## Teens' science project earns scholarship

**By Steve Kadel**Correspondent

A private school student and an online student have teamed up to finish second in regional competition in the Central Oregon Community College Regional Science Expo in Bend.

Spencer Bordonaro, who studies online through Baker Web Academy, and Redmond Proficiency Academy's David Novotny earned runner-up honors Friday, March 10, at COCC in Bend.

Both boys won a \$2,000 scholarship to Oregon State University for the showing. They'll compete for the state title at Portland State University on April 8, when 400 contestants are expected.

They entered the engineering and math category in Bend, constructing what they call "Eco-Spin"—a device that produces electricity by pedaling. It also has a table for study or other activities while exercising, and the power generated can illuminate a light and charge a phone battery simultaneously.

Novotny noted there are similar fitness machines, such as stationary bicycles, but said, "Our device is better because you can be doing two things at once."

"It's super-easy to pedal," Bordonaro added.

The Sisters residents are 16-year-old sophomores who hold grade-point averages above 4.0. Bordonaro is the son of Erin Bordonaro, and Novotny is the son of Jana and Jirka Novotny.

The two inventors are old hands at science contests. They've competed through the Bend Research Center for years, with Novotny once grabbing a first-place finish. Both are avid students, too.

"I got into chemistry recently and that's what is driving me now," Novotny said.

"I'm really into engineering," Bordonaro said. "I like math and science."

When not in class, the two can usually be found designing some kind of project just for fun.

"We did rockets," Novotny said. "We're still trying to get them off the ground."

They also enjoy rock climbing, utilizing an indoor climbing gym in Bend during the winter, with plans to climb at Smith Rock State Park.

In an abstract written about the project, they said, "The Eco-Spin is a device that takes power from a human and transforms it into electricity. Our goal for this design is to create a simple and compact system that maximizes the energy produced.

"The Eco-Spin is useful because it is a stand-alone unit that can be easily transported to a city that has lost power or a small village without access to the power grid. The straightforward design makes it easy to troubleshoot."

One judge said the bike and desk combination might be useful at remote military bases with power needs, Novotny noted. But despite receiving encouraging reviews from judges, the Sisters team has no goal of producing and marketing its product.

"It's just a fun project," Novotny said.

#PeoseToks: Eco-Spin Notebook

David Novotny, left, and Spencer Bordonaro of Sisters finished second in a regional science expo in Bend for their Eco-Spin project.



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