

Automotive

Manufacturing **fast** without compromising on **quality**

Lotus Technology

To boost the efficiency of its brand-new electric vehicle manufacturing site in China, Lotus Technology deployed Lenovo Smart Eye for AI-powered quality inspection—enabling it to detect defects with 99% accuracy.



Lenovo

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Who is Lotus Technology?

Founded in 1948, Lotus Group is a global performance car brand built on a rich heritage. For over 75 years, the company has been pioneering true automotive innovation, introducing cutting-edge technologies and designs to meet its uncompromising vision of how a car should look, perform, and feel.

Lotus Group is made up of a high-performance sports car business, Lotus Cars, and an all-electric luxury mobility provider, Lotus Technology. Headquartered in Wuhan, China, Lotus Technology will manufacture Lotus electric vehicles for global markets, with a production capacity of 150,000 units per year.



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The Challenge

Lotus Technology aims to accelerate innovation in the fields of batteries and energy management, electric motors, electronic control systems, intelligent driving, intelligent manufacturing, and more.

A company spokesperson says: “Our Wuhan facility is the world’s first automotive factory that uses 3D digital twin technology for the entire manufacturing process, including planning, design, and construction.”

To ensure high levels of efficiency at the new Wuhan facility, Lotus Technology decided to extend its use of cutting-edge technology to the factory floor.

“Every car that rolls off our new production line will be tailored to the individual customer who ordered it—and we want every vehicle to meet the customer’s requirements perfectly,” continues the spokesperson. “Performing quality inspections for so many customized vehicles manually threatened to create a bottleneck on our production line—preventing us from hitting our production capacity target. To solve that challenge, we wanted to automate the process.”

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“Our new manufacturing site in Wuhan is scheduled for completion in 2024. With the go-live date fast approaching, we looked for a vendor that could deliver on our vision for quality control automation.”

Spokesperson
Lotus Technology

Enabling AI-powered quality control

To bring intelligent automation to its new manufacturing site, Lotus Technology engaged Lenovo to build an AI-powered solution. Powered by machine vision technology developed by Lenovo Research Shanghai, Lenovo Smart Eye is an industrial inspection solution that can rapidly analyze video data and detect potential defects.

The hybrid cloud infrastructure platform offers high levels of operational cost-efficiency, agility, and scalability. The spokesperson confirms: “One of key advantages of Lenovo Smart Eye was that we could deploy and train the solution very quickly, enabling us to keep to our go-live timetable.”

Software

Lenovo Smart Eye

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“We were very impressed with Lenovo leadership in AI, and the speed and agility of their implementation services. Working closely with Lenovo, we rapidly deployed the hybrid cloud infrastructure and on-site equipment. On the factory floor, Lenovo Smart Eye controls cameras mounted on robotic arms to inspect almost every inch of each vehicle as it moves along the production line.”

Spokesperson
Lotus Technology

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Results

Through its collaboration with Lenovo, Lotus Technology has now outfitted its Wuhan manufacturing facility with AI-driven inspections—allowing the company to keep the production line moving fast without compromising on quality.

“Lenovo Smart Eye can detect defects with 99% accuracy, which will help us ensure that every vehicle meets our rigