

3-D Proves to be A Prolific View

By Rachel Abbey McCafferty

The Technology House got its start nearly 20 years ago by embracing a then-new process: rapid prototyping or, as it's more commonly known now, 3-D printing.

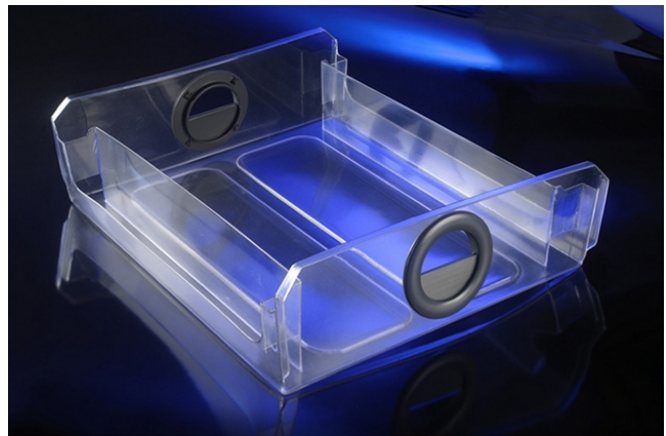
CEO Chip Gear said the company he was with previously was an early adopter of the technology and found it really cut down on the time it took to get an idea from inception to production. He decided to buy an SLA (stereolithography apparatus) machine and start a company in Solon.

Fast-forward 19 years and that investment is paying off. The Technology House expanded to a second building this summer, more than doubling its footprint, and it's looking to enter the retail market with 3-D printed wall hangings and holiday ornaments.

While The Technology House got its start making 3-D printed prototypes using SLA machines, it quickly expanded to include injection molding, rubber silicone molds and cast urethane.

The company still uses the SLA machines, as well as the more modern fused deposition modeling-style printing machines. It's just a matter of having "different tools in the tool box," said Mark Horner, the company's vice president of business development.

Today, the company can make prototypes, small amounts of products or full-fledged production runs, said Greg Cebular, vice president of sales and project management. And the materials used range from plastic to aluminum to stainless steel. The company serves a diverse range of industries, but has seen a lot of growth by working with the medical and aerospace industries, Cebular said. It looks for customers it can create a relationship with, discussing options and offering advice. He said they want to have a "division of their company" approach.



The Technology House — and its production side, which is called Sea Air Space Machining and Molding LLC — is still moving into its building at 10036 Aurora-Hudson Road in Streetsboro.

The Technology House is owned by Gear and his wife, while Sea Air Space is primarily owned by Gear's wife and three daughters. (He holds a minority share.)

Gear declined to say how much the 50,000-square-foot building in Streetsboro cost. The original plan was to completely move the company from its 35,000-square-foot plant at 30555 Solon Industrial Parkway in Solon, but a few customers requested Gear change his approach and keep both.

They wanted him to be able to ramp up production, Gear said, as a lot of the company's competitors were bought by corporations last year.

So now, the Solon location will be home to the company's machining division, while the Streetsboro plant will offer all of its other services, including the injection molding and 3-D printing.

The company closed on the Streetsboro building in December and started moving in June, Gear said.

The Technology House doesn't publicly share its sales figures, but it has seen growth in employment in recent years. About two years ago, it employed 48 people.

Today, it's up to 82, and Gear expects that to expand to 120 within two years. And the company has continued to expand its offerings.

It's starting to enter the retail market by creating elaborate ornaments for holiday trees and 3-D reliefs of famous artworks (at least, those in the public domain) for wallhangings.

The company last week began selling the items online. Cebular said it plans to sell on sites like Overstock.com, Etsy and Amazon.

The company also intends to invest in 3-D metal printing in the future, possibly in 2016, Horner said. It's a growing part of the industry, but there's a high cost of entry and a steep learning curve.

Despite its diversification over the years, Gear said he thinks the company's future growth will be in additive manufacturing.

There is equipment not yet on the market that can make parts in minutes, instead of hours, he said.

"There really is a revolution coming in the way things are made," Gear said.

Cincinnati-area consultant Todd Grimm isn't quite so positive, but he said he thinks growth of 20% to 40% is likely. Grimm, president of T.A. Grimm and Associates Inc. in Kentucky, has worked in the industry since the early 1990s. He doesn't think the industry will entirely disrupt the way manufacturing is done, or necessarily make it faster or cheaper, but it does offer a different way to design and make products.

Craig McAtee, director of Cuyahoga Community College's 3-D digital design and manufacturing technology program, said future growth for the additive manufacturing industry is "exponential." While the industry has been around for decades, it has taken off in recent years.

About three years ago, Tri-C received a federal grant to create a one-year certificate program for the additive manufacturing industry, and credit courses started in January of this year. In that time, the school has engaged more than 50 employers in the process, including Technology House, McAtee said.