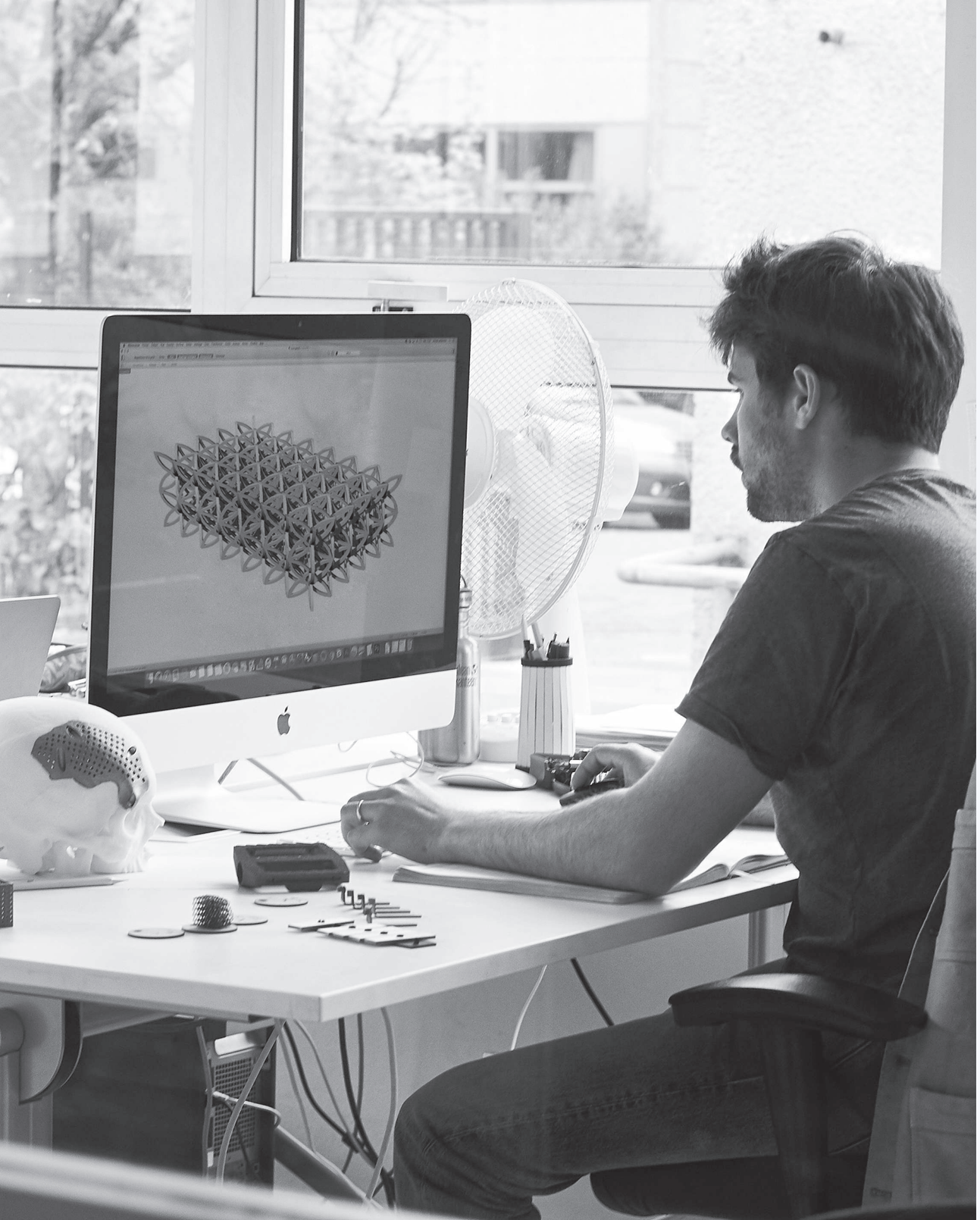


Sculpteo Studio

Harness the potential of additive manufacturing with Sculpteo Studio, our team specialized in Design for Additive Manufacturing.

