

## Tech Company Helps People Overcome Disabilities with Assistive Technologies

In the 1990s, Phil Schaefer was working in the safety device industry developing devices like air bags and crash sensors. But many of his projects never made their way into consumer products. “I wanted to see my hard work going into something that seemed useful to society,” who founded Vortant Technologies in 1999 to do just that.

The goal of his company was to create assistive technologies to aid people with disabilities. But because the small market for these types of technologies isn’t highly profitable, Schaefer knew investor funding would be hard to come by. Instead, he turned to NIH Small Business Innovative Research (SBIR) grants for support.

Vortant’s ViVo mouse, developed with SBIR grants from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, allows users to control a computer cursor with their head movements using a webcam. The North Carolina-based company has sold more than 500 devices to students with disabilities, limited mobility workers, people with spinal cord injuries, carpal tunnel syndrome – anyone who struggles to use or can’t use their hands. The ability to use a computer is crucial today, and the ViBo mouse returns that ability to people, allowing them independence and, in many cases, made employment possible.

The company has also worked extensively with the National Eye Institute (NEI) to develop products for people with visual impairments. Now, they are working on an app, funded by NEI, that helps visually impaired people navigate new indoor spaces. The program automatically maps an area, and then users can rely on their smartphone’s audio and vibration technology to guide them.

The company now generates enough in sales to support business operations, but Schaefer says it was a steep learning curve. One especially useful resource—the NIH [Commercialization Acceleration Program \(CAP\)](#)—gave the team important know-how to make the switch from research and development to selling products.

Schaefer says their products greatly increase the quality of life for people with disabilities, which is associated with improved health and productivity. He’s grateful that the SBIR awards have allowed the company to work in an area that has high societal benefit, and that NIH provides commercialization education to propel his products and company forward. “I’ve been amazed at people who are totally restricted to being in a powered wheelchair who have been able to do all kinds of things on the internet that they couldn’t do before,” says Schaefer.



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