NEW!
3D scanner

SMARTTECH 3D
Optical measurement systems

MICRON3D
color 24Mpix

MICRON3D color is a complex solution for precise 3D digitalization of detailed objects with real color capture. It is best tool for documentation and conservation purposes where shape and texture are crucial.

3D scanning result:
colour cloud of points with 700 pts/mm²

WHITE LED light technology

Growing demands from the archaeological and preservation markets inspired SMARTTECH engineers to develop a brand new solution. New scanner was created for accurate digitalization of the colorful objects both in 3D scanning workshop and during real-time excavations.

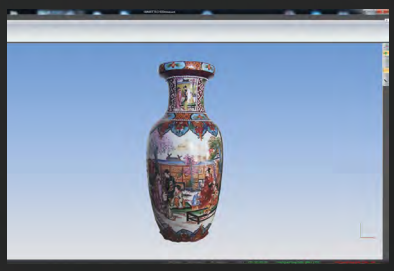
MICRON3D color is a 3D scanner dedicated to eternal archiving of historical objects. It is equipped with a detector of the highest resolution available on the market (24 Mpix).

Combining the highest density of points (over 1000 pts/mm²) with 24 bit color capture allows documentation of smallest details of scanned objects such as micro scratches and tool marks.

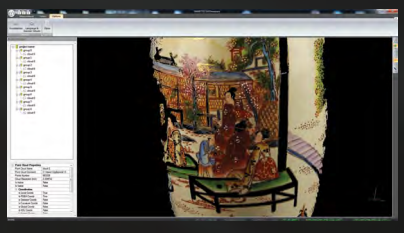
This high technology, device was designed to be user-friendly and can be operated easily by first time users. Thanks to implemented plug-and-scan launch, scanner doesn't require additional end user calibration and is ready to work directly after taking it out of it's case.

High measurement resolution allows the user to gather information about objects with very complex structures, such as ceramic ornaments, clothes, and oil paintings, which, until now, were very problematic for 3D scanning. The highly sensitive detector enables simple digitization of shiny and dark surfaces alike. Furthermore, full integration with shadeless system makes it possible to capture the scanned object's real color.

All of these features make MICRON3D the most effective tool for archaeologist, biologist or art restorers. It is also good choice for demanding animations, colorful 3D printing or computer gaming.



Triangle mesh with texture
for colorful 3D printing.



Perfect color visualization thanks to
RGB space suit.

SMARTTECH 3D
Optical measurement systems

MICRON3D color is the only 3D scanner available on the market with the ability to take high resolution scans with verified measurement values while maintaining the true color of the scanned object.

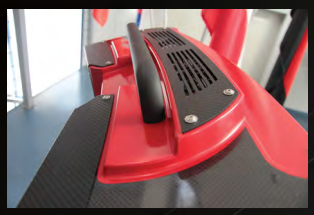
MICRON3D's carbon fiber housing, replaceable dust-proof filters, and resistance to temperature fluctuations allows the operator to scan on-site at excavations without the risk of damaging the sensitive interior of the device.

A dedicated mobile workstation is provided with the leatest version of SMART-TECH3Dmeasure software, which enables advanced and automated data post process-ing such as: cloud of points or triangular mesh edition. Both measurement and edition is performed in one software which shortens the learning curve. Due to big amounts of gathered data the environment has been designed for seamless work with data exceeding 300 million points what gives user freedom to choose level of details he works on.

Standard set includes: stable tripod with gimbal mounting head, fully integrated workstation, laser pointers for precise 3D scanner positioning, and hard case for traveling.

Optionally the 3D scanner can be equipped with fully integrated and automated rotary stages for objects of different sizes and weights and shadeless system for real texture capture. This allows user to automate the 3D scanning process, as well as to further reduce the time needed for data postprocessing.

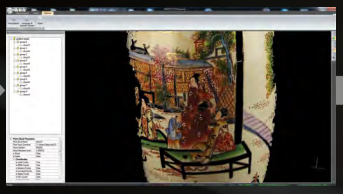
Modern carbon cover



Dustproof system with industrial filter

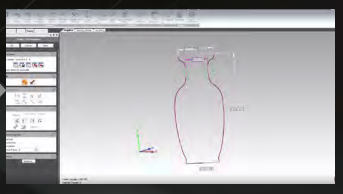
Step by step - 3D scanning process and virtual research over the object.

3D measurement with automatic shadeless system.



Result of measurement presented as point cloud (X,Y,Z, RGB).

Automatically created triangle mesh.



Virtual cross-section and dimensioning.

SMARTTECH 3D measure v.2019

The 3D scanner is equipped with the SMARTTECH3Dmeasure software, which supports 300 million measurement points. During the scanning process, the 3D scanner obtain information about the shape of the object in X, Y, Z coordinatesnd realistic texture mapping at each measurement point (RGB colors). The software allows to automatic calculation of surface area and perimeter. Thanks to advanced functions and intelligent algorithms - creating documentation and 3D models has never been so easy and convenient.
In addition, the new functionality of changing the „sensor sensitivity" parameter allows to 3D scan of dark objects.

Original and copy from 3d printer.

Technical specification	24 Mpix			
Scanning technology	White LED structured light			
Measuring field [mm²]	150 x 200	200 x 300	300 x 400	400 x 600
Distance between points [mm]	0,033	0,050	0,067	0,100
Sampling [points/mm²]	900	400	225	100
Accuracy [µm]	40	50	70	100

Scan the QR code to see the movie of 3D scanning process with 24Mpix 3D scanner and real texture color of scanned object.

Our Clients:

Central Office of Measures

Polish Army

國立臺灣史前文化博物館 NATIONAL MUSEUM OF PREHISTORY

BOEING

NASA

Polytec

POLYTEC GmbH
Tel: +49 (72 43) 604 174 0

Polytec-Platz 1 - 7
Fax: +49 (72 43) 6 99 44

D -76337 Waldbronn
E-Mail: ot@polytec.de

GERMANY
www.polytec.de