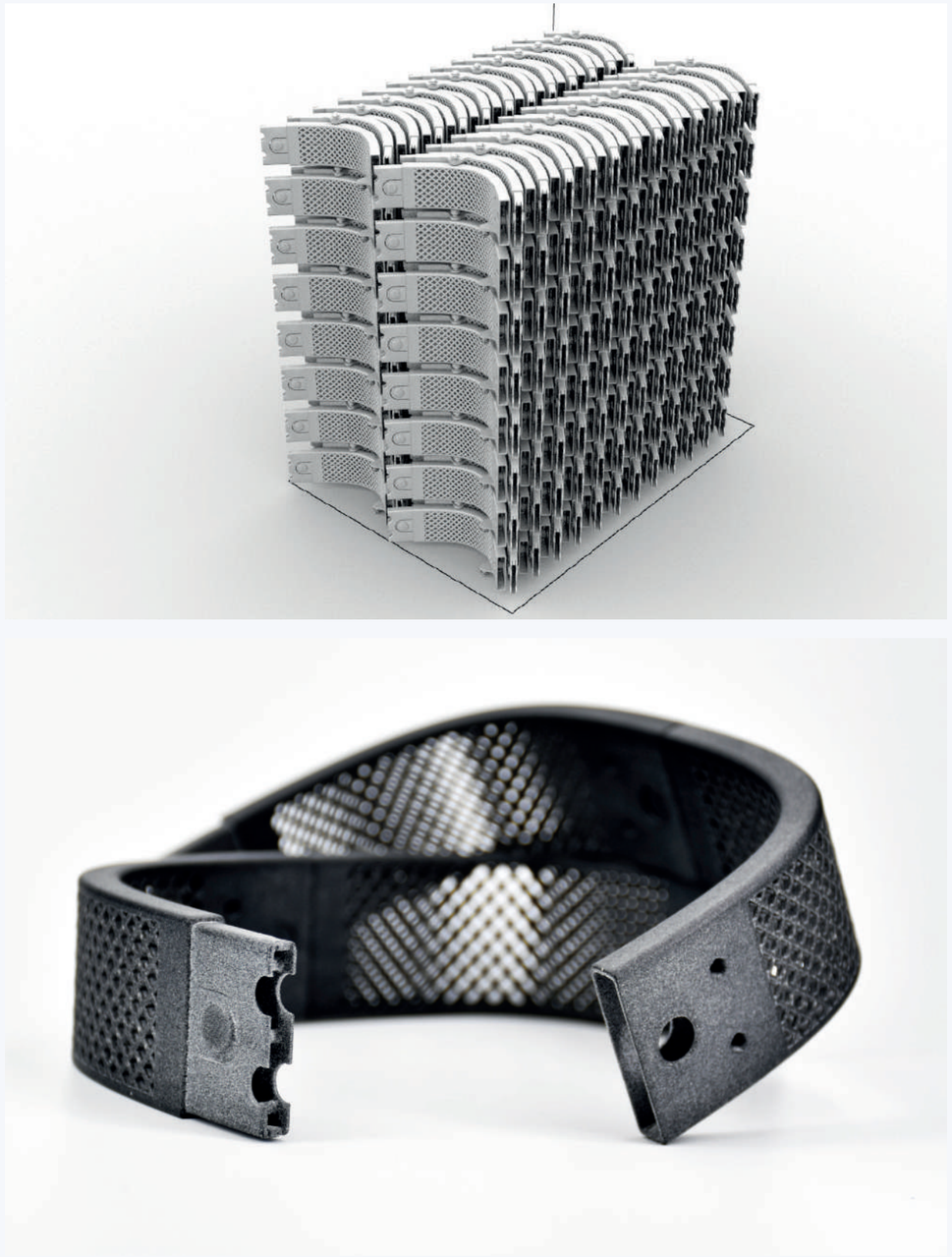
sculpteo
A brand of BASF - We create chemistry

What could you gain by adopting additive manufacturing?

THE POTENTIAL OF ADDITIVE MANUFACTURING

Are you thinking of using additive manufacturing for your projects? Additive manufacturing, commonly known as 3D printing, goes well beyond prototyping and meets the most demanding industrial constraints. By integrating the possibilities offered by additive manufacturing from the first design phase, you can produce industrial quality objects on-demand or in series. Design freedom allows you to explore complex and innovative systems and optimize your parts and assemblies. And because it makes the most complex geometries possible, **additive manufacturing applications are limitless.**





Design-driven manufactuing

THE ADDITIVE ADVANTAGE

Additive manufacturing breaks free of traditional manufacturing constraints which limit the design potential. Without tooling and molds, design can take any form and be produced at scale.

