

Automotive Personalization Company Uses 3D Printing to Customize Luxury Vehicles

by [Tiffany Orr](#) · July 20, 2014



Most people think owning a 3D printer is like having your own factory in a box, and it is— 3D printing is extremely useful for mass production on the fly. However, 3D printing is also useful for making one-off, one-of-a-kind items. To prove it, one need not look further than [Ai Design](#).

Ai Design is a luxury car manufacturer. Unlike other car companies that pump out designs assembly-line style, Ai takes a personalized approach. Each vehicle the company produces is completely based on customer demand. Customers come to Ai with an idea for how they want their car to look, and the company sets about designing, engineering and building that dream vehicle.

Because each vehicle Ai Design makes is bespoke, manufacturing one car can be time-consuming. “No two customer parts are the exact same. Even if we’re working on the same model, make and year, the geometries can differ,” said Todd Henderson, director of sales and marketing for Ai Design.

In the past, Ai Design made parts for its vehicles by hand or using traditional methods such as CNC manufacturing. These methods led to long lead times and were cost prohibitive in some cases. For instance, the company couldn’t use mold-injection to create parts because of the cost). However, now that 3D

Ai Design teamed up with [RedEye](#) because it saw an opportunity to decrease lead times and costs, all while creating a superior product. RedEye is a division of Stratasys, a global leader in the 3D-printing industry. The company provides rapid prototyping and digital manufacturing to companies around the world.

“We decided to work with RedEye for parts because we knew it had the expertise, flexibility and finishing services in place to produce end-use parts and hit the ground running,” said Henderson.

Using a process called Fused Deposition Modeling, Red Eye uses real, engineering-grade thermoplastics to create Ai products. These products are able to be sanded, primed and painted among other things. Some popular things RedEye has created for Ai Design includes interior components such iPad mini housing, a speaker panel and a radar pod housing.

printing is an option, things have changed.



“Ai Design is a great example of the many unique and niche applications 3D printing has to offer” said James Grimm, account manager for RedEye. “It’s been really fun to see their custom solutions come to life and enabled by the technology.”

What other industries could 3D printing help to customize, and transform? Discuss in the [3D Printing Luxury car parts forum](#) thread on 3DPB.com.



iPad Mini integrated within the dash of a vehicle thanks to custom 3D printed center dash.