

SHAPEWAYS

Case Study: 67 Designs

3D Printed Device Mounts: Elegant,
Efficient & Rugged Enough for
Years of Off-Roading



3D printing is an intuitive choice for Gavin Stener of **67 Designs**, a company known for sturdy mounting designs that hold devices like the iPad whether a user is driving an off-road vehicle (and often, filming) or sitting at their desk dreaming of such adventures. And while he may be a champion of 3D printing on several levels—including the benefits such technology offers to the nation’s economy as small businesses can offer manufacturing jobs to local citizens—it is clearly also a process that complements the CEO’s background in design and industrial engineering.

The idea for a high-quality iPad mounting device sprung from continued observation that previous solutions were unwieldy, impractical for real use, and aesthetically unappealing. The 67 Designs goal was to launch a high-end brand that would stand the test of time rather than falling apart like so many cheaply made options. As devices like the iPad change, the latest mounting designs must too; in fact, the new MagMount G3 also features a magnet array, allowing even better functionality on the trail due to more



Credit: 67 Designs

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comprehensive compatibility with the iPad.

Embracing not only the benefits of being able to prototype in-house and enjoy the independence of designing, testing, and making changes quickly—in continuing to work with Shapeways, the 67 Designs team has been able to expand into industrial-grade manufacturing via selective laser sintering (SLS). While 67 Designs began in 2012 with a focus on futuristic design and technology, the company’s innovative founder had a clear view on the benefits of additive over subtractive methods.

The 67 Designs dedication to industrial 3D printing remains strong, even as the volumes of sales and demand for products has grown beyond the traditional point where injection molding could be more affordable. In the

end, Stener is more concerned with the ability to create and manufacture accurate, quality designs in a more dynamic on-demand way. His vision is in line with a growing trend to embrace Advanced Manufacturing (AM) processes even as volumes rise to a substantial level where traditionally, manufacturers might feel like they have to turn to more conventional manufacturing.

“I really believe in the advantages and the future of 3D printing,” says Stener. “And wherever possible we will try to use 3D printing in a production environment.

The most recent collaboration with Shapeways features a third-generation product—and while the two companies have worked on previous generations, 67 Designs culture is to constantly innovate and never be afraid to switch it up

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in terms of materials for a superior outcome. The company has used 3D printed metal, aluminum alloy, and experimented with other materials too before favoring Nylon 12 [Versatile Plastic] for proven durability.

Products like the 3D printed MagMount G3 are meant to be just as rugged and durable as the off-road vehicles they inhabit, not to mention a variety of four-wheelers, eighteen-wheelers, boats, and planes; however, Stener is drawn to the remarkable ability SLS 3D printing offers in allowing for the manufacturing of high-end designs that are not only efficient, but elegant.

“I’m really thrilled—and also that Shapeways is the vendor of these components,” says Stener.

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While SLS allows users to enjoy all the classic benefits of 3D printing, there is another unique advantage: support structures are not necessary. As unsintered powder gathers around parts being printed, they are bolstered, and supported by the surrounding material. This means that users can enjoy designing more intricate, freeform geometries. Stener also sees the potential for the production of a ‘far greener product,’ due to the smaller footprint on the environment when relying on AM processes historically responsible for low batch production.

In opening 67 Designs, Stener knew he wanted to get back into the familiar engineering aspect of business; however, he was also passionate about fulfilling another goal: making a difference as an active member in the community—



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both on a business level in creating jobs—and on a personal level in offering them to local workers who might be out of work and have mid-level experience, to none at all.

“Ultimately, as material prices continue to fall we will be able to produce even more with AM,” says Stener. “I think the potential is still wide open and we’ve been proving it for almost five years, deploying Shapeways products into the field when people said we couldn’t—but yet we’ve been deploying them into well-designed, highly functional products that have been holding iPads, GoPro action cameras and more devices for almost five years.”

With the ability to manufacture on-site or with a service like Shapeways, Stener goes on to explain that without the rush to have products made in other

countries, the true opportunities made available with 3D printing are fully demonstrated both for the strengthening of the economy and the benefit of American workers looking for jobs. There is also a focus at 67 Designs to see the younger generations become interested in learning how to make products—and eventually use their skillsets in the job force.

“When you produce local, as we can with Shapeways, we’re providing good American jobs,” says Stener. “We’re really proud—it’s all printed and assembled into our products here.”

Further impressive is the fact that a good number of 67 Designs iPad mounts are installed in rental off-roading vehicles, and in the past five years not one has broken. And while such a stellar track record in quality is a testament to Stener’s

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excellence in design and product development—as well as the efficacy of industrial 3D printing—he remains in an obvious state of awe over the adventures people are having off-roading and using 67 Designs innovative products.

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About Shapeways

Shapeways makes world-class 3D printing more accessible to everyone through automation, innovation and digitization. Our purpose-built software, wide selection of materials and technologies, and global supply chain lower manufacturing barriers and speed delivery of quality products. Shapeways' digital manufacturing services have empowered more than one million customers worldwide to produce more than 20 million parts using 10 different technologies and 90 different materials and finishes. Headquartered in New York City, Shapeways has ISO 9001-compliant manufacturing facilities in Long Island City, N.Y., and Eindhoven, the Netherlands. Contact us at www.shapeways.com to learn more.