The absence of tools allows **exceptionally rapid development** of your parts and **production on demand**, for one piece or thousands. Additive Manufacturing also enables **mass customization**, the possibility of iterating and improving your design, or creating a wide variety of models at the same time. These benefits give you agility and flexibility in the development of your products.

Design freedom allows you to produce complex and unique geometries in one piece. It enables you to develop more efficient, optimized, or lighter parts by integrating lattices or internal networks, assembly solutions, or even flexible mechanisms.



A TEAM OF INDUSTRIAL DESIGNERS AND SPECIALIZED ENGINEERS

Our specialized team works with you, whatever your level of knowledge in additive manufacturing, to maximize the 3D printing benefits on your project.

Sculpteo Studio can not only optimize your 3D files, it can intervene at any stage of your project to **help you identify the optimization potential of your part and its design.**

With 10 years of experience, Sculpteo Studio is specially trained in the different materials, processes, and finishes, as well as the mechanical properties and implementation constraints. Their mastery of dedicated digital modeling tools such as lattice generation, simulation, or parametric design is an essential skill to exploit their full potential.

Why do you need an additive manufacturing design service?

UNIFIED MANAGEMENT BETWEEN DESIGN AND PRODUCTION

The Studio works in the heart of the manufacturing plant, in close collaboration with the production teams. This proximity results in a high reactivity of production. The Studio coordinates, the entire production cycle of your products to ensure continuity between prototyping and mass production. They anticipate the challenges that production - whether in limited or mass series - may encounter (nesting and orientation of parts, post-process constraints, and others).

As you have seen, Sculpteo Studio empowers you to make the most of the strengths of additive manufacturing and guarantees you freedom in design, flexibility in production, and responsiveness throughout your project.

FREEDOM

Let your imagination run wild, Sculpteo Studio helps you harness the tremendous potential of additive manufacturing.

REACTIVITY

Benefit from a **responsive partner** who adapts to your needs and offers you tailor-made solutions.

FLEXIBILITY

Give yourself the luxury to **be flexible**! Your parts are valid for one as well as for several thousand copies. Thanks to the absence of tools, iterate your project over time or do mass customization.

DISCOVER THE DIFFERENT SERVICES OFFERED BY SCULPTEO STUDIO

1. Lightweight structures and optimized parts



2. Innovative systems and mechanisms



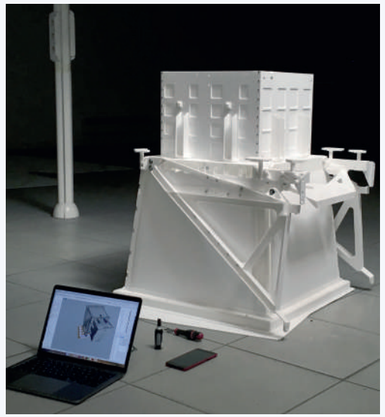
3. Finished products



4. Electronic enclosures and supports



5. Unique models



6. Spare parts and repair



7. Custom tools and jigs



8. Training and support





1



LIGHTWEIGHT PARTS AND INTERNAL STRUCTURES

Additive manufacturing, because it works by putting material only where it is needed, allows the development of lightweight parts and structures. The use of lattices and digital tools such as topological optimization can produce reliable and light elements. Sculpteo Studio's experience in different industries enables it to identify optimization solutions in many contexts. Its knowledge of the mechanical properties of materials and constant contact with production plants allows very rapid production of optimized parts.



