



3D printing applications

Bárócz Magor

additive manufacturing engineer magor.barocz@admasys.ro

Company presentation

- Admasys RO was established in 2022 with the goal of providing professional and specialized services to clients and companies within the rapidly evolving 3D technology market.
- We deliver professional solutions in additive manufacturing (3D printing) tailored to meet the most stringent requirements. Our offerings include 3D printers, high-quality accessories, 3D scanners, specialized software, consumables, and expert services in customized 3D printing, as well as training, maintenance, and technical support.





We find the optimal solution

- Every product in our range is thoroughly tested under real operating conditions, which guarantees its quality 100%. You can choose from a wide variety of 3D printers, scanners, materials, and accessories.
- Do you have doubts about the practical benefits of 3D printing? Take advantage of our 3D printing applications center in Odorheiu Secuiesc—discover with us the opportunities for use and the benefits of additive manufacturing.

Ultimaker





















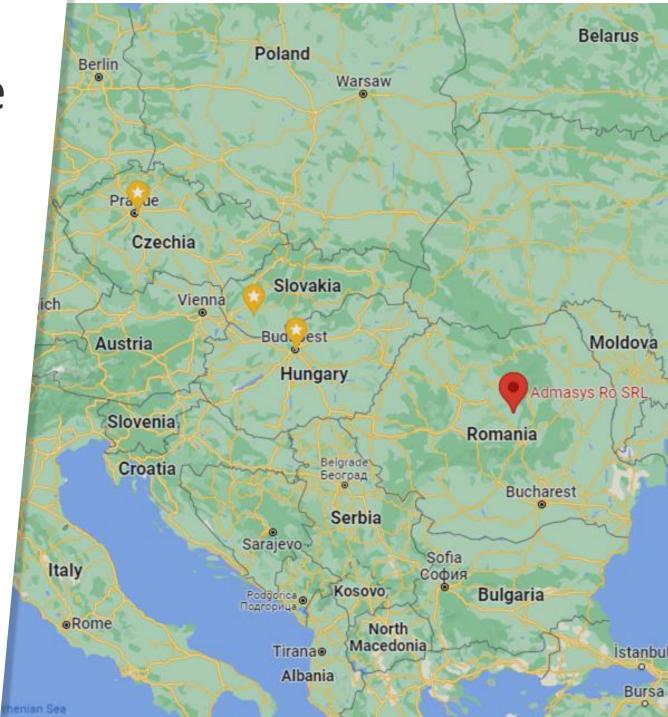




We are part of a large international group

- We are part of the ADMASYS
 International team, which operates
 in four countries in Central and
 Eastern Europe:
 - Admasys RO SRL Romania;
 - 3Dwiser s.r.o. Check Republic;
 - ADMASYS SK s.r.o. Slovakia;
 - FreeDee Printing
 Solution Kft. Hungary;





