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## MEDIA RELEASE

# Runners - start the new year on the right note

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App link: <http://at.sfu.ca/rQBPQh>

Images available for download: <http://at.sfu.ca/CGMfdM>

A new app based on technology designed at Simon Fraser University is helping runners to more effectively – and enjoyably – reach and maintain their pace or heart rate goals.

The Cruise Control app is the latest development of biomedical physiologist **Max Donelan** and PhD candidate Mark Snaterse from the Locomotion Lab at SFU. The researchers earlier spent years perfecting how to apply the cruise control philosophy to runners of all levels, enabling them to select and then converge on their desired running speed and intensity.

The new app, which is being unveiled today, takes it a step further, matching the runner's footsteps to a musical tempo, cued to a runner's song playlist. "It feels like your favorite band is right there with you, timing their kick drum to drive you faster and further," Snaterse says.

The idea grew from the discovery that sound tempo can be used to control running speed. "This works much like cruise control in a car, where sound takes the throttle's role," explains Donelan. This research used human experiments and control theory to produce algorithms to control running speed and intensity. "You can set the preferred speed for your run – say, 10 km in 50 minutes – before you head out.

"During the run you just need to synchronize your steps with the sound, almost like you're dancing. The tempo of the sound is automatically adjusted so that you reach your running goal, assuming that you can keep up, of course."

Cruise Control automatically pulls "good running songs" from the music already on the runner's phone into the app and operates in several modes. It's available at the [Apple App Store](#).

Runners can also receive recommended songs for running on twitter (by following @CruiseCtrlRun) or by checking [www.cruisecontrolrun.com](http://www.cruisecontrolrun.com).

SFU's Innovation Office (IO) has filed international patent applications after reviewing the technology.

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### Backgrounder: Runners - start the new year on the right note

Max Donelan is a professor of biomechanics and neurophysiology in the Department of Biomedical Physiology and Kinesiology at SFU.

In addition to being director of the Locomotion Lab he is chief science officer of Bionic Power – a university spin-off

company that is developing energy-harvesting technology for people whose lives depend on portable power.

His best-known invention, prior to Cruise Control, is the Bionic Energy Harvester, featured in the journal *Science* and named to *TIME*'s best invention list of 2008.

Simon Fraser University is Canada's top-ranked comprehensive university and one of the top 50 universities in the world under 50 years old. With campuses in Vancouver, Burnaby and Surrey, B.C., SFU engages actively with the community in its research and teaching, delivers almost 150 programs to more than 30,000 students, and has more than 120,000 alumni in 130 countries.

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