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1. Internal structure for leather goods
2. TPU shoe sole
3. Lightweight support

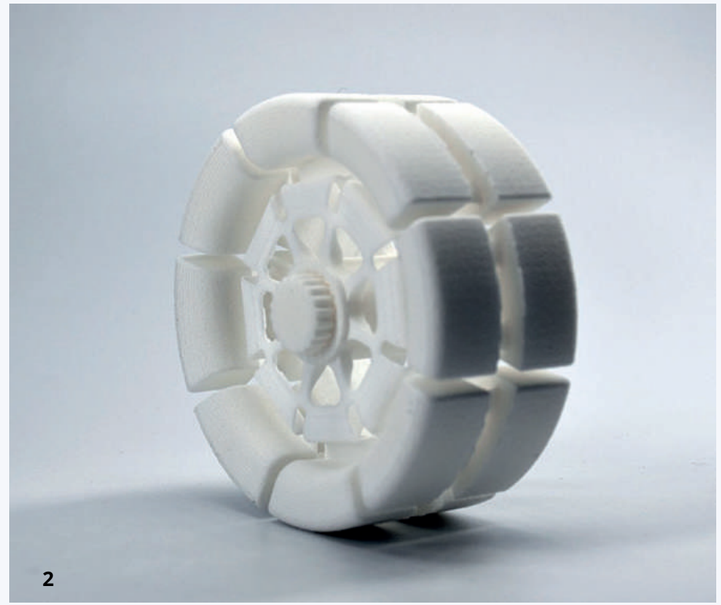


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INNOVATIVE SYSTEMS

It is possible to produce complex structures and shapes with additive manufacturing. As a result, the number of individual components and connecting elements can be significantly reduced. This potential for simplification gives life to robust parts and allows for innovative systems that meet the most demanding industrial standards. The manufacturing of this type of part requires good knowledge of the design constraints inherent in each material and technology. Here is why you need Sculpteo: to help you develop your innovative systems by designing, simulating, and testing its solutions.

1. Flexible pneumatic gripper in flexible TPU with smoothing finish
2. One-piece centrifugal clutch system with a flexible mechanism
3. Multi-way connector with pass-through wall system, SLA resin



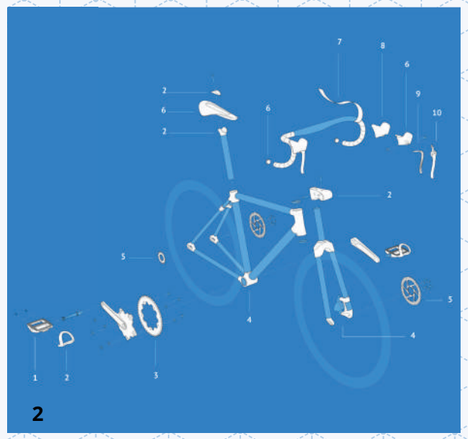
2



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5

FINISHED PRODUCTS

Additive manufacturing has evolved so much, whether in terms of technologies, materials, or finishing options, that its use for finished products has become widespread. With 3D printing, produce aesthetically pleasing products with excellent customization potential in record time. 3D printed finished products begin with choosing the right combination of technology, materials, and finishes. Throughout the many finished product projects carried out by Sculpteo Studio, the team has always offered solutions that meet the unique characteristics of the products to bring it to life in a matter of weeks.

1. Sculpteo Bike. 2017
2. Sculpteo Bike. Detail of printed parts
3. TPU shin guard with absorbent lattice
4. Polypropylene tank
5. DMLS Titanium Brake Lever



1

ELECTRONIC HOUSINGS AND SUPPORTS

3D printing offers the possibility of designing all-in-one electronic cases with a high level of functional integration. Sculpteo Studio accompanies you to conceive the boxes adapted to your needs. The Studio's experience in designing and manufacturing casings and connectors enables them to offer you ingenious solutions such as fixing solutions (clips, wedges, pressers, suspensions), wiring management, light, or sound transmission.

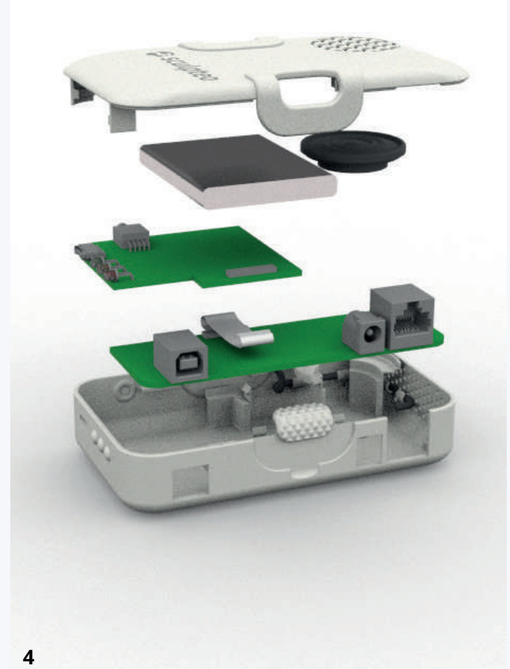
Additive manufacturing works perfectly in these very constrained spaces that are electronic boxes and allows the integration of many innovative solutions. Also, the flexibility of this mode of production makes it possible to iterate quickly to arrive at complex parts and deal with any component changes or customizations.



