Hexagon presents autonomy and positioning solutions at FIRA USA

The leader in agricultural positioning solutions will attend one of the main events focused on Agricultural Robotics

Hexagon's Autonomy & Positioning division, a leader in agriculture technology, will attend FIRA USA, the Agricultural Robotics Forum hosted by GOFAR (Global Organization for Agricultural Robotics), from October 22-24 in Woodland, California. The event brings together experts, researchers, companies, and farmers to discuss and present technological innovations that can transform agriculture.

The company will have a booth at the event where experts will be available to answer questions and expand the knowledge of the robotics industry about Hexagon's solutions that increase the efficiency, accuracy, reliability and safety of agricultural robotics.

Globally autonomy is trying to solve a whole range of problems, from increasing the resolution of the way we farm to the way we manage the inputs into production, however there is one common pain point which our customers face and that is labour availability. The U.S. Department of Agriculture reported that between 2020 and 2022, the agricultural workforce in California further declined by about 10%, exacerbating the existing labour deficit. Approximately 60% of California farmers reported challenges in finding enough workers.

"FIRA USA brings together a unique group of people who are trying to better the global agriculture industry. Hexagon's technology provides the reliable foundation that robotics manufacturers need to bring autonomy to field operations helping to address the increasing challenges of farmers, including; labour shortages, input usage, soil health and safety. At the event, we will promote the next level of solutions with positioning and

machine control solutions to provide easy integration and safer machine operation", said James Szabo, Hexagon's Autonomy & Positioning division's senior agriculture autonomy product manager.

Attendance at FIRA USA

FIRA USA seeks to modernise agriculture through technology, providing a platform to share knowledge and present innovative solutions that can enhance productivity and sustainability in agriculture. This year, more than 2,500 people and more than 80 exhibitors are expected to attend.

The Hexagon team will be exhibiting satellite positioning, machine control and perception technologies at the booth. These technologies provide agricultural machinery manufacturers a complete solution to achieve greater autonomy and positioning precision, or can be integrated independently to allow for flexibility and scalability. According to Szabo, optional firmware can be added as requirements evolve, and regular functionality and technology updates provides longevity to the hardware. For example, the SMART7 Antenna, which functions as a primary receiver of multi-constellation and multi-frequency GNSS signals; and the SMART2 Antenna, Hexagon's entry-level solution, which offers benefits such as dual-frequency tracking and terrain compensation, when combined, they provide redundancy in positioning and a high accuracy heading, even when the vehicle is stationary or slow-moving. In addition, the Core Box will be exhibited, a technology that functions as a steering controller that can be receive navigation coordinates through Ethernet or Wi-Fi and support multiple steering actuator types. Offering modular and simple to integrate solution for manufacturers.

"Having reliable equipment that correctly determines the direction in which a machine is oriented is essential to autonomy in the field. In practice, industry scenarios can be challenging, and it is important that equipment can be controlled remotely with confidence and safety," Szabo says. "GNSS positioning, machine control and perception are the foundational technologies to enable this."

Hexagon's Autonomy & Positioning division was recently announced as the winner of the Spirent Sustainability Through Navigation Award from the Royal Institute of Navigation in England. This award recognised the company's significant contribution to sustainability in the global agricultural industry through their work in enabling autonomous solutions with robust and reliable positioning, navigation and timing solutions.

Press:
Contact us through agriculture@hexagon.com