

A. B. Engineering

Engineering Solutions

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About the company

A.B. Engineering was founded by Irakli (Ika) Baitish in 2012 due to a an unmet countrywide demand for CATIA specialized companies, which can provide services in different fields of engineering using the CATIA CAD system.

The first project was a large scale design of Tooling for the BOEING 787 program, for FBM Ltd. Based in Kiryat Gat.

A.B. Engineering has created hundreds of tools needed for production of parts made of composite materials according to the strict demands of BOEING Inc.

Since then we have provided different services to many companies in Israel and abroad.

The Team

Irakli (Ika) Baitish - Owner/CEO

Studied Practical Mechanical Engineering in Technion Haifa 2002-2005

Before starting the company worked for

ISCAR Ltd. – Dassault CATIA V5 expert: support, teaching courses, implementing methodologies

Yael Software Inc. - Dassault CATIA V5 expert: support, teaching courses, implementing methodologies

PLASAN SASA Ltd. - CAD/Methodologies manager: Implementing CATIA V5 into the organization.

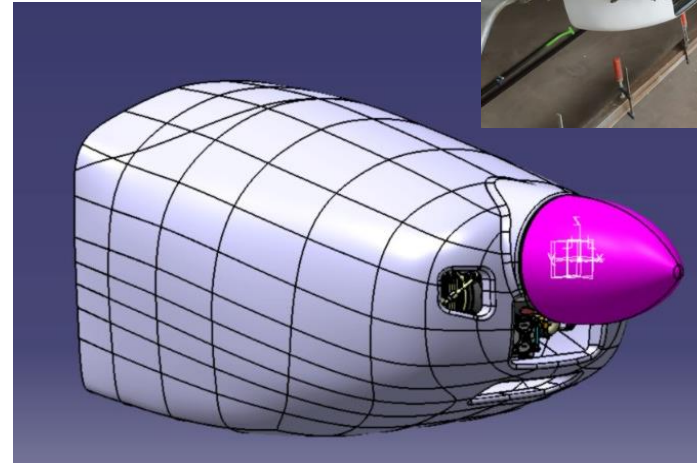
Expert in CATIA V5/V6

Has taught numerous courses in CATIA V5/V6 to all major companies in Israel

Expert in reverse engineering using various methods including 3D scanning

Expert in Mold design for various manufacturing technologies

Designing Armored vehicles



The Team

Yury Gurevich – Mechanical Engineer

Studied “Science in Education Mechanical Engineering” in Technion Haifa 2011-2018

Working for A. B. Engineering from 2018

Interests include Robotics and Mechanics.

Has deep knowledge of CATIA V5, including working with large assemblies and different Methodologies

Reverse engineering using different 3D scanners and different CAD programs

Worked on different projects including

Armored civilian/military vehicles

Tooling and jigs for large composite materials aerial vehicles

Molds and tooling for various plastic manufacturers



The Team

Dima Sladkov– Mechanical Engineer

Studied “Science in Education Mechanical Engineering” in Technion Haifa 2013-2018

Started working for VIPRO-H.R. GIVON Ltd. In 2006 as a CNC operator, later became a CNC shift manager, 2017 has started a position of Manufacturing engineer.

Has great knowledge in CNC operations and metallurgy.

Working for A. B. Engineering from 2019

Working in CATIA V5/V6 , including working with large assemblies and different Methodologies

Worked on different projects including

Armored civilian/military vehicles

Tooling and jigs for large composite materials aerial vehicles

Molds and tooling for various plastic manufacturers



The Team

Elena Shinkar – Mechanical Engineer

Studied

Practical Mechanical Engineering in Ort Kiryat Bialik 2018-2020

Practical Computer Engineering in in Technion Haifa 1998-2000

Started working for VIPRO-H.R. GIVON Ltd. In 2004 as a technologist, later started creating CAD models of jigs and fixtures, writing internal methodologies.

Has been working in CATIA from 2006.

Knowledge in different CATIA V5 modules including Part Design, Surfaces, Drawing and FTA (GD&T)

Has great understanding of various Aerospace related drawing standards and procedures.