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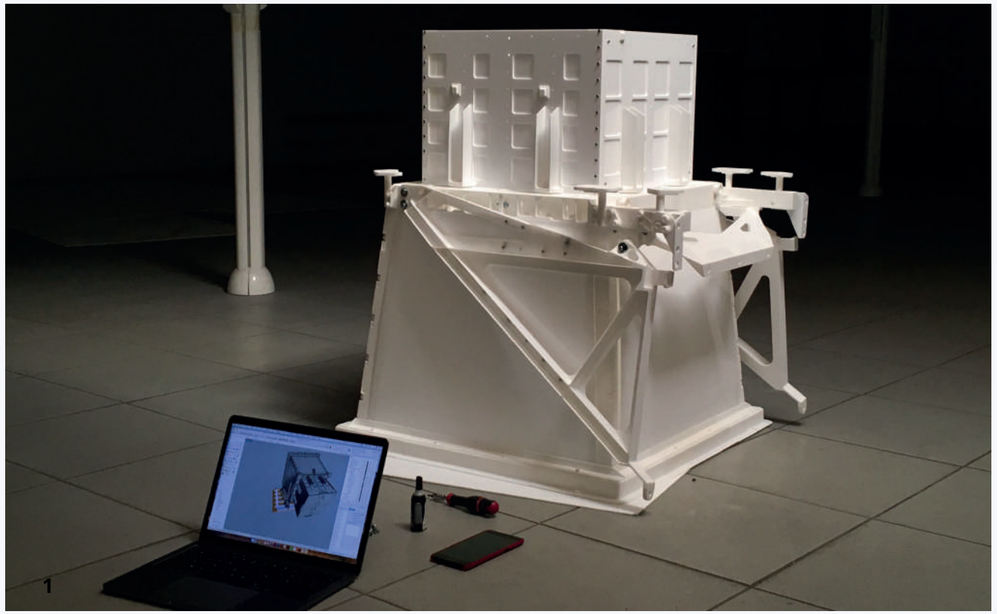


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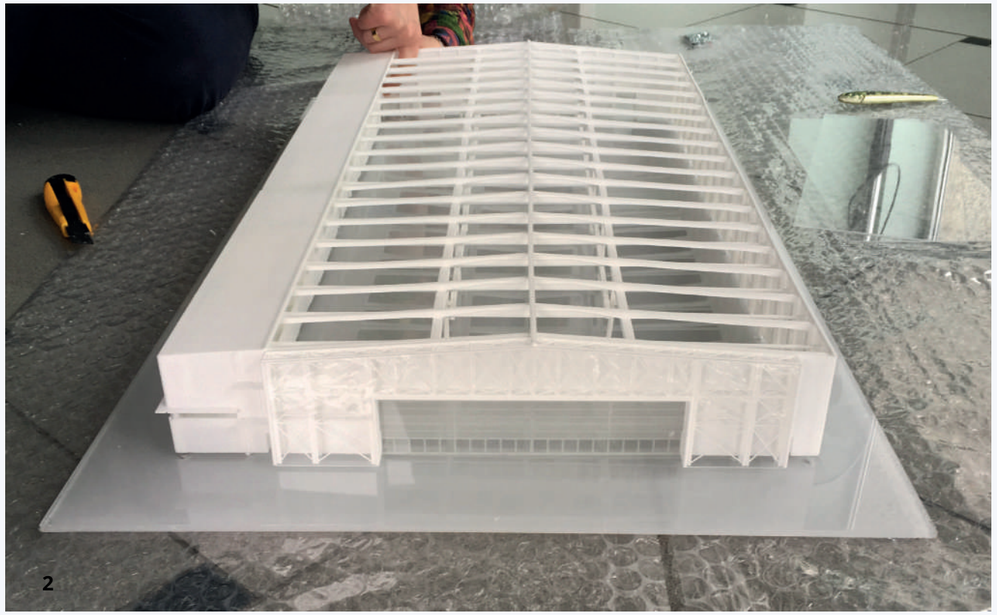
1. Custom connector in Nylon PA12
2. Custom connector, Integration diagram
3. Customized monitoring box
4. Customized monitoring box. exploded view of components

