

California Polytechnic State University, San Luis Obispo, California



MEDIA ADVISORY

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Cal Poly Professors, Students Launch Improved Kayak for Disabled Users May 20

What: Launch of the upgraded SoloQuad kayak for disabled users. The SoloQuad is an adaptive kayak designed for a pilot with quadriplegia or paraplegia. At the first launch of the SoloQuad in spring 2008, the motor overheated, requiring the kayak to be towed back to shore. A new team of students working on the project redesigned and improved several elements of the SoloQuad.

Where: Tidelands Park, Morro Bay

When: Friday, May 20 at 9 a.m.

Who: This project is a collaborative effort involving undergraduate students from the Cal Poly Kinesiology and Computer Engineering departments. The students were led by Professor Kevin Taylor of the Kinesiology Department and Professor Lynn Slivovsky of the Computer Engineering Department. Six engineering students and two kinesiology students worked on the project from fall quarter 2010 to winter quarter 2011.

The pilot for the launch May 20 is Bryan Gingg, a Cal Poly alumnus who was the test pilot for the kayak's initial launch in 2008. Gingg has quadriplegia and will be controlling the kayak via a sip and puff device that the engineers reprogrammed to work with the kayak's electric trolling motor.

Background: The SoloQuad Conversion Project began in 2003 with a grant from the Christopher and Dana Reeve Foundation. Currently the project is funded through a grant from the National Science Foundation.

The kayak is controlled via a sip and puff headset or a hand control joystick that relays signals to an electric trolling motor. Initially the system was meant to enable people with disabilities to vote, but the Cal Poly team adapted it to the kayak.

Depending on the pattern of sips or puffs on the straw the kayak speeds up, slows down, reverses and turns from side to side. An active display board lights up to let the user know what command they've given the controller. In case of emergency, the kayak can be shut off via a remote.

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