Satisfied clients

Ontinental**⅓**







DYMOS

AVITUOS

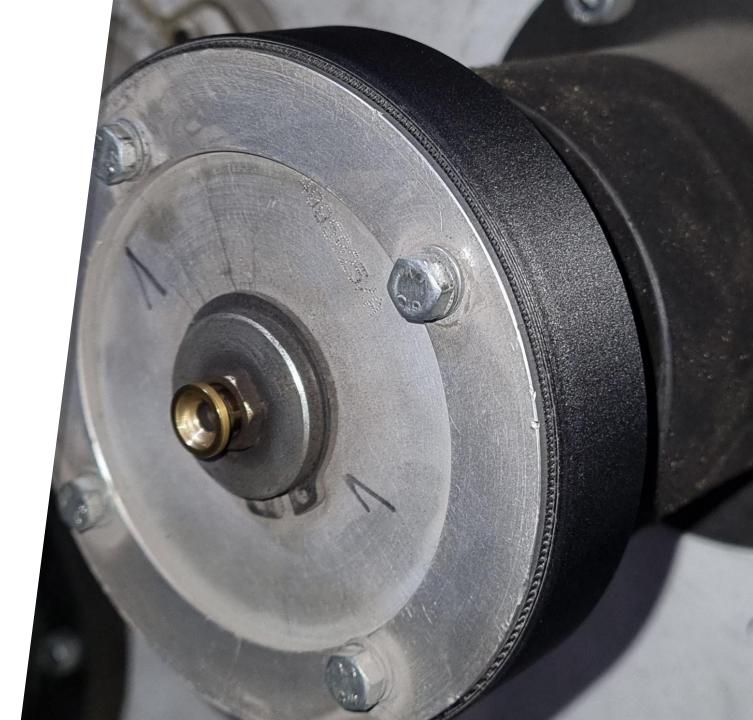
SHIMANO

SIEMENS Ingenuity for life



and thousands more





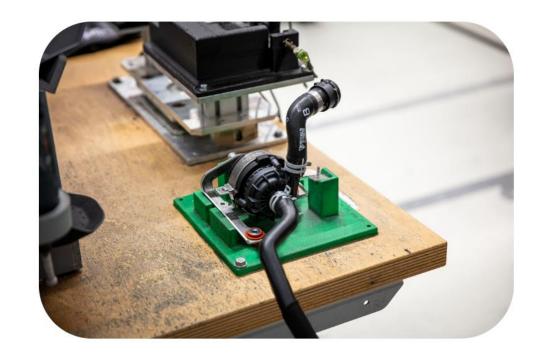
UltiMaker - Audi

- More than 200 custom jigs and fixtures printed for the E-Tron GT production line
- Fast production times (1-2days vs 2-3weeks)
- Reduced cost (80%)
- Versatile materials (Tough PLA, ESD, TPU 95A, ABS, PETG)

3D printed jigs and fixtures on 26th of June / 16:00 CEST











Markforged -Harvestance

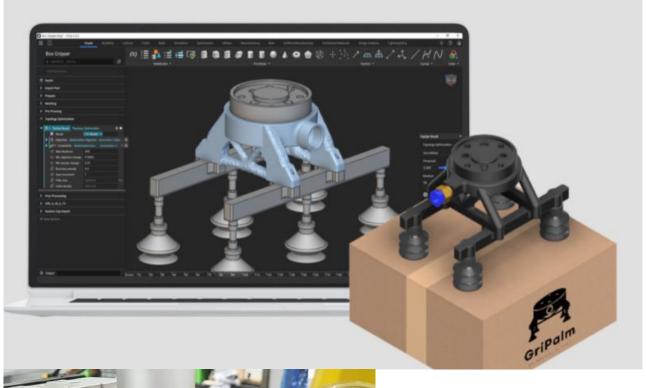
• Issue:

- limited capacity of collaborative robots (20kg)
- o complex geometry grippers
- interference of pneumatic tubes with robot movement

Solution:

- By using Markforged' Onyx PA6-CF material the reduction of weight by ~80%
- Designing with 3D printing in mind, integrated vacuum lines







Markforged

Continuous fiber reinforcement:

For parts that need Aluminum strength and lightweight

- Carbon Fiber
- Kevlar
- Fiberglass
- Heat resistant fiberglass

Other materials:

- Vega™ (PEKK-CF)
- ULTEM™ 9085
- Onyx FR(-A)
- Onyx ESD
- Smooth TPU 95A
- Precise PLA
- Nylon







miniFactory - HEINZ-GLAS

Ultrapolymers used in glass manufacturing process: (glass decoration / printing)

High temperature resistance needed beside the need to withstand UV radiation and harsh chemicals.

Material of choice: Kimya PEI-1010 (ULTEM AM1010F)

operating temperature: 200C

flame resistant UV resistant

Chemically resistant

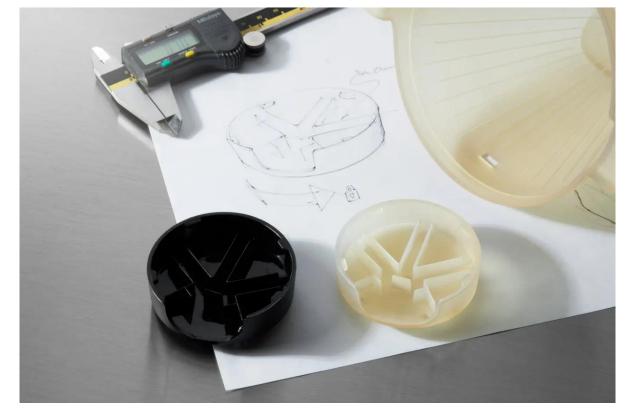




Formlabs - OXO

Design iterations using Form4 LFD resin printer

- Hundreds of new products to the market in a short timeline -> no time for long testing period
- Prototypes needed with injection molded like finishes out of the printer
- Rigid, semi-flexible, flexible materials
- Functional prototyping is mandatory for hand-held products, for ergonomy tests. Simulations, renders are not enough.









Hans-Weber -BMW

Large scale gripper production with pellet 3D printer

- Used in combination with robotic arms, these jigs are used for car body part manipulation.
- 80kg assembly as printed

- Gantry system and robotic system available
- Can be used for large casting form printing
- Furniture printing







Achieve more with 3D technologies

https://admasys.ro/ office@admasys.ro