Started working for A. B. Engineering in 2020

The Team

Pavel Golomb – Mechanical Engineer

Studied Practical Mechanical Engineering in Technion Haifa 2002-2005

Worked for Various firms in the Aluminum Industry including Blisania, Alubin as a product Engineer

Knowledge in different CATIA V5 modules including Part Design, Surfaces, Drawing

Started working for A. B. Engineering in 2021



The Partners



Fields of work

- Working with CATIA V5/V6 including product design, engineering, drawings and production using various modules including part design, assembly, surfaces and reverse engineering.
- Knowledge in composite materials, molds, tools, layup design
- CATIA V5/V6 integration into an organization including customization and courses to the engineers
- In house 3D Scanning capabilities using different 3D scanners for both small and large parts, including scanning, reverse engineering to the level needed by the client, production drawings with consideration of manufacturing capabilities of the client.
- Creating parts from old 2D drawings (very common in aerospace industry), deep knowledge of different aerospace manufacturers standards.
- Creating tooling for manufacturing of aerospace parts (Aluminum, Titanium, Composite materials) including Molds, Jigs, Fixtures
- Armored vehicle design in collaboration with leading Ballistics experts in the country, including detailed design of parts and production drawings
- Recreating old/broken/worn out parts from leftovers using advanced scanning and modeling capabilities
- Deep understanding of manufacturing techniques and practices in various industries

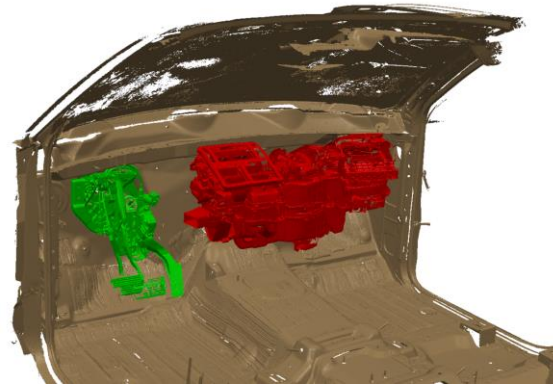
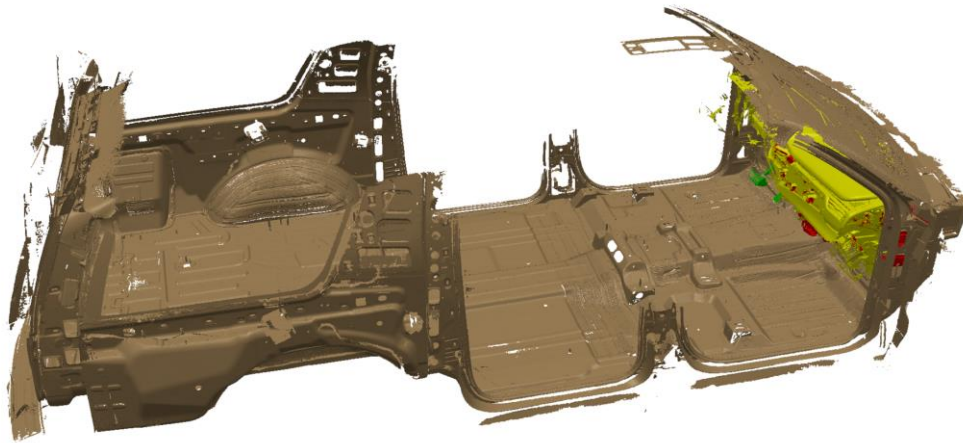
Armored Civilian Vehicles

