Gesture recognition device to fast-track with company's invite to Techstars accelerator

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SFU alumni Lukas-Karim Merhi and Gautam Sadarangani, co-founders of Biointeractive Technologies have been invited to join Techstars, one of the top accelerators in North America. The duo hopes to fast-track deployment of their gesture recognition wristband . Credit: SFU

A company founded by a pair of Simon Fraser University alumni has

been chosen to fast-track the deployment of its product—a gesture recognition wristband, the next frontier in human-machine interactions—under the mentorship of Techstars, one of North America's biggest startup accelerators.

SFU alumni Lukas-Karim Merhi and Gautam Sadarangani, engineering science grads, co-lead BioInteractive Technologies (BIT) together with Jose Fernandez, an industry veteran based in the Silicon Valley. The company is based at SFU's Surrey campus as an incubator client of Coast Capital Savings Venture Connection.

The company's product, TENZR, is a wearable wristband that provides a seamless and intuitive platform for gesture-recognition, possessing abilities similar to those featured in the futuristic 2002 film, Minority Report.

Gestures can be used to control mixed reality environments, complex robotic systems, home appliances, and even medical equipment in operating rooms.

"Ubiquitous spatial computing (Virtual Reality, Augmented Reality, Mixed Reality) and the Internet of Things is upon us," says Sadarangani, the company's CTO. "Our proprietary sensor fusion platform and artificial intelligence-based algorithms allow us to detect gestures when donned at the wrist, without the need for calibration, or any external beacons and cameras.

"TENZR allows us to expand beyond the hand-held controller, mouse, keyboard, voice control and camera-tracking systems to include unconstrained gesture recognition," Sadarangani explains. "Gestures are in fact complementary to the use of language (voice) when communicating, and together will allow us to interact with technology intuitively and naturally."

Video: vimeo.com/253893507/3093af3dcc

BioInteractive Technologies is one of 10 teams selected for the inaugural Techstars Anywhere program. Teams benefit from hands-on mentorship, funding and life-long access to the Techstars Network, all designed to help advance the promising start-ups. The acceptance rate for the inaugural cohort was less than one per cent.

"We are honoured and excited to join the Techstars family, and are looking forward to be a part of their network of amazing founders, mentors, and investors," says Merhi. "This will allow our company to achieve its vision to become the leading wearable in gesture recognition, and the de-facto controller of the next decade."

The company became a resident client of SFU's Coast Capital Savings Venture Connection last summer. "Last year we launched our first-generation functional prototypes after significant research and development." says Merhi. "These proved the concept and appetite for wrist-worn gesture recognition, made waves at conventions and made it all the way to the NASA VR lab."

Joy Johnson, SFU's VP Research and International, says: "SFU's innovation strategy—SFU Innovates—helps students and researchers mobilize their ideas for positive social and economic impact. BioInteractive Technologies is a prime example of the game-changing talent and technologies coming out of SFU."

Jennifer Thompson, Mentor-in-Residence at SFU's Coast Capital Savings Venture Connection program and founder of Hardware City, adds: "BioInteractive Technologies is poised to become the next technology break-out story from Vancouver. The team has developed an elegant solution to complex problems in machine control, placing the company firmly at the leading edge of hardware innovation."

FAST FACTS

- TENZR detects six gestures out of the box: hand open, hand closed, up, down, left, and right, and is used as a hands-free and camera-free controller.
- The device can also be customized to create other gesture-recognition solutions depending on the need.
- BIT and its product are already attracting interest from the VR/AR, Internet of Things (IoT), healthcare and automotive industries.
- Last summer, TENZR units were tested at the NASA Johnson Space Center's Astronaut Training Facility's Virtual Reality Laboratory (VRLab) in Texas. NASA is evaluating their use as hands-free and camera-free controllers in their VR training setting.
- BIT is also one of six finalists for SFU's annual Coast Capital Savings Venture Prize competition, to be held on Feb.15.

Provided by Simon Fraser University