

Making Traditional Culture and Creativity Tangible

Case Study



UnionTech

Create your imagination

Making Traditional Culture and Creativity Tangible

Industry • Arts

Xi'an Chizi Digital Technology is a full service digital production agency serving the cultural and creative communities in Xi'an. They specialize in using 3D data digitalization and 3D printing to both preserve culturally significant art works from the past as well as provide an outlet for the creativity of modern day sculptors.

Reproductions using the traditional clay model sculpting process can be limited by possible deformation, gypsum bubble formation, errors introduced by re-working touch-ups and collapses and cracking during the baking process. Stereolithography (SL) printers allow scanned and digitalized traditional clay sculptures as well as original digitally created artwork to be converted to accurate multi-sized physical 3D models. The software associated with the SL printer can reproduce a high degree of detail and high resolution. Further, the digital object can be manipulated as if it were a physical substance with tools to amend, smooth, add textures or further modifications. This eliminates the need for tedious and time-consuming refinement.

3D printing is the preferred method of converting the 3D data to an actual part in the art processing area, as compared to the alternate subtractive method of CNC machining. Because 3D printing forms an object layer by layer, it is not constrained to cutter paths and can realize complex shapes as well as internal features. The resolution, accuracy and surface aesthetics of stereolithography allows the artist to exploit a full range of design freedom.

Because the size and detail of the final artwork are very critical to the clients of Chizi Digital Technology, precision and accurate production of the digital data were critical considerations for the selection of 3D printing machines. Mr. Xi Xin, the companies founder, defined Z axis motion, liquid level control precision, and the stability of the recoater system as key parameters for producing accurate parts. UnionTech SL 3D printers were selected due to the ability to produce highly detailed models in sophisticated geometric shapes with excellent overall aesthetics. Also, compared to desktop printers, UnionTech SL machines produce models in a wide range of sizes with shortened printing lead time. These operational benefits enabled Mr. Xi Xin to achieve the concept of data consolidation into his company. His clients in the creative arts industry require high data security. The capability of including production into its data management system enables Chizi Digital Production to provide a comprehensive service platform.

The ideals of Chizi Digital Technology according to Mr. Xi Xin lie in the ability to translate an artist's creativity into something tangible and physical, including static pieces, animation characters or movie props. With UnionTech SL 3D printers and the power of digital software, the artist in everyone can express their creativity. This expands the utility of 3D printing well beyond industrial manufacturing.



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

Shanghai Union Technology Corporation
Room 102, Unit 40, 258 Xinzhuan Rd, Shanghai, 201612, China
enquiry@uniontech3d.cn
www.uniontech3d.com

Union Tech, Inc.
100 Illinois St., Suite 200, St. Charles, Illinois, 60177, USA
info@uniontech3d.com

UnionTech GmbH
Friedrich-Ebert-Anlage 36, 60325 Frankfurt am Main, Hessen, Germany
info@uniontech3d.com