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Hutchinson enhances exoskeleton accessibility with Nonius magnet rings

Hutchinson is proud to announce its collaboration with Wandercraft, a pioneer in medical robotics, on an innovative project aimed at making exoskeletons more accessible to the general public. As expert in the development and manufacture of angle and speed measurement solutions for magnetic encoders, Hutchinson is contributing to the success of this initiative by integrating compact Nonius magnet rings for precise and immediate angular control.

The Atalante X autonomous walking exoskeleton, a key tool for healthcare professionals, is dedicated to rehabilitation in medical centers. A new platform for personal use is currently being developed to enable a major advance in autonomy for private individuals. Wandercraft is working on optimizing its robot and standardizing its components to make the product accessible to as many people as possible.

Engineer-to-engineer approach for a tailor-made robot

The engineer-to-engineer approach of Hutchinson and Wandercraft teams has enabled the development of a tailor-made system adapted to the architecture of the new robot. Each of the robot's joints is equipped with a sensor featuring Nonius magnetic targets designed and manufactured by Hutchinson, enabling instant and absolute angular control. As soon as the robot is activated, the position of each axis is known, before any movement is triggered.

Cost reduction and improved performance with Hutchinson magnet rings

Hutchinson's compact magnet rings enable the creation of leaner, lighter exoskeletons. The cost of the system, including a Hutchinson magnet ring and the iC-Haus chip, is cheaper than a traditional encapsulated sensor solution. This mass-produced system also offers enhanced performance in terms of:

- Precision
- Compactness
- Robustness



Hutchinson noius magnet ring



"Mobility is part of Hutchinson's DNA. Today, we are proud to be part of a pioneering human adventure that will enable people to regain their freedom of movement", says Laurent Khouri, Industry Market Leader at Hutchinson, Segré-En-Anjou Bleu, FRANCE

Already established in the medical market, Hutchinson aims to increase its presence by offering reliable, sustainable and long-lasting solutions.

Hutchinson commitment:

- Guarantee the repairability and maintainability of parts
- Provide technical support to adapt the product to specific problems

About us

At Hutchinson, we design multi-material solutions for customers operating in the most demanding environments, whether on land, in the air or at sea. We use science and technology to create solutions that make mobility and industry safer, more sustainable and comfortable. Working closely with our customers, we innovate to meet their challenges and help them move towards a low-carbon future.

Hutchinson has declared sales of 4.8 billion euros in 2023 and has over 40,000 employees in 25 countries, whose ambition and mission is to contribute to safer, more comfortable and responsible mobility for the future.

Visit our website: precisionsealingsystems.hutchinson.com

Discover the Wandercraft exoskeleton

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