

Panaton Software: Finding Success through Customers



2015 CES Best (Connected)
Home Product
Energous WattUP

What do Dartmouth College, Solarbridge, Safari Online Books and Pacific Gas and Electric have in common? An outsourced software development company in Boise, Idaho, that works behind the scenes to ensure their unique projects are delivered to the highest level of performance. That can lead to exciting results, like the two CES awards received in 2015 by Energous, whose backbone technology was developed by Panaton Software.

Background

Dejan Nenov could be described as restless, particularly when there is an interesting challenge in front of him. And it doesn't much matter whether the challenge is based in technology, business or people—he embraces it with enthusiasm and confidence that he and the talented teams he surrounds himself with will figure it out. So it wasn't a surprise that after many years of starting, leading, and selling companies in California, he took on a new challenge in 2006 of creating a software engineering and product design company in Boise, Idaho.



Panaton Software has deep strength in several areas, including cyber security, cloud-based software development and IT infrastructure projects. Their track record led a U.S. based leader in large system cyber security to choose Panaton when launching a new product in the home consumer security market.

Short-run Production

The product, which will be introduced at CES this January, is a home electronics monitoring system that protects connected devices from being taken over by malware



(think of the recent DDoS cyber-attack which affected millions of Netflix and Spotify users and originated in home connected devices). Panaton was on schedule to deliver the software and electronic boards for the new product when the customer determined that they needed to do field tests with potential buyers. They had one enclosure hand-built at a cost of \$11,000, which wouldn't work for the 100 more units they hoped to place in test.

Panaton contacted Intermountain 3D to ask about 3D printing the boxes. "Dejon brought us a fairly large and complex box," said Brian Hoffmann, president of Intermountain 3D. "We quickly determined that the 3D printing price for 100 units couldn't scale down enough to fit the budget, and so we had to find a more cost-effective solution."

The answer was urethane casting with 3D printed master patterns. The multi-step process starts with a stereolithography (SLA) printed master pattern. Silicone is then poured around the SLA master pattern to create the mold. Once the silicone is fully cured, the master pattern is removed and the mold is reassembled. Lastly, the final material is poured into the mold to create the cast urethane part. For Panaton's 100-piece project, four master patterns were printed, each producing 25 final enclosures.

Production and Assembly

To be confident in the fit and finish of the enclosures, Intermountain 3D shipped the first article for inspection to Panaton's customer across the country. Within 24 hours, there was a go-ahead to build the rest of the enclosures. Given the extremely short timeline, it was determined that the final assembly would be done by Panaton's customer at their site.

"When I first contacted Intermountain 3D, we were not only on a tight timeline for the final products, but I was leaving the country in two days for an extended trip," says Dejon. "I was not going to be available for much of that time, and needed competent hands to ensure we kept our schedule promise to the customer. Intermountain 3D stepped up in a big way and became the project manager in my absence."

The final assembly required everything from sourcing the correct fasteners to designing artwork to pad-printing a logo on the side of the box. "We scrambled to find sources for the pieces and parts nearby to the customer," remembers Brian, "and then arranged for it all to be delivered to their doorstep." The result was that a project that was started in early-June, had fully assembled products in the field by mid-July.



Next Stage: on to Manufacturing

“Using short-run production to field-test the product was critical,” says Dejon. “We could iterate on the design of both the internal boards and the external box before going to expensive tooling. I had used 3D printed prototypes in the past, but was very excited to find a local resource who had engineering competencies beyond just printing.” The product design has been finalized and the customer is set to start tooling. With a successful field test behind them and great interest from potential channel partners, Panaton is confident that the product will do well when introduced into the market. The acclaims will once again go to Panaton’s customer—and that’s just fine with Dejon.

More information about Panaton at <http://panatonsoftware.com>