Complete 3D scan of vehicles

Design of Armor plating and interior pieces



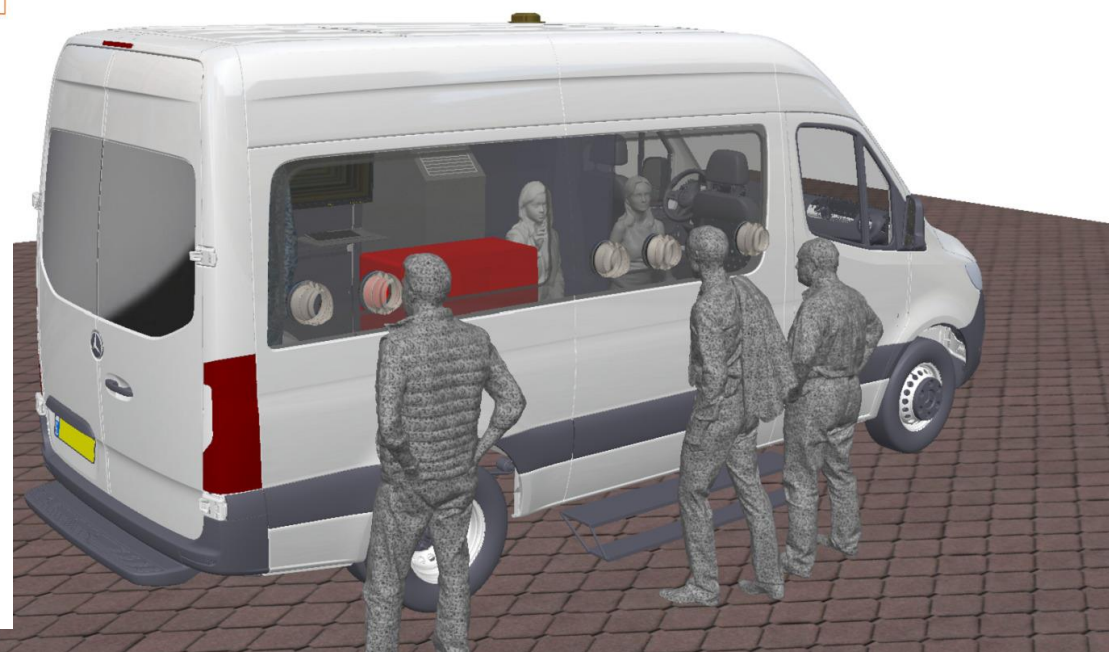
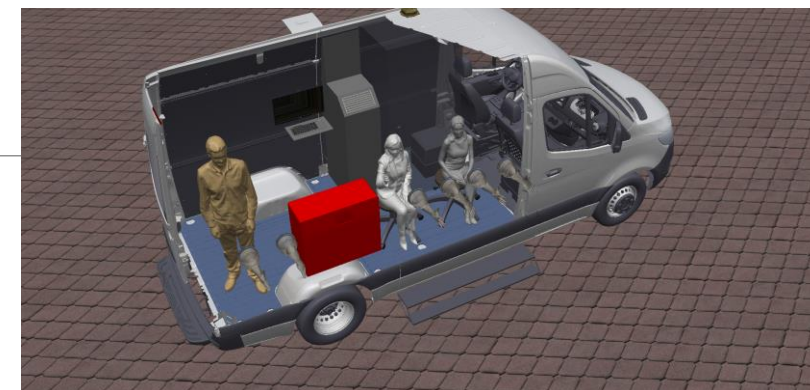
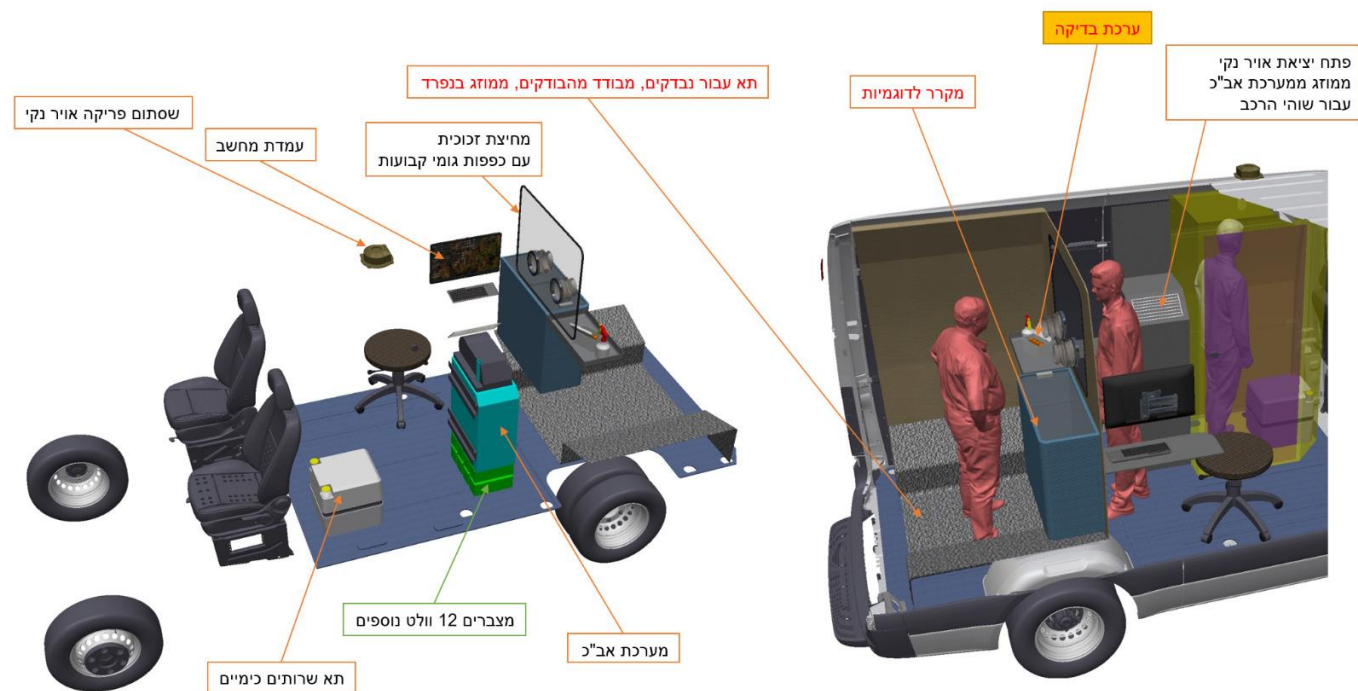
3D Scanning of entire vehicle



