

Innovative, off-road wheelchairs hit the US market

December 14 2012, by Elaine Bible



San Francisco resident Brian Tsai is one of the first U.S. customers to use a RoughRider wheelchair.

The rugged, low-cost wheelchairs designed by SF State's Whirlwind Wheelchair program have helped thousands of people in developing countries. Now they're available in the U.S., where they are opening up new territory for American wheelchair-riders, from hiking trails and beaches to snow-covered ground.

Whirlwind Wheelchair's flagship "RoughRider" wheelchair uses off-road mountain bike wheels and helps people in Third World countries travel across [rough terrain](#), such as muddy village paths and potholed streets. The product has already provided independence and mobility to [disabled people](#) in more than 40 developing countries, including earthquake survivors in Haiti.

After recently gaining [FDA approval](#), the RoughRider wheelchair is now for sale in the United States.

San Francisco resident Brian Tsai was one of Whirlwind Wheelchair's first U.S. customers.

"My RoughRider takes me places I want to go and allows me to live my life with more freedom and comfort," said Tsai, who has tried various different wheelchair models since he began using a wheelchair in 2003.

"Now, I'm no longer limited to smooth [pavement](#)," he said. "I can travel over dirt and grass, and can do things I couldn't do before like accepting an invitation to a picnic."

The RoughRider's debut in the U.S. is an example of "trickle up innovation," in which products designed for developing countries work their way back to Western markets. Because of its unique design, such as the use low cost and easily replaceable bicycle parts, the RoughRider costs about a third of the price of most wheelchairs sold in the U.S.

For every RoughRider purchased in the U.S., Whirlwind Wheelchair will also donate a wheelchair to a person in the developing world through their "Buy-One-Give-One" program. The proceeds from each wheelchair sale enable the program's engineers to design new products, operating out of their research and development lab at SF State. Currently in the works are a children's wheelchair and a hand-powered

tricycle, both designed to bring mobility to people in [developing countries](#).

"This is in line with our nonprofit mission," said Keoke King, marketing manager for Whirlwind Wheelchair. "Our goal is to support our service to people with disabilities in the [developing world](#), where 20 million people need a [wheelchair](#) and do not have one."

More information: To purchase a RoughRider or make a donation to Whirlwind Wheelchair, visit www.whirlwindwheelchair.org/

Provided by San Francisco State University

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