



## ***SBIR Success in North Carolina Vortant Technologies, LLC Western North Carolina***

### **SBIR grants awarded to develop assistive technology for disabled people**

**V**ortant Technologies, LLC, a small, high-tech company located just north of Asheville, is developing a novel line of assistive technology products for people with a variety of physical disabilities. The company was originally founded in 2000 and currently consists of four staff members.

The company's first SBIR award from the Centers for Disease Control and Prevention (CDC) was for the development of a low cost, low power module to enable people confined to wheelchairs to test their smoke detectors. The Vortant design met these program requirements with a product that had a projected cost of less than one dollar in quantity, and a ten-year life span using a nine-volt battery. Two non-profit organizations which serve potential end users of the product evaluated Vortant's product.

Vortant received another SBIR award for their unique head tracking device which will enable disabled people to control a computer cursor with the movement of only their heads. This device is targeted to individuals with spinal cord injuries and any other users who cannot or who prefer not to use their hands for mouse control. This device will offer several advantages over other products that currently serve these users. In the Phase I project, funded by the National Institutes of Health (NIH), Vortant constructed a functioning proof of concept and tested it in collaboration with Easter Seals Arizona. Volunteer, human-subject participants used it successfully. Now, the company is currently designing and building a fully functional prototype in Phase II.

Vortant Technologies, LLC has participated in various activities sponsored by the SBTDC, including one-on-one counseling sessions and attendance at SBIR workshops. The SBTDC provided guidance on cost-effective ways for Vortant to attract and hire additional staff members and in searching for collaborative opportunities for new R&D projects. The SBIR workshops provided a unique opportunity to directly interact with SBIR personnel from federal funding agencies and to share experiences with other SBIR awardees. Phil Schaefer, Vortant's chief scientist, said that he would make use of the SBTDC proposal review offer, but as of yet, he has not completed a proposal early enough to be reviewed prior to submission.

The major goal of participation in the SBIR program is to bring R&D projects to market. Vortant Technologies is actively planning the commercialization of its R&D results and is looking forward to working further with the SBTDC counselors who have offered assistance in some of the important steps in this planning. Through the SBIR program, Vortant Technologies intends to create an established R&D and product development presence in western North Carolina.

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***Phil Schaefer  
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