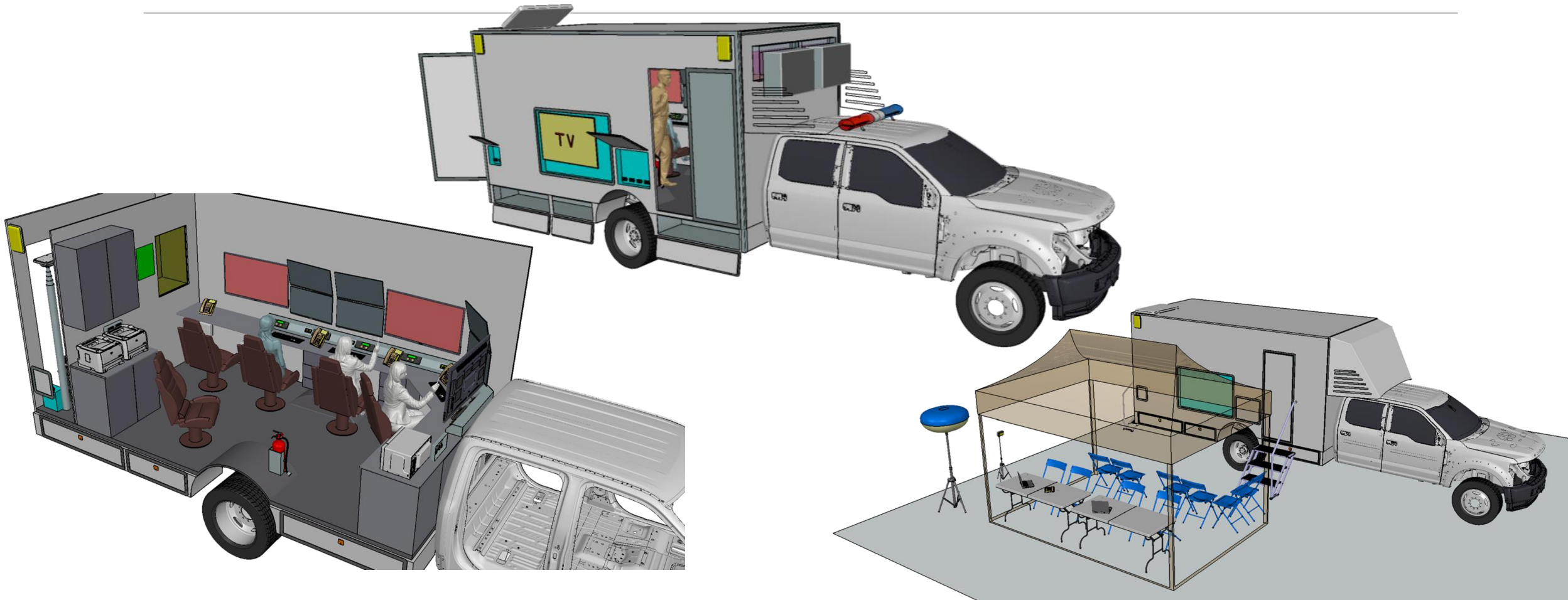
Complete Armor Solution



COVID mobile lab for MADA, designed and ready for production



Mobile Command Center Complete design and ergonomic study



Vertical Wind turbines complete design and production

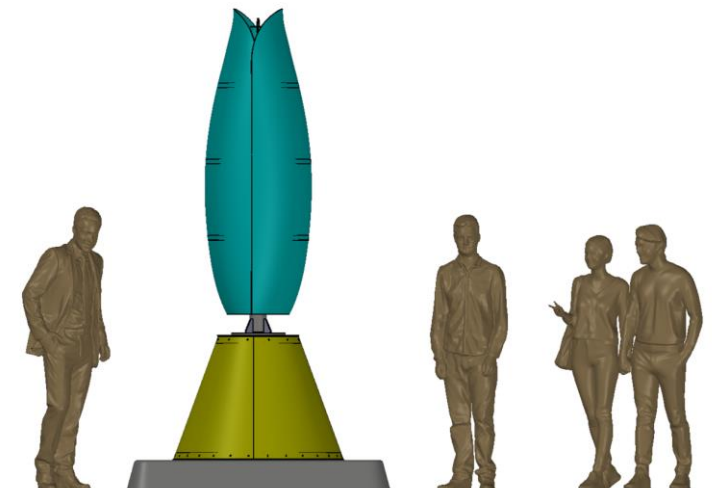
Blades made out of Composites, Mold and Shaft Design preparation for serial production



1 Meter Blade Vertical Wind Turbine 500Watts



2 Meter Blade Vertical Wind Turbine 2Kw



Tooling for Aerospace parts production

Reverse engineering using old production drawings,
Mailers, 3D scans, legacy data



Composite material
Tooling for Composite material Parts



