

MICRON3D

green stereo

3D SCANNERS
FOR PROFESSIONALS



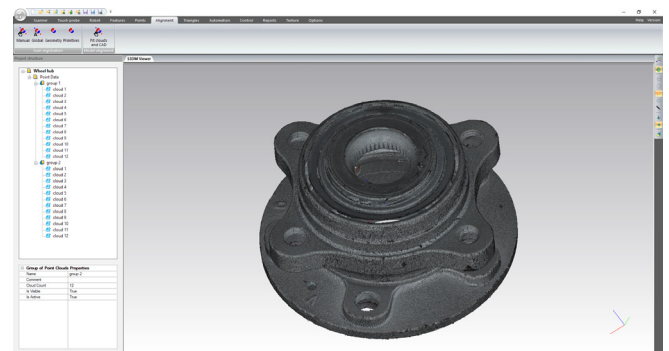
MICRON3D green stereo is the most accurate 3D scanner from the SMARTTECH offer aimed at industrial applications.

The product fits perfectly the needs of modern enterprises that value technological solutions within the framework of the industry 4.0 ideology. Due to its metrological verification and high parameters, the system will be a perfect tool for quality control and reverse engineering.

This model uses green LED light with a wavelength of 500 nm for measurement, which guarantees a failproof system. Thanks to the use of narrowband filters eliminates the influence of external lighting. High-class monochromatic detectors, responsible for stereoscopic measurement, eliminate measurement noise and dual directional projection of fringes guarantees higher precision the digital description of sharp edges of measured objects.

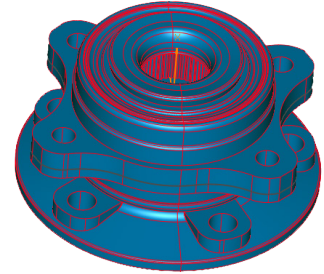
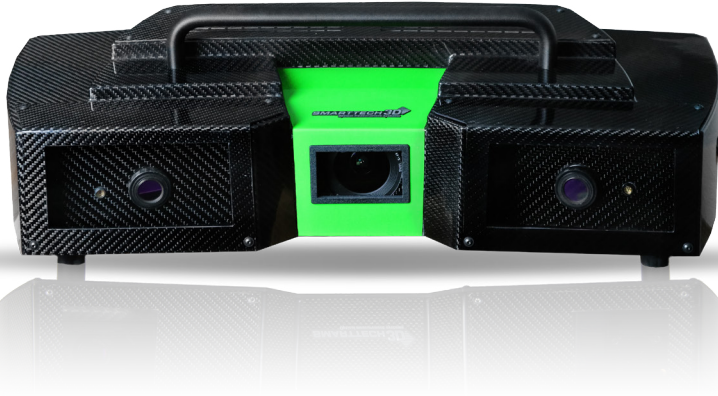
MICRON3D green stereo features:

- Stereoscopic measurement with two detectors use
- New measurement method - Dual Direction Stripes (DDS)
- Housing and Construction made of heat-resistant carbon fibers
- Higher measurement accuracy and prolonged systems lifespan due to green LED light
- Improved surface and edge reconstruction
- Precise quality control - scan to CAD comparison

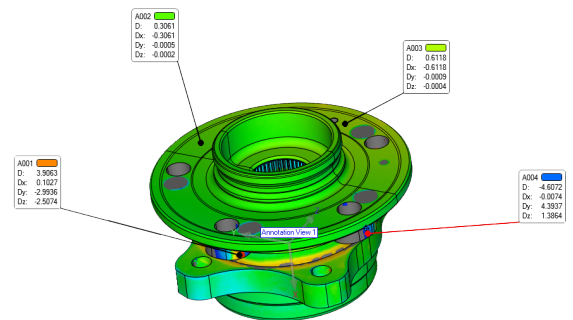


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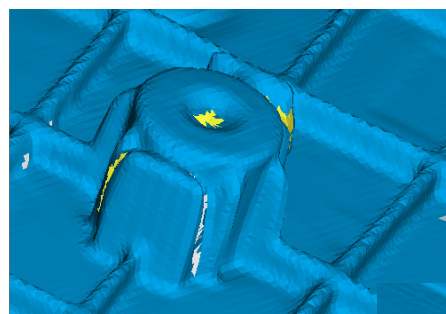