UNIQUE MODELS

With its absence of tools, 3D printing can quickly turn your ideas into unique pieces and a variety of shapes that other technologies cannot. This advantage takes on its full significance for the instant production of models, artwork, intricate shapes, and prototypes. Sculpteo Studio's strong expertise in designing unique models and its ability to handle complex geometries have contributed to the success of many of its clients' projects. Unique model projects often have their specific production challenges. Therefore, they require personalized support in the search for solutions that best enhance your model's properties



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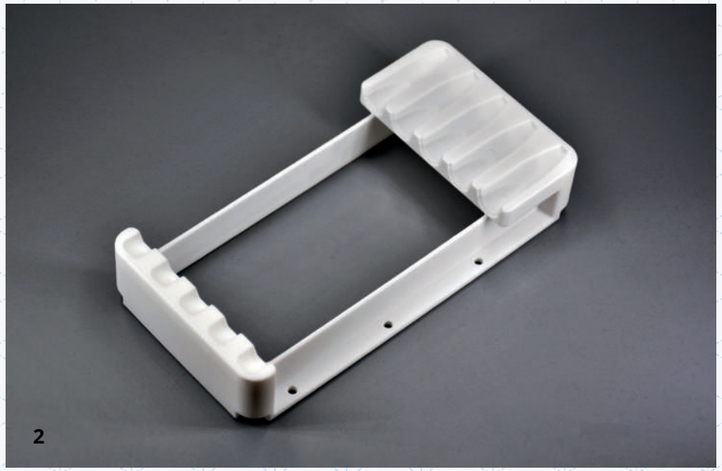
1. Scale 1 model of the ECLAIRs telescope, for the SVOM mission satellite. National Center for Space Studies (CNES)
2. Industrial site mockup. Dassault Aviation

SPARE PARTS

Responsiveness, design freedom, and on-demand manufacturing are useful assets in producing spare parts. The variety of materials available makes it possible to replace numerous parts and meet multiple needs. The lack of replacement parts can be related to a supply problem or continuous improvement. On-demand manufacturing enables inventory dematerialization, bringing flexibility and reactivity to your supply chains.



1



2

1. Polypropylene pipe fitting
2. Support for engraving pens
3. Flexible TPU pneumatic gripper

CUSTOM TOOLS AND JIGS

Production lines can significantly benefit from the modularity and flexibility offered by additive manufacturing. Design personalized tools in record time, by iterating, adapting, and producing different models concurrently. We help you design the right jigs, supports, tools, counter block, and innovative tooling systems.



3



"3D Printing and Supply chain" workshop for Procter & Gamble. Lausanne, 2019

TRAINING AND SUPPORT

Sculpteo Studio also offers a training service to companies looking to introduce 3D printing to their teams. The Studio can intervene to make your employees aware of the potential of 3D in your industry. Training sessions on handling the possibilities offered by 3D modeling software can be organized too. Sculpteo Studio is the ideal partner if you want to train yourself in 3D printing or simply promote this discipline in your business.

THEY TRUST US

Sculpteo Studio has collaborated with many companies in various sectors. The studio team knows how to adapt 3D printing to any industry, from luxury goods to automotive, aerospace, or healthcare. This considerable experience and positive feedback from our customers are guarantees of quality.



SCULPTEO STUDIO:

A UNIQUE EXPERTISE

Sculpteo Studio supports you at every stage of your 3D printing project, from prototyping to production engineering. Are you curious about how 3D printing can fit into your production process? Book a free consultation with the Sculpteo Studio team.



Alexandre d'Orsetti

Director, Sculpteo Studio

Book a Meeting with Alexandre

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