

# GRYP 3D GROWING 3D-PRINTED VINTAGE CAR REPLACEMENT PARTS COMPANY ON 3DEXPERIENCE PLATFORM

Case Study

Vintage car part manufacturer GRYP relies on the **3DEXPERIENCE** platform to produce 3D-printed vintage automobile parts, like the one shown here, from any CAD design file format or from a quick remodeling of the parts to be printed.

### Challenge:

Efficiently and cost-effectively produce 3D-printed vintage car replacement parts from damaged or worn out parts and also from a variety of part design file formats.

### Solution:

Implement the cloud-based **3DEXPERIENCE** platform, including the 3D Creator, Collaborative Business Innovator, and Collaborative Industry Innovator roles.

### Results:

- Reduced design cycles by 15 to 20 percent
- Cut part delivery times in half
- Saved 20,000 euros annually on software and hardware costs
- Continued working despite COVID-19 pandemic

Co-founded in 2018 by Industrial Designer Gauthier Laviron and Salesman Bastien Vanlathem—both vintage car enthusiasts—GRYP 3D produces vintage car parts via 3D printing, either from native CAD design files or 3D scans of damaged or worn out parts. Having experienced difficulty finding replacement parts for their 1966 Renault 4 and 1974 Volkswagen Golf 1 models—or encountering very expensive replacement parts—the partners founded GRYP to take advantage of a niche in the vintage car market: affordable replacement parts produced on demand via 3D printing.

From its humble beginnings, first in Laviron's apartment and then his parents' garage, GRYP has continually grown over the past three years and now occupies 150 square meters of space near the airport in Bordeaux, France. The company has added 3D printing machines, equipment, and employees to support its growth. However, according to Laviron, GRYP's initial use of open-source and low-cost design software became an issue after two years because of the various CAD file formats that the company needed to be able to handle in order to print parts.

"We ran into issues with the file formats of our clients, who often don't have experience with 3D printing," Laviron explains. "We can tell them, 'Save it as an STL file,' but there are often still problems with the file. If the file is not set up correctly, it's like a photo that you save with the wrong resolution. It can negatively impact manufacturing. We tell our customers to send us the native CAD file format, but then we need to be able to open it and manipulate it. Using various open-source solutions or low-cost software with short-term or easily cancellable licenses, as we did in the beginning, was no longer an option because of the retraining required among our new employees. We needed a single solution that everyone knew how to use, which led us to the **3DEXPERIENCE**® platform."

GRYP learned of the **3DEXPERIENCE** platform from SOLIDWORKS® reseller AvenAo, and quickly realized that the platform was more suited to its needs as a small, growing

business. "We were initially interested in the compatibility of the platform with all of the leading CAD file formats, but once we looked deeper into the solutions, we realized that the platform would also help us formalize our workflows," Laviron says. "Then, the COVID-19 pandemic hit, and the platform became critical to continuing to work on parts remotely during lockdowns."

GRYP chose to standardize on the **3DEXPERIENCE** platform—implementing the 3D Creator, Collaborative Business Innovator, and Collaborative Industry Innovator roles (each including multiple apps)—for designing and 3D printing vintage car parts. The solution can read in all major CAD file formats, saves the company money on computing hardware and design software, helps the company formalize its workflows, and allows GRYP employees to continue working remotely despite the COVID-19 pandemic.

"The **3DEXPERIENCE** platform is perfect for us because we can open every CAD format that we receive, which is a huge advantage and time-saver for us, at much less cost than traditional CAD software," Laviron notes. "But the real big advantage is that everyone can see what everyone else is doing and can work in parallel and prioritize design steps to boost productivity."



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— Gauthier Laviron, Co-Founder

### REDUCED DESIGN CYCLES AND DELIVERY TIMES

Since moving to the **3DEXPERIENCE** platform at the beginning of 2021, GRYP has cut design cycles for parts requiring modification or modeling by 15 to 20 percent and cut its delivery times in half—down from a month to just two weeks. "When a job comes in as a CAD file, we take it into 3D Creator if changes need to be made to the model for production," Laviron points out. "If the model doesn't need to be changed, we can simply view it with the 3D Play role."

"Everything is now in the cloud, which means that we don't have to look for a USB stick to find a file or look on someone else's computer, or have meetings to check on the status of a part," Laviron adds. "The time savings and faster delivery times that we've realized with the **3DEXPERIENCE** platform stem primarily from not having to have status meetings or

look for files because everything that we need to know is in the cloud, which allows us to become more productive.”

## FORMALIZED WORKFLOWS SAVE PRODUCTION MANAGEMENT TIME

Another aspect of the **3DEXPERIENCE** platform that has helped GRYP become more efficient is the transparent data management that takes place on the platform and the customizable dashboards that enabled GRYP to formalize its workflows. Laviron says these data management and workflow capabilities save a substantial amount of production management time, freeing up him and his partner to pursue new business.

“Using the Bookmark Editor app, we set up one folder per person with the following subfolders underneath: In Progress, To Produce Test, To Produce Finished, and Completed,” Laviron explains. “I can go into any of these folders and check the progress of a job and move it to the next stage without having to ask anyone anything. This is a major advantage of the **3DEXPERIENCE** platform. For example, let’s say I have a student intern who completes a design, but is not in the office but at school when I go to his or her To Produce Test folder. I can move the job to the next folder without approaching the intern at all and ultimately deliver the part to the customer more quickly.”

## AN AFFORDABLE GROWTH SOLUTION FOR STARTUPS

Even though GRYP is using only a few roles on the **3DEXPERIENCE** platform at this point, the startup values the breadth and depth of the platform’s solutions, frequent updates, and affordable licensing arrangement—through which GRYP can purchase and access solutions just when they’re needed—for supporting its future growth plans. Although the company is focused primarily on car replacement parts, it plans to expand into production parts for small automobile and aviation customers.

“With the **3DEXPERIENCE** platform, we are saving 20,000 euros each year on hardware and software costs because the solution runs on the web and we don’t need expensive workstations to run it,” Laviron stresses. “Most importantly, from a functionality, customer relationship, and growth standpoint, the **3DEXPERIENCE** platform is a huge plus. Although we only have a few of the tools now, we can see everything that is possible

### Focus on GRYP 3D

VAR: AvenAo by Prodways, Montigny-le-Bretonneux, France

Headquarters: Bordeaux, France

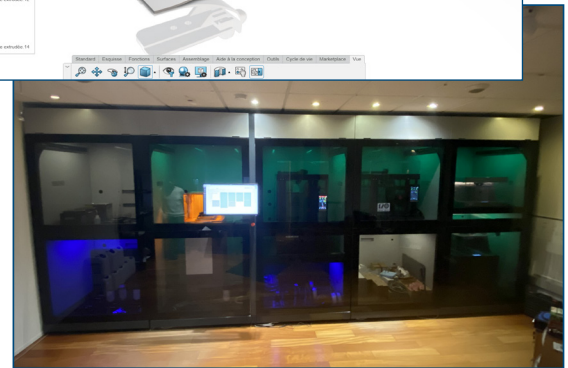
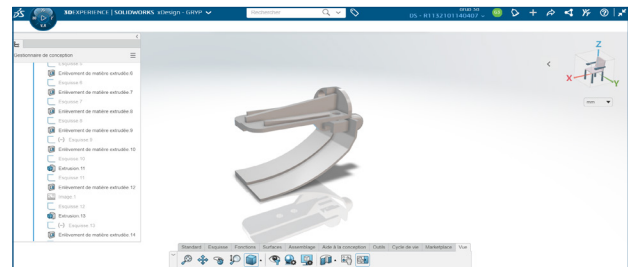
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### For more information

[www.gryp-3d.com/fr/](http://www.gryp-3d.com/fr/)

[www.gryp-innov.com](http://www.gryp-innov.com)

and will be added over time. Depending on how our company grows, we can tap platform solutions and only add roles as we need them, which is a practical, cost-effective approach for maintaining and supporting growth.”



By implementing the **3DEXPERIENCE** platform, GRYP has formalized its workflows, resulting in a 15 to 20 percent reduction in design cycles and cutting delivery times for 3D-printed parts in half.

## Our **3DEXPERIENCE**® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3DEXPERIENCE** Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating ‘virtual experience twins’ of the real world with our **3DEXPERIENCE** platform and applications, our customers push the boundaries of innovation, learning and production.

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