

Specdrums Gets a Drum Roll for Fast Production and Scalability Thanks to Protolabs' Cool Idea! Award

Protolabs' Cool Idea! Award aids Specdrums in meeting rapid demand during pivotal growth stage

MAPLE PLAIN, Minn. – July 31, 2018 – Driven by its incredibly successful Kickstarter campaign, Boulder, Colorado-based connected musical applications company [Specdrums](#) had a challenge on its hands. With orders in the queue, the growing company needed production help – they needed it fast, and in a manner that could scale for future growth.

The company's rapid success has been due to its game-changing innovation that brings drumming to your fingertips, literally.

Specdrums started as a simple idea – founder [Steven Dourmashkin](#) asked, “What if we could give people an easy way to drum anywhere and use color to make different drumming sounds?” He invented fingertip drum sensors (rings) that pair with a mobile device. Using the Specdrums app, a player can assign musical notes and sounds to specific colors. When the player taps the ring on the color, it plays the assigned sound.

In late summer 2017, it took Specdrums just 30 days to exceed its Kickstarter goal by 1,250 percent. After receiving an unbelievable amount of pre-orders, the company was faced with finding a manufacturing partner to deliver the silicon parts it needed to meet demand. Before shipping to customers though, it needed samples to get into the hands of product influencers and educators.

Accelerating a Cool Idea with Digital Manufacturing

Dourmashkin created his own production molds at first. But with the volume of demand, this quickly became inefficient. The next step was looking into rapid injection molding, a process that created both what Specdrums needed in the short-term as well as ability to scale as the company continued to grow.

The process wasn't without its challenges. When looking for a molding partner, some companies Dourmashkin met with found the design to be problematic. One of the parts had an overhang, which adds complexity to the design. It wasn't until Dourmashkin came across [Protolabs](#) that he knew he had found the right team.

Specdrums used Protolabs' applications engineers and design for manufacturability analysis to identify improvements to the design, improving fit and durability. It created 3D-printed samples to nail down the design before developing molds and low-volume production tools for injection molding. Being able to iterate through this process quickly was key.

“I admired Protolabs' willingness to work with my designs and improve the manufacturability. Other manufacturers were worried about the overhang and weren't willing to improve the design with me,” Dourmashkin said.

During the design process, one of Protolabs' applications engineers suggested Dourmashkin look into the Protolabs [Cool Idea! Award](#). Entering and being awarded the grant enabled Specdrums to refine the product even further, without delaying time-to-market. With the ability to do on-demand small production runs, Dourmashkin could test colors and materials to create a high-quality product, allowing the company to fulfill all the orders to their Kickstarter backers by January 2018.

An In-Demand Educational Tool

In 2018, the Specdrums team developed STEAM and music education programs to accompany the drum rings and app. A majority of interest has come from STEAM educators, special needs teachers, makerspace managers and artists from across the world.

Amy Abbott, a K-5 music teacher in Colorado was able to use Specdrums with her students. "It's different, it's unique, nobody else has them. I haven't yet met a kid who doesn't like them, and teachers need them for classrooms," Abbott stated. "A lot of kids are hesitant to use music, including kids on the autism spectrum. Specdrums can be an engaging tool to get them involved in music – the colors and sounds are engaging in a new way."

After commercializing the product, Specdrums was acquired by another Boulder-based company, [Sphero](#), well-known for their connected toys and educational tech products. Dourmashkin and his team will retain oversight of Specdrums and will have more resources to help with engineering and marketing to further the growth of the product. The ability to prove both the market and the manufacturability of the product was critical in the acquisition.

"It was really Protolabs that got us to this point," said Dourmashkin. "Without the help of its team, we would not be as far ahead as we are today."

About Specdrums

Specdrums are wearable, app-connected rings for fingertips. The ring interacts with colors on any type of surface – a table, wall, even fabric. The ring uses sensors to distinguish different colors as different surfaces. The surface of the ring then interacts with colors to produce sound. The sounds are controlled on an iOS or Android application on a mobile device. The interface allows the user to control which sounds are assigned to certain colors. Assignable sounds include drumkits, synthesizers and keyboards, allowing for a wide array of music.

About Protolabs

Protolabs is the world's fastest digital manufacturing source for rapid prototyping and on-demand production. The technology-enabled company produces custom parts and assemblies in as fast as 1 day with automated 3D printing, CNC machining, sheet metal fabrication and injection molding processes. Its digital approach to manufacturing enables accelerated time to market, reduces development and production costs, and minimizes risk throughout the product life cycle. Visit protolabs.com for more information.

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