Tooling for Composite material Molds

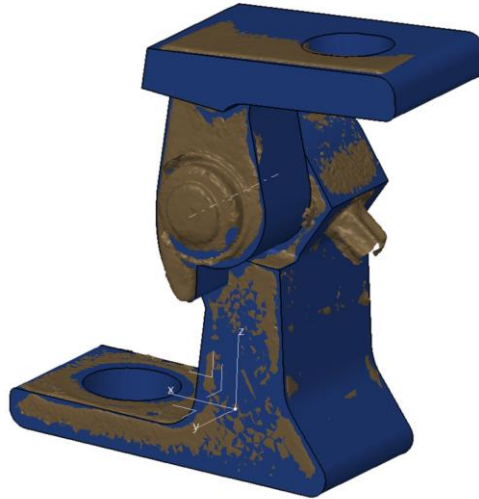
Using various 3D scanners and software to reverse engineer various parts and assemblies, from small door hinges to entire vehicles / airplanes



Actual Vehicle
3D scanning



Scan Data



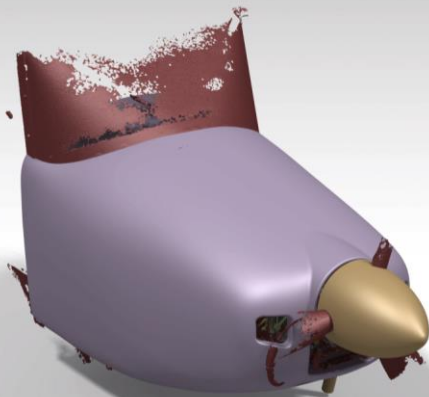
Modeled Door Hinge Assembly



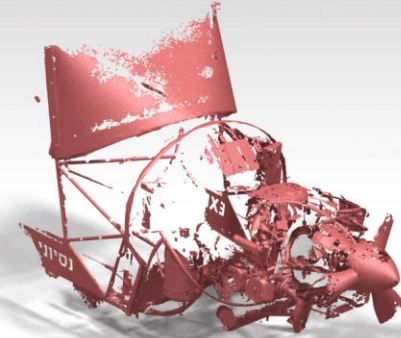
3D scanning an ultralight airplane for front engine cover redesign after engine swap from Radial to Boxer



Model of new engine cover in CLASS A surface quality, ready for production



3D Scan of nose of aircraft using in-house 3D scanner



Aligning of scan data with Engine CAD

