

Facilitating the Acceleration of One Company's Transition into a National Automotive Brand

Case Study



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Industry • Automotive

A Productive 15 Year Relationship

Anhui Jianghuai Automobile Co., Ltd (JAC) brought 3D printing technology to their manufacturing center in early 2002. UnionTech's stereolithography (SL) technology has played an important part in the mobilization and transition of JAC from a single truck manufacturer to a fully integrated auto manufacturer.

Mr. Hu Peng, technical manager of the JAC technical center, has utilized UnionTech's industrial 3D printer for more than 15 years. In this time, he has enjoyed an "ally" style relationship with UnionTech to advance the capability of the prototyping department.

The UnionTech Advantage

"UnionTech was among the pioneers of the 3D printing industry in China and is devoted to research & development. The machines produced by UnionTech are cost effective with high operational stability and precision. This machine can ensure high utility and robust operation for many years, especially when combined with Magics RP data processing software from Materialise (Belgium) and the innovative materials from DSM Somos.", states Mr Hu Peng. "The automatically controlled processing parameters, laser power on-line detection and real time adjustment of scanning speed enables the machine to print very high quality prototypes."

Form and Function

The advantages of 3D Printing technology for automotive manufacturers lies in the fact that it overcomes product design limitations, shortens product development lead time, and reduces research costs with synchronized development to enhance the reliability of new products.

Stereolithography enables both design and functional verification across a range of interior accessories, air compressor, wheel design, aerodynamic models, cylinder block and various housings. Product developers optimize structural design, enhance robustness and manufacturability, simplify part structure, and verify the structural feasibility of a part. While one of the earliest applications, the value of communication models that speed analysis and collaboration with other teams is still crucial.

Resolution and precision of the UnionTech stereolithography equipment is especially valuable in evaluating interior design components. Mr. Hu Peng cites one example regarding interior component aesthetic approvals. Highly detailed prints of interior controls and switches that allow ergonomic evaluation replace 2 dimension renderings of the past. The same technology has recently been utilized to model most of the exterior components of a new electric car prototype.



For nearly 20 years, UnionTech stereolithography (SL) 3D printing equipment has been developed and manufactured in an environment of intense regional competition. The UnionTech product offering for the international market of today reflects the experience that has made it a global leader in stereolithography. Our equipment is robustly constructed for low cost of ownership from the initial purchase onward while producing the highest quality parts. Parts produced on UnionTech SL equipment are highly accurate with excellent feature resolution, full density and smooth surfaces. A philosophy of open design relative to material usage demonstrates UnionTech's desire to provide customers with the best available product solutions. Explore the fresh dimension in SL 3D printing that UnionTech makes available in a full line of commercial and production scale machines. UnionTech Create your Imagination.

UnionTech

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