

Portable metabolism tracker launched

25 January 2013



Using Breezing in the field to check metabolic activity.
Credit: Breezing

[Breezing](#), a new startup based on technology developed by researchers at Arizona State University, is offering the world's first portable device that can track an individual's metabolism and use that information to provide diet and exercise recommendations for maintaining or reaching a healthy weight.

"The market is full of devices that help people track their [exercise routines](#), such as miles ran or walked, but this is the first portable device that lets people track the most important component of all – their own metabolism," said NJ Tao, ASU professor and director of the Center for [Biosensors and Bioelectronics](#) at the ASU Biodesign Institute.

Breezing is a pocket-sized device that analyzes exhalations and transmits that information to an integrated app on a cell phone or tablet via Bluetooth. The user can then apply that information to customize a diet or [exercise program](#) through the app that will help achieve personal weight goals.

Breezing works via "indirect calorimetry," the preferred [measurement method](#) of the [American Dietetic Association](#), [World Health Organization](#), and other institutions. Traditional indirect

calorimeters are bulky, difficult-to-use and usually found only in doctor's offices. Breezing replaces all that with a simple, handheld device based on cutting-edge [sensor technology](#).

The core technology of Breezing was created at ASU, and further perfected by the ASU spin-off company. NJ Tao, Erica Forzani, Francis Tsow and Xiaojun Xian have been working on the technology to make it accurate, robust, and user-friendly for end-consumers.

"With Breezing, we are taking something that would typically be available in a high-end sports training laboratory and making it available to anyone looking to change their behaviors to become healthier," said Erica Forzani, ASU professor and deputy director of the Center for Biosensors and Bioelectronics at the ASU Biodesign Institute. "In the long run, we can even apply this same technology to help with the prevention and management of chronic diseases."

Breezing is being launched through a crowdsourcing campaign on Indiegogo, the largest global crowdfunding platform.

In the last decade, more than 50 companies have been formed out of business start-ups launched from ASU through Arizona Technology Enterprises (AzTE), the exclusive intellectual property management and technology transfer organization of ASU. Start-up companies that have licensed ASU IP have attracted more than \$300 million in financing from venture capital firms and other investors.

Provided by Arizona State University

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