

New Mobility Concept Breaks Down Barriers – The “HexHog” is Here!

- Versatile vehicle offers wheelchair users accessibility to rugged areas equal to that of people on foot.
- Innovative design employs latest lithium-ion battery technology, patented flexing chassis and all-wheel drive transmission.

The HexHog offers unprecedented new levels of access to all terrains. The battery-powered, six-wheel all-wheel drive machine gives wheelchair users the ability to go virtually anywhere able-bodied people can go on foot, at the push of a joystick.

The HexHog was launched in April at the Naidex National trade show for the independent living aids industry. It's a new concept, designed from the ground up to solve the problem of genuine all terrain access for wheelchair users.

The Hexhog's patented flexible chassis is the key to the vehicle's capability, as explained by inventor Sion Pierce: "The flexing chassis irons out the lumps and bumps for a confident journey as the machine hugs the ground like a centipede when you ride over brows and troughs. You can even ascend 60% slopes."



Pierce, a mechanical engineer, developed the design over five years, building on his experience of mechanised handling and control systems to design the HexHog. Having grown up on a family farm in Wales, he used this land to trial his designs.

Often described as an all-terrain wheelchair, the HexHog is actually an ATV designed for wheelchair users. "You can't take the HexHog into supermarkets, but you can cross moorland, farmland or even peat bogs. The open fronted design means users can look towards the horizon and enjoy the journey without having to focus on the ground, looking out for that ditch or rut that could disrupt regular wheelchairs. It can be driven on the road with a standard car licence (with an add-on-kit) and will pass through four-foot gates" explains Pierce.

Now Pierce's company Off-Road Engineering has teamed up with Da Vinci Mobility of Liverpool to bring the Hexhog to a wider audience.

Another unique feature of the HexHog is its seat transfer mechanism. This lowers the seat to a position beyond the front wheels to enable independent pivot or slide transfers from a wheelchair.

Power for the HexHog comes from the latest lithium-ion batteries which feed two pancake motors that deliver 650N·m of torque to the wheels. This gives the Hexhog enough power to climb hills and obstructions such as rocks and steps.



The battery powered system offers advantages over alternative power sources such as engines, and it is comparatively quiet, clean and low maintenance. The system also incorporates advanced battery monitoring, where power is measured in and out of the cells to act as an accurate fuel gauge. A fully charged battery will provide a range of 12 miles in optimum conditions. This type of battery can handle quick top-up charges, allowing multiple journeys in one day.

The HexHog has been designed to endure harsh environments and so its 6x6 transmission provides drive to all wheels through sealed gearboxes and connecting shafts. Positioning the two drive motors at a high level means there will be no problems from mud or water ingress.

The HexHog is expected to be of interest to anyone who wants access to the outdoors where conventional wheelchairs do not allow. The HexHog provides the ideal accompaniment to outdoor activity centres allowing wheelchair users the same level of enjoyment and access as all visitors. The HexHog is an excellent alternative to quad bikes, where wheelchair users can ride the HexHog on the same tracks safely and independently.

The HexHog weighs 290kg. It can be transported behind small cars with a lightweight trailer. A remote control system is also available for independent loading and unloading.

Further Information

See the HexHog in action at: www.Hexhog.com

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