

PRESS RELEASE

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SMARTTECH 3D scanning technology is entering aerospace market.



3D printing is already established technology in aerospace industry. Helping part designers who use it to materialize their prototypes, as well as printing already working components. On 3D printers producers webpage we can find dozens of different application stories about the usage of their technology not only by smaller subcontractors but also by bigger players like Boeing, Airbus and Lockheed Martin.

Just as important is using 3D scanning technology during design and production process. Moreover in opposite to 3D printing, Data received by 3D scanner can be used for wider number of application.

Point cloud made by 3D scanner can be further processed in different software dedicated for CAD modeling, complex quality inspection as well as various simulations.

Jet Engine is an extraordinary complex structure that require outstanding measurement precision Received results can influence the whole working process. Therefore measurement process must be provided on metrological certified machines, so the results have to be referential just like they are when using CMM machines so the range of measurement field could reach difficult to access spaces.



Using a 3D scanner to measure such huge and complicated object allowed not only to save time and money but also significantly influenced SMARTTECH products development.

However the engines volume as well as it's complexity, depth and sharp edges, caused that traditional way of measurement required usage of very huge and expensive CMM Machine. Time money and risk of damage during engine transportation excluded that possibility.

SMARTTECH was requested to provide measurement process using one of their 3D scanner DUAL VOLUME (<http://smarttech3dscanner.com/3d-scanners/for-industry/scan3d-dual-volume>) with resolution of 10 Mpix It allowed to gather 10 millions of points that exposure scanned surface within few seconds and with accuracy of 50 microns. Additionally 3D scanner was required to be certified in

Independent measurement laboratory. Due to depth of scanned object SMARTTECH modified 3Dscanner triangulation angle parameter by adjusting the appropriate position of projection system and the detector.

3D scanning of a jet engine allowed us to develop our 3D scanners under specific requirement of adjusting the triangulation process - in other words - we faced the demands of very complicated process of adjusting positions of detector and projection system together with adapting software algorithms of point cloud computing. - says Mr. Darek Jasinski - Director of SMARTTECH R&D Department - having such advantages we are able to get to very thin and deep hole and receive very nice results. Such solution is crucial not only for aerospace industry but also for all other customers that require complex deep measurement with very high resolution.



Gathered point cloud was further processed in the most powerful software dedicated for scan data post processing and CAD modeling - Geomagic Design X. However due to standard data extension, they can be used in different most popular software for CAD designers.

After receiving CAD model of scanned engine, Polish MTU Branch expressed their willing in future cooperation with SMARTTECH by issuing reference letter. (<http://smarttech3dscanner.com/smarttech-3d-scanners-in-aerospace-industry/>)

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Read more about SMARTTECH:

<http://www.smarttech3d.com>

Read more about MTU : <http://www.mtu.de/>



MTU Aero Engines Polska Sp. z o.o.
Polskie Przedsiębiorstwo Inżynieryjne

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REFERENCJE

Firma MTU Aero Engines Polska Sp. z o.o. niniejszym zaświadcza, że współpracowała z firmą SMARTTECH Sp. z o.o. w zakresie świadczonych przez tę firmę usług skanowania i modelowania 3D.

Firma SMARTTECH wykazała się profesjonalizmem i rzetelnością przy realizacji usług pomiaru 3D skomplikowanych obiektów, a następnie na podstawie skanowania 3D wykonała dla nas dokumentację CAD 3D. Dzięki zastosowaniu wysokiej jakości skamera 3D i w połączeniu z zaangażowaniem doświadczonych zespołu inżynierów firmy SMARTTECH, usługę wykonano bez żadnych zastrzeżeń. Dodatkowym atutem było wykorzystanie w tym procesie urządzenia, którego dokładność pomiarowa została potwierdzona certyfikatem wydanym przez niezależne Laboratorium.

Profesjonalizm i wysoka jakość usług świadczonych przez firmę SMARTTECH pozwala nam polecić ją innym, jako solidnego i wiarygodnego Partnera.

Z poważaniem,

[Signature]
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