The accuracy of 17 microns and the durability of the MICRON3D green stereo scanners have been confirmed by field tests conducted by SMARTTECH experts and independent units. The scanner has been designed to provide users with reliable operation while maintaining full mobility. Its housing and load-bearing structure are made of modern and temperature-resistant carbon fiber. Special construction solutions dampen outside vibrations and an exchangeable dustproof filter protects the interior of the device. Those features make the MICRON3D green stereo reliable scanner fit both for laboratory and directly for use on production lines.



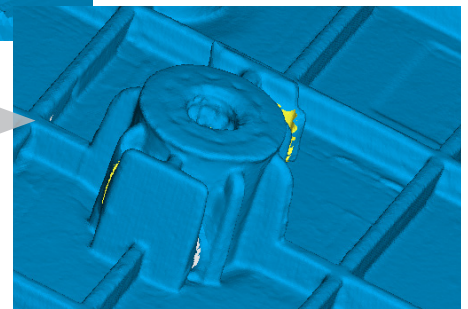
The scanner is available in three basic resolutions: 2x5 MP, 2x9 MP, and 2x20 MP for application that focus on high detail representation. The system can be additionally equipped with a set of exchangeable lenses allowing a customer to change the scanning volume and adopt to different dimensions or complexity of scanning details.

MICRON3D green stereo 20-20 MP is the top-notch model. It is characterized by the highest measurement resolution (20MP) on the market, which allows the recreation of the smallest details of the scanned object, even when their dimensions do not exceed 1mm. The high resolution of the new 3D scanner allows increase the efficiency of scanning larger objects with a high degree of complexity and fully automate the scanning process. One scan with a field of 420mmx300mm made with this scanner corresponds to a resolution of 4 scans using a 5 Mpix scanner with an area of 150mm x 105mm. This makes it possible to carry out detailed quality control of both large and small parts without hardware modifications that further optimize the time of the scanning process for parts of different sizes.



Triangle mesh from a 3D scanner with a resolution of 5 MP

Triangle mesh from a 3D scanner with a resolution of 20 MP



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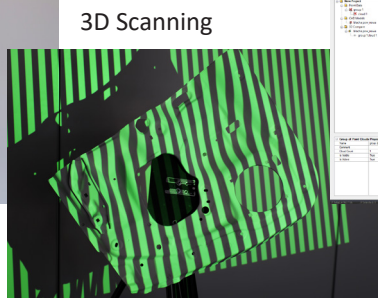
green stereo

MICRON3D green stereo scanner is equipped with a dedicated software - SMARTTECH3Dmeasure, featuring functions for control and automatization of scanning process, advanced data edition, and quality control.

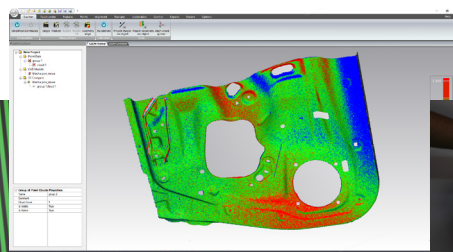
The software connected with the scanner allows the user to immediately start a comprehensive process of digitizing the measured objects, guiding him through scanning and data processing up to a closed model ready for 3D printing or generated a control report in a universal PDF format. Thanks to the unique data management algorithms SMARTTECH3Dmeasure ensures smooth work with point clouds with even over 300 million points on standard laptops. The built-in function of adjusting the projection intensity and other measurement parameters allows to scan also objects with a dark or glossy surface.



A part for Quality Control

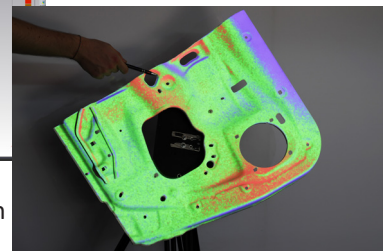


3D Scanning



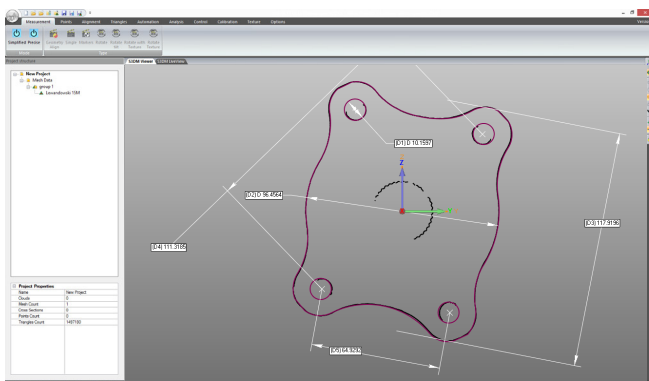
Quality Control in the SMARTTECH3Dmeasure program

Color deviation map displayed on the object



Measure, control, and present directly on the object

Following the SMARTTECH philosophy of providing comprehensive measurement solutions, the software has been equipped with the main tools necessary for quality control. Thanks to this, in one software, the user will perform, among others, segment measurements, calculate the surface area and volume of the scanned object and generate a color map of deviations in relation to the reference model. An additional advantage of the system is the ability to project a color deviation map directly on a real object in order to visualize them for inspection and repair purposes.



MICRON3D green stereo is a professional, factory-calibrated metrology tool, certified by the manufacturer according to the German VDI / VDE 2634 standard, and its measurement accuracy can be additionally confirmed by a certificate of an independent accredited metrology laboratory.

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Technical Specifications:

Resolution	5-5 MP		
Scanning Technology	Structural green LED light		
Measurement field [mm ²]	150x105/220x180	260x165/300x200	420x300/480x350
Distance between pts [mm]	0,055/0,085	0,085/0,115	0,155/0,185
Sampling [pts/mm ²]	324/139	121/75	38/29
Accuracy[μm]	17	22	33

Resolution	9-9 MP		
Scanning Technology	Structural green LED light		
Measurement field [mm ²]	120x75/160x85	240x140/320x175	420x220/510x290
Distance between pts [mm]	0,029/0,039	0,058/0,078	0,102/0,124
Sampling [pts/mm ²]	1170/658	292/164	95/65
Accuracy[μm]	17	22	33

Resolution	20-20 MP		
Scanning Technology	Structural green LED light		
Measurement field [mm ²]	150x105/220x180	260x165/300x200	420x300/480x350
Distance between pts [mm]	0,027/0,040	0,047/0,054	0,076/0,087
Sampling [pts/mm ²]	1362/633	453/341	174/133
Accuracy[μm]	17	22	33



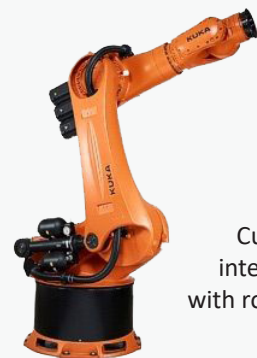
Automatic Rotary Stage:

- max load 15kg, diameter 200mm
- max load 60kg, diameter 500mm
- max load 300kg, diameter 500mm

Additional Accessories:



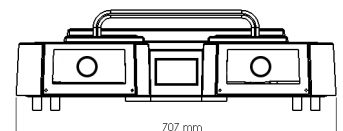
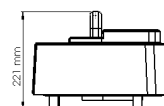
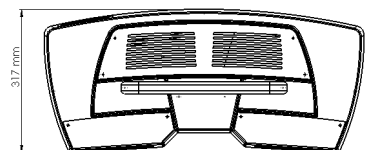
Easy and quick volume exchangeability.



Custom integration with robotic arm



Waterproof transport case



Nasi klienci:

