

Automated Ear-Care Device Advances towards Commercialization with Cool Idea! Award Grant

Protolabs' Cool Idea! Award helps SafKan in meeting customization requirements during pivotal beta program stage

MAPLE PLAIN, Minn. – Jan. 29, 2019 – Tucson-based startup, [SafKan](#), the latest [Protolabs Cool Idea! Award](#) winner, is introducing a pair of headphones that can professionally clean a patient's ear in just 35 seconds.

Every year more than 12 million Americans visit their physicians for impacted earwax removal, which occurs when enough earwax accumulates to cause symptoms such as pain, fullness, itching, odor, tinnitus, discharge, cough, or hearing loss. The Ear & Bladder Syringe has been the standard of care since 1821, which can be frustrating for physicians and painful for patients. Responding to the market opportunity, SafKan developed the first automated ear cleaning device for clinical use, OtoSet.

The headphones have disposable silicone nozzles that spray a warm saline solution against the walls of the ear canal while extracting the solution and wax back into the nozzles and disposable outflow containers, avoiding messy spills. Long-term, SafKan plans to roll out a consumer version of the device but for now OtoSet is to be administered by health care providers.

"It's pretty easy to design headphones on your computer and 3D print it," said co-founder Sahil Diwan. "But then you need to take that to the next level and start to commercialize it. Protolabs has been really helpful with our engineering team, using experience that we don't have in-house to get our device ready to go to market."

Since completing two clinical trials, OtoSet is slated to be introduced in a beta program in several cities including Seattle, San Francisco, Los Angeles, Tucson, Houston, and Philadelphia. With funding from the Cool Idea! Award, SafKan has developed industrial-grade prototypes that are now being tested by more than 50 physicians across the country.

"The SafKan team has developed a brilliant concept and design for managing a condition we commonly see in the office setting," said Dr. Gary Kato, a primary care physician. "As an educator of primary care physicians, I can envision physicians of the future using SafKan's device as an essential tool in patient care. Their innovative device is unmatched in the industry."

Co-founded by brothers Sahil and Aadil Diwan, OtoSet went through several iterations, made possible by the team at [Protolabs](#). SafKan relied on the grant to remove the financial burden from clinical trials to quickly place working prototypes in the hands of physicians.

"Without this grant, it would take more time," said Sahil. "This allows us to build these devices, have them be the real deal, and get them to physicians quickly."

The Diwan brothers leaned on Protolabs' expertise in [Polyjet](#) 3D printing and [CNC machining](#), using 14 unique parts from the digital manufacturer. Once made, the parts for multiple devices were shipped to Tucson, Arizona, where they are assembled and tested by SafKan.

"One of the largest segments we serve as a digital manufacturing company is the medical and health care industry," said Protolabs President and CEO, Vicki Holt. "So when the opportunity comes to support amazing products like OtoSet—devices that are solving real problems for its users—I'm more than thrilled with the fact that we can provide a manufacturing grant to do that."

In the future, SafKan plans to make the product available to consumers, so that the millions of Americans that typically visit their physicians for ear syringing no longer have to.

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.

About SafKan

Every year more than 12 million Americans visit their physicians for impacted earwax removal. The Ear & Bladder Syringe has been the standard of care since 1821, making this procedure frustrating for physicians and painful for patients. SafKan has developed the world's first automated ear cleaning device for clinical use. OtoSet's pulsed irrigation and continuous suction automatically breaks down and removes earwax in just 35 seconds. SafKan is a venture-backed medical device company based in Tucson, Arizona. Visit safkanhealth.com for more information.

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