

Norck Robotics Launches Precision Actuation Suite to Power the Smart Factories of 2026

Norck Robotics Unveils Next-Generation Precision Actuation Systems for Industry 5.0 Smart Factories

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EINPresswire.com/ -- Norck Robotics, a global leader in custom engineering for industrial automation, today announced the strategic launch of its next-generation [precision actuation systems](#). This comprehensive suite of technologies is specifically engineered to overcome the physical and operational limitations of traditional automation, offering unprecedented accuracy and modular adaptability for [robotic end effectors](#) in the world's most demanding manufacturing environments.

As global supply chains accelerate their transition toward "Industry 5.0" and highly autonomous

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Precision is no longer optional in smart factories-our actuation systems deliver micron-level control for faster, smarter, and more reliable automation.”

Mucahit Basaran, CEO

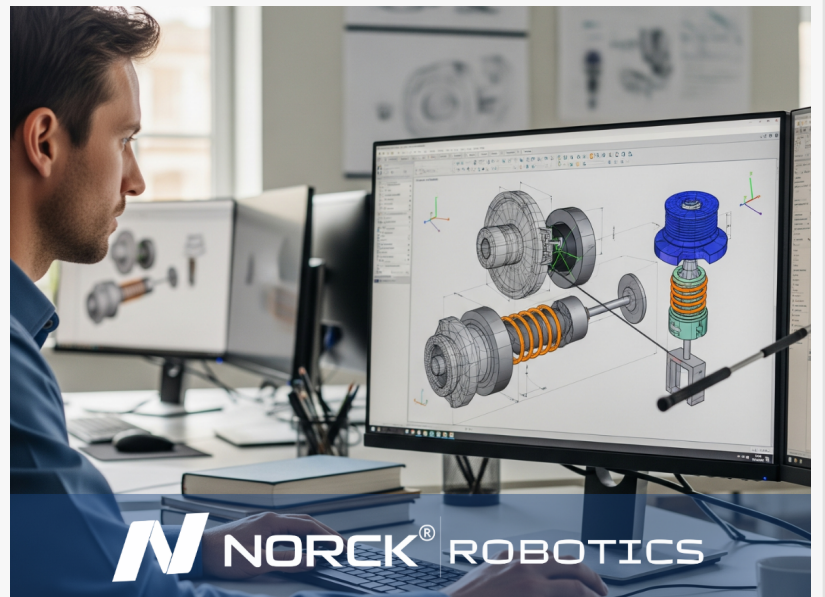
"Smart Factory" models, the demand for dexterous, ultra-precise motion has rendered standard, off-the-shelf tooling insufficient. Norck Robotics addresses this critical gap by moving beyond individual component sales into fully integrated, systems-level robotic engineering.

Engineering the Future of End-of-Arm Tooling

Standard robotic systems often hit a performance ceiling when tasked with handling complex geometries, non-rigid

materials, or high-speed micro-assembly. Norck Robotics eliminates these bottlenecks by combining advanced mechanical excellence with application-specific intelligence. The new systems are built upon a foundation of:

- Custom fixturing solutions: Designed to provide secure, vibration-resistant part handling tailored to the exact dimensions of the workpiece.



- Precision cycloidal gearbox: Utilizing a unique internal geometry to provide high torque density and exceptional positional accuracy with near-zero backlash.

- [High-precision bearings](#): Strategically integrated to ensure long-term mechanical stability, reduced friction, and consistent repeatability even under 24/7 heavy duty cycles.

A Specialized Actuation Portfolio

At the heart of this launch is a versatile range of actuators designed to solve the most difficult motion control challenges in modern production:

- High precision linear actuator: Developed for applications requiring micron-level positioning, these actuators provide the smooth, controlled linear motion necessary for semiconductor and aerospace assembly.

- Voice coil actuator: By utilizing a frictionless design, these units deliver ultra-fast response times and zero backlash, making them ideal for high-speed pick-and-place operations where milliseconds matter.

- Soft robotics actuators: These bio-inspired systems provide the "human touch" required to handle delicate, organic, or irregular objects without the risk of surface damage, a breakthrough for the medical and electronics sectors.

Executive Vision

"The primary bottleneck in modern automation is no longer the speed of the robot arm itself, but the lack of dexterity and tactile intelligence in the tool at the end of it," said Mucahit Basaran, CEO of Norck Robotics. "By integrating our proprietary precision actuation systems directly into the tooling, we are bridging the gap between raw mechanical power and surgical precision. This is not just an upgrade; it is a fundamental shift in how robots interact with the physical world."



Voice coil actuator



Norck Robotics engineers optimizing robotic systems through precision design and innovation.

Driving Operational Efficiency and Scalability

By unifying robotic end effectors with custom fixturing solutions, Norck Robotics enables manufacturers to achieve:

Reduced Cycle Times: Faster actuation and more secure gripping lead to higher throughput.

Increased Yield: High-precision motion reduces material waste and part damage.

Rapid Reconfigurability: The modular nature of these systems allows production lines to adapt to new product designs with minimal downtime.

This integrated approach ensures that every solution is optimized for the specific mechanical stresses and precision requirements of the client's facility, providing a future-proof foundation for scalable automation.



About Norck Robotics

Norck Robotics is a specialized engineering division focused on delivering industrial robotics solutions, custom robot design, and high-performance automation components. With dual headquarters in Irvine, California and Mannheim, Germany, the company leverages its deep heritage in high-precision manufacturing to provide advanced precision actuation systems, high-precision bearings, and customized end-of-arm tooling to innovative partners worldwide.

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Norck

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