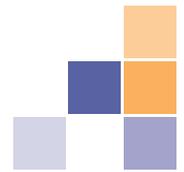


# Case Study



## Morpheus Prototypes | Xede® 3SP™, Perfactory® Micro

*"Anybody can make a part. What people needed was a higher level of customer service and troubleshooting, while helping direct them to a workable 3D printing solution."*  
 - Shawn Zindroski, Owner, Morpheus Prototypes

Who should a designer trust to bring their products, prototypes and characters to life? If you don't have a 3D printing process in-house, wouldn't you want the best the industry has to offer?

Shawn Zindroski is the owner and general manager of Morpheus Prototypes, a multi-platform service bureau located in California that provides various 3D printing services. Founded in 2003, Morpheus offers customized solutions, taking concepts and bringing them to completion. They offer a wide range of services that encompass and span printing production - Morpheus not only

Micro 3D printer was added. With the help of the large-frame Xede and the detail-oriented Perfactory Micro 3D printers, Morpheus is able to effectively respond to clients as a full-service 3D printing bureau specializing in a wide range of detailed projects in varying sizes.

Morpheus Prototypes' business model centers on the idea of 3D printing as a component of an assembly. They also offer custom finishing and the services of a complete model shop staffed by highly trained individuals with backgrounds in finishing parts and surface treatments. Morpheus blends 21st century technology



with over thirty years of model-making and industry experience. Zindroski saw the need for a shop that offers solutions for all stages of an assembly. "Anybody can make a part," he says. "What people needed was a

higher level of customer service and troubleshooting, while helping direct them to a workable 3D printing solution." In the past five years, Morpheus Prototypes has developed their unique niche position in the animation, entertainment and toy industries, performing services for the likes of Disney, Pixar, Hasbro and Mattel. "Initially when the company first started, our core offering was 3D printing, but as

offers high resolution 3D printing, but also rapid prototyping, pre-production tooling, part finishing and custom painting services. The California service bureau invested in EnvisionTEC in 2008 with the acquisition of an Xede® DLP 3D printer. In 2014, the Xede printer was updated to EnvisionTEC's new 3SP™ technology and a Perfactory®.

Car concept for 5-Axis Models

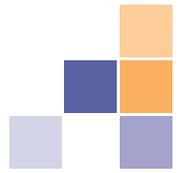
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*"We're able to create well-informed and technology-driven organization that caters to high-end content." - Shawn Zindroski, Morpheus Prototypes*

applications and technologies evolved, we utilized a lot of different other secondary processes which complement our 3D printing services." These include custom tooling, finishing and model shop capabilities.

which a client may upload their STL files online and then simply receive a part. Instead, Morpheus offers a comprehensive experience

### Mastering Service

Today Morpheus Prototypes performs commissioned work for a wide variety of companies. The bureau began with offering a solid core of manufacturing and prototyping services before adapting 3D printing and rapid prototyping as a part of the overall assemblies. The bureau is heavily involved in the manufacturing and prototyping spheres, while collectible character printing and finishing has become a strong point. When Morpheus Prototypes first started in the market, the company was focused heavily on concept vehicles for the automotive industry, which they currently still are a big part of. The car concept for 5-Axis Models (see photos on previous page) included headlights, tail lights, aspects of the interior, and even the steering wheel. This kind of project is an instance where 3SP technology has replaced stereolithography; the car used SLA parts originally and Zindroski's crew rebuilt them with the Xede. "It's starting to transition more over to the EnvisionTEC system," said Zindroski.



that takes into account the client's intention for the end-use of their parts. Taking the client's vision into consideration, Morpheus Prototypes is able to realize detailed and specific concepts for their clients:

"People need solutions that involve more than simply producing a part from a CAD file. Customers need a higher level of service when seeking a workable 3D print solution. Our clients have end uses for a part that we understand and that they look to us to help complete."

Morpheus Prototypes differs from other service bureaus through

This effort on Morpheus's part to understand and ultimately,

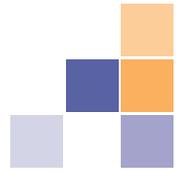
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*"The surface quality [achieved by the Xede] just saves so much time on the finishing side."*

deliver, has led the studio to recognition for their specialty in high-end content for the movie, toy and entertainment industries. Experience along with the progression of technology ameliorated the goals for Morpheus to specialize and expand on its offerings for these industries. Zindroski credits his

designers and other artists. Without the artist's vision, the work would cease to be. As such, small details, texture and surface finish are of high importance to Zindroski and his customers. The platform's adaptability especially lends itself to the sculptural detail often found in the art industry and was a big part of the decision to invest in



Xede printer for the studio's ability to deliver results quickly and expertly, according to the needs of customers who were reproducing top-tier content. "This technology has helped leapfrog us into what we're offering today as a solution," said Zindroski. "When we initially saw [it], we realized the benefit of being able to create something on the screen and physically and tangibly be able to create it." The 3SP Family of 3D printers offer surface quality that requires very little to no finishing, even in the instances of complicated geometries.

Zindroski also finds the Xede's versatility a major boon to his purposes servicing character

EnvisionTEC's technology to begin with: "We have the capability of balancing our capabilities to get a very high resolution print and expanding our capabilities to get a large area build volume – a lot of technologies that were available don't have such versatility and the EnvisionTEC system (did)," Zindroski said.

## Idol Workshop

*"Extremely high resolution."*

Adam Ross, owner of Idol Workshop, is a longtime client of Morpheus Prototypes. He uses the RP service bureau to bring many of his digital designs to life.

Many arts and entertainment

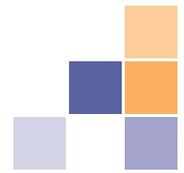
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# Case Study

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*"When I began sending my parts to [Morpheus], I started to notice how much cleaner my parts came off the build platforms." - Adam Ross, Owner and Artist at Idol Workshop*

pieces that go to print are designed in fine-detail programs like Maya or ZBrush. It's imperative to the client and the designer that these details are visible in the final product. "There is a very high expectation that the amount of detail that they see on screen is going to carry over into the 3D print," says Ross. This necessity is what led Ross to Morpheus Prototypes for his production needs.

with Morpheus is the teamwork involved in bringing pieces to life: Ross works on giving the character as much of the look and feel of the original inspiration as possible, then the studio translates the digital design process into 3D completion.

For Idol Workshops, Morpheus is one of many service bureaus who handle similar projects, but Morpheus is differentiated from its competition. The delineation is that Zindroski's



business model not only focuses on recreating a designer's vision with a consideration for that concept's ultimate function but also that the studio delivers such exceptional results. Ross uses Morpheus's services because of the quality

Ross says that Morpheus excels at removing supports from downward facing surfaces without altering the design. "When I began sending my parts to [Morpheus Prototypes], I started to notice how much cleaner my parts came off the build platforms," he said. Ultimately what Ross enjoys about working

of their reproductions. Through the studio, Ross has access to EnvisionTEC 3D printing, and can "be able to create something on the screen, be able to reproduce it with that same surface structure, and be able to reproduce it on the EnvisionTEC."

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### About Morpheus RP

Morpheus Prototypes is a multi-service rapid prototyping bureau.



### About Idol Workshops

Idol Workshops creates high-end collectibles based on popular comic and film properties.



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