STEP 3. Reporting

Use software (GOM Inspect) to create reports

SPECIFICATION ATOS III - TRIPLE SCAN

Camera Pixels	8 000 000 × 2		
Scanning Points	8 000 000		
Lense Type	MV 100	MV 320	MV 700
Accuracy	± 5µm	± 16µm	± 28µm
Scanning Range (mm)	100 × 75 × 70	320 × 240 × 240	700 × 530 × 520
Point Spacing	0.032 mm	0.104 mm	0.213 mm

USE

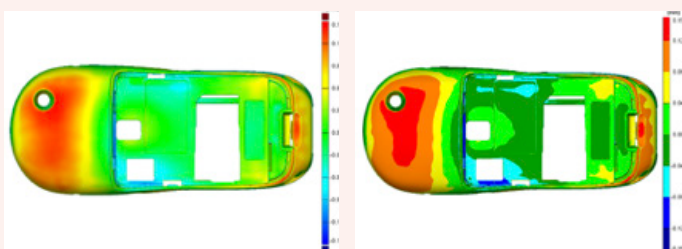
- Die cast product thickness evaluation
- Deformation and interference assembly analysis
- On-market part to newly-manufactured part comparison
- Injection molding parts 3D analysis by CAD
- Accumulating 3D data for press molding
- STL data acquisition for reverse engineering
- STL data acquisition for 3D printing

FEATURE

By replacing the camera lens, the blue light scan enables precise 3D data conversion of objects from small to large objects. From 3D cloud data, it can perform dimension measurement, comparison analysis with CAD model, reverse engineering and more.

CASE STUDY 1 : PART TO CAD COMPARISON

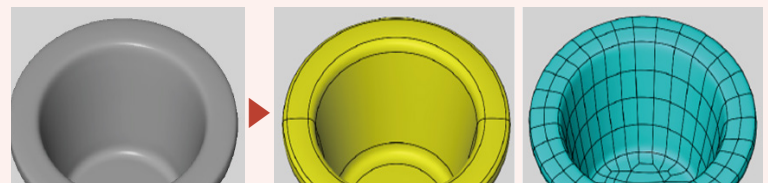
Identifying deviations for injection molded parts could be a challenge due to sinking, warping and shrinkage. Comparing the scanned data with the CAD model and making the deviation into a color map enables overall shape evaluation and dimension management.



Surface analysis color mapping

CASE STUDY 2 : REVERSE ENGINEERING 3D PRINTING

Blue light scan, also called a three-dimensional digitizer, is a measuring device that converts to three dimensions and digitizes. Scanned 3D cloud data can be output in STL format. It can be used for reverse engineering and 3D printing.



STL data from scanning

CAD model from reverse engineering