Wearable Mobility Device for the Blind and Visually Impaired Being Developed by Toyota

March 07, 2016

San Jose, Calif. (March 7, 2016) – Mobility is empowering. That's why Toyota is working to develop a wearable device for the blind and visually impaired that will help them do more with greater freedom, independence and confidence. Called Project BLAID, it reflects the company's commitment to enrich lives by advancing the freedom of mobility for all.

The device will help fill the gaps left by canes, dogs and basic GPS devices by providing users with more information about their surroundings. Worn around their shoulders, it will help users better navigate indoor spaces, such as office buildings and shopping malls, by helping them identify everyday features, including restrooms, escalators, stairs and doors.

The device will be equipped with cameras that detect the user's surroundings and communicate information to him or her through speakers and vibration motors. Users, in turn, will be able to interact with the device through voice recognition and buttons. Toyota plans to eventually integrate mapping, object identification and facial recognition technologies.

"Project BLAID is one example of how Toyota is leading the way to the future of mobility, when getting around will be about more than just cars," said Simon Nagata, Executive Vice President and Chief Administrative Officer, Toyota Motor North America. "We want to extend the freedom of mobility for all, no matter their circumstance, location or ability."

"Toyota is more than just the great cars and trucks we build; we believe we have a role to play in addressing mobility challenges, including helping people with limited mobility do more," said Doug Moore, Manager, Partner Robotics, Toyota. "We believe this project has the potential to enrich the lives of people who are blind and visually impaired."

As part of Project BLAID, Toyota is launching an employee engagement campaign that invites team members company-wide to submit videos of common indoor landmarks. These videos will subsequently be used by Project BLAID developers to "teach" the device to better recognize these landmarks.

For a preview, visit TheToyotaEffect.com to access a short video, equipped with audio descriptions, which showcases a young man, who is blind, testing an early-stage version of the device.

The Toyota Effect is an ongoing campaign that highlights how Toyota collaborates with other companies, non-profit organizations and others to have a positive impact on people, society and the environment. Previous videos have highlighted how Toyota shares its manufacturing expertise to help nonprofits and small businesses have a greater impact, as well as a unique partnership with Yellowstone National Park to provide zero emissions power to a remote ranger center using old hybrid car batteries.