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## Georgia Tech develops a 'SWAN' suit

By Jonathan Jay Gibian

U.S. researchers are developing a wearable computing system designed for visually impaired people, as well as firefighters and soldiers.

Called the System for Wearable Audio Navigation, or SWAN, the technology consists of a small laptop, a proprietary tracking chip, and bone-conduction headphones -- all of which provide audio cues to guide a person from place to place, with or without vision.

The research is being led by two Georgia Tech assistant professors: Frank Dellaert from the college of computing and Bruce Walker from the school of psychology.

"SWAN is a satisfying project because we are looking at how to use technology originally developed for military use for peaceful purposes," says Dellaert. "Currently, we can effectively localize the person outdoors with GPS data, and we have a working prototype using computer vision to see street level details not included in GPS, such as light posts and benches.

"The challenge," he added, "is integrating all the information from all the various sensors in real time so you can accurately guide the user as they move toward their destination."

They recently received a \$600,000 grant from the National Science Foundation to further develop SWAN.

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