

## ATV Is Wheelchair Friendly

Wheelchair users can safely enjoy all-terrain travel with this new flexible chassis, 6-WD HexHog from Great Britain. Sion Pierce, an engineer and son of a farmer introduced the innovative ATV in Great Britain, but says it's also available for export.

"People who have driven the machine love its stability over rough ground," says Pierce. "Some people thought it impossible to reach areas the HexHog can access safely. The flexing chassis irons out the lumps and bumps. The machine hugs the ground like a centipede when you ride it over rough areas. You can safely ride up 50 percent slopes."

Pierce got the idea for the machine because a member of a farm family he knew was unable to run a standard ATV. Pierce designed the unique ATV while an engineering student, then worked with Da Vinci Wheelchairs, Ltd. to bring it to market.

The 6-WD HexHog is lithium ion battery-powered with each wheel independently driven from left and right motors. The motors offer primary braking with backup disc brakes. The battery offers an 8 to 12-mile range depending on terrain and recharges in less than 2 hrs. with its high frequency charger.

"The HexHog has a top speed of 8.5 mph with its standard configuration; however, that can be altered on request," says Pierce. "We use a joystick control with adjustable damping and acceleration/deceleration. An emergency stop button on the armrest will isolate the battery and apply brakes."

The front-mounted seat on the HexHog is designed to make transfer from a wheelchair easier. The transfer mechanism lowers the HexHog seat and extends it out ahead of the front wheels for easy pivot or slide transfer of the operator.

The HexHog weighs in at 640 lbs. and is priced at just over \$30,000. In the U.K., an add-on kit allows it to be driven on the road with a standard license.

"The HexHog is brand new to the market, so exposure has been limited thus far," says Pierce.

You can see the HexHog in action at [FARMSHOW.COM](http://FARMSHOW.COM).

Contact: FARM SHOW Followup, Da Vinci Wheelchairs Ltd., 6 Carraway Rd., Liverpool, Merseyside, UK L11 0EE (ph 151 548 1999; [sales@davincimobility.co.uk](mailto:sales@davincimobility.co.uk); [www.hexhog.com](http://www.hexhog.com)).



Front-mounted seat on the 6-WD HexHog is designed to make transfer from a wheelchair easier. The transfer mechanism lowers the seat and extends it out ahead of the front wheels.



HexHog hugs the ground like a centipede when riding over rough areas.

## Go-Anywhere Wheelchair

A photo of a different kind of "wheelchair" that we spotted in a British farm magazine prompted us to track down the company that makes the all-terrain chair.

Kim Butler, administrator for Molten Rock, the U.K. company that designed and manufactures the off-road wheelchair, says the lightweight but sturdy bicycle-based design was developed by Chris Swift, who was paralyzed by a neurological disease in 1995. Swift, an agricultural engineering student, needed something to get him around rough terrain. A trust-funded research project resulted in the first prototype in 2005. Several improvements have been made since by engineer Jon Anders who builds the chairs, called Boma.

The design allows it to be customized for people with wide ranges of abilities.

"It's the only off-road wheelchair available with head or chin controls for riders with no hand function," Butler says. "The standard

version with handlebar control has a twist grip throttle to accelerate and fail-safe braking (release the throttle and the chair stops). The handlebars can be removed for easy sliding transfer. The chair is also available with joystick control for individuals with limited hand function."

With 20-in. BMX tires on the front and 24-in. mountain bikes tires on the back, the Boma maneuvers well on grass and gravel and through mud, snow and sand. It can climb 8-in. steps and travels easily on slopes up to a one-in-six gradient. Battery powered with front and rear suspension, it's quiet and relatively smooth.

A pair of batteries powers the chair for 12 to 16 miles. An additional set of batteries can be added. The 68-in. long, 176-lb. rig rolls easily up a ramp into a pickup minivan or trailer or on a rack on the back of a vehicle.

The Boma can be purchased in North America directly from Molten Rock in the



Off-road wheelchair comes with handlebar control, including a twist grip throttle to accelerate and fail-safe braking. Joystick control is also available.

U.K. The company plans to set up North American distributorships by the end of 2014. Current cost starts at about \$11,850 U.S.

Contact: FARM SHOW Followup, Molten

Rock Equipment Ltd., Unit 2, Rook Tree Farm, Hulcote Milton Keynes, Bedfordshire, UK MK17 8BW (ph 44 0 1908 585648;

[www.moltenrock.co.uk](http://www.moltenrock.co.uk)).

## All Terrain Tracked Chair

An Austrian company wanted to showcase the power in its newly developed modular lithium ion battery system, and ended up creating the Ziesel. The vehicle is not an ordinary tracked chair.

"The Ziesel power train is on a very high performance level and very compact. It shows what is possible with today's technology. So you cannot compare it with wheelchair technology," says Alois Bauer, with Mattro Mobility Revolutions of Austria.

With a 4-point safety seatbelt, rollover protection and joystick steering it certainly works as a vehicle for people with mobility disabilities. But it has potential for a variety of uses.

"The high power in a very limited space makes this power train interesting for a lot of small vehicles," Bauer says. "Inside the Ziesel it results in perfect driving performance on nearly all surfaces, from the sand on the beach to deep snow."

The battery technology powers the chair—quietly—for more than 4 hours driving in the snow in fast mode. The Ziesel can travel more than 20 mph. The rubber tracks have excellent traction with low ground pressure. Recently introduced, it's attracting attention



Powered by a modular lithium ion battery system, new all-terrain tracked chair moves easily over nearly all surfaces.

in Europe, and Bauer notes Mattro would like to hear from interested dealers and/or manufacturing partners in North America, which would create regional jobs and reduce transportation costs.

The Ziesel weighs 540 lbs. and retails for 21,710 Euros (about \$29,500 U.S.). Options include a charger, LED lighting, tow bar, heated seat and metallic paint. Check out the website to see the Ziesel in action and for more information.

Contact: FARM SHOW Followup, Alois Bauer ([mattro.eu](http://mattro.eu) or [info@derziesel.com](mailto:info@derziesel.com); [www.derziesel.com](http://www.derziesel.com); [@](mailto:alois.bauer)).



Hand crank attached to wheelchair frame is used to raise and lower grader's 42-in. blade.

## Grader Built From Old Wheelchair

Some parts may be a little rusty, but Earl Wagner is proud of a scraper blade he made from an old wheelchair and a 42-in. blade he got from a welder he hires to assemble many of his projects.

"The wheelchair frame is used to raise and lower the blade," he explains.

He had the welder beef it up with stabilizers and 2 by 2 square tubing to keep it straight, and he replaced the wheels.

The channel steel hitch uses two pins to

keep the blade from swinging. Though a hand crank off a satellite dish works to raise and lower the blade, Wagner plans to purchase a 12-volt electric linear actuator to make it easier.

The grader pulls easily behind a lawn tractor, and the blade turns both ways to move dirt to either side.

Contact: FARM SHOW Followup, Earl Wagner, 40744 River Rd., Dade City, Fla. 33525 (ph 352 521-5082).