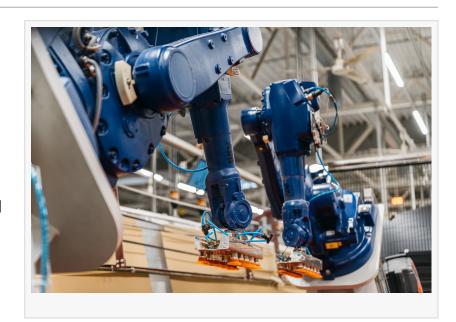# VMG Technics Brings Next-Gen Robotics and AI Innovations to LIGNA 2025

VILNIUS, LITHUANIA, May 26, 2025 /EINPresswire.com/ -- At LIGNA 2025, the world's leading trade fair for the woodworking and wood processing industries, VMG Technics, the robotics and industrial automation innovators within the international investment company VMG Group, will unveil its latest AI-powered solutions developed to address current industrial challenges in woodworking manufacturing.

The Lithuanian company, home to the largest in-house R&D Park in the Baltics, is bringing a proven portfolio of custom solutions for the wood processing industry to Hannover. Most are developed in response to client-identified challenges: labor shortages, costly human error, slow production speeds, and inefficiencies. These issues have been transformed into creative engineering solutions — from robotized packaging and prefabrication systems to AI vision and anomaly detection tools—all designed to meet the demands of Industry 4.0.

> At LIGNA, we're demonstrating how our tailored, high-precision automation solutions help eliminate repetitive inefficiencies and support manufacturers across Europe."
>
> *Mantas Leknius, CEO at VMG Group*

Empowering industrial transformation through innovation

At LIGNA 2025, VMG Technics will showcase its newest products and solutions, including intelligent production systems integrating machine vision, deep learning, and anomaly detection. These technologies help wood processing companies minimize human error and optimize output.

"The demand for robotization is growing rapidly across industries," says Mantas Leknius, CEO of VMG Technics. "At LIGNA, we're demonstrating how our tailored, high-precision automation

solutions help eliminate repetitive inefficiencies and support manufacturers across Europe. In today's fast-paced environment, only the most adaptable companies thrive."

He admits that it takes time and many experiments to shape smart ideas into working solutions. For instance, it took VMG Technics engineers nearly four years to overhaul the packaging operations of Klaipėdos mediena, one of the largest furniture manufacturers in the Baltic region. In response to recurring bottlenecks and labor constraints, the company introduced machine vision for inspection, robotic forming and sealing systems, and automated cells for defect handling — all integrated without disrupting production lines.

As a result of this automation upgrade, the company saw a 33% increase in packaging productivity, growing from 16.3 to 21.76 square meters per hour. The production speed also increased from 9 to 12 product parts per minute. Additionally, the improvements led to significantly better workplace safety, reduced strain, and stabilized product quality through automated inspection and minimized errors.

Saving time by reducing costly downtime

In another case, Sakuona, a curved plywood manufacturer, faced major financial losses due to operational downtime. Production lines are estimated to typically stand still for 2-3 hours per week due to unnoticed issues. VMG Technics' engineers addressed this with a deep learning model, the Siemens SIMATIC S7-1500 TM NPU, trained with anomaly detection algorithms and historical data.

"In this case, AI is tasked with anomaly detection and preventing production jams. This is achieved through specialized algorithms and by utilizing existing operational data", explains Augustas Urbonas, Head of the Computer Vision Group at VMG Technics.
His team is already working on implementing additional AI-powered tools to detect problems early and preempt costly production stoppages.
An experimental testing environment for future robotic engineers

What began as experiments to solve in-house challenges at VMG Group has evolved into a broader mission: to empower the next generation of robotic engineers. In 2024, VMG Technics launched the largest in-house R&D Park in the Baltics. A 21,000-square-meter facility in Klaipėda, Lithuania, functions as a collaborative hub for developing and testing intelligent robotics, sensor systems, and production optimization tools.

It also serves as a bridge between industry and education, fostering partnerships with local universities and technical schools. "We've partnered with global automation leaders like ABB and SMC Corporation to stay ahead of industry needs and educate the next generation of engineers," says Mindaugas Gudelis, training and development project manager at VMG Technics. "This is a space for continuous learning as well as developing and testing products to solve the most pressing industrial challenges."

About VMG Technics

With over 20 years of industry experience, VMG Technics — part of the global investment company VMG Group — is an innovation-driven company focused on the comprehensive improvement of production processes. It operates across four strategic areas: automation and robotization, industrial constructions, metal stamping, and technical service. The company is also home to the largest in-house innovation and and R&D Park in the Baltics, spanning 21,000 square meters.

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This press release can be viewed online at: https://www.einpresswire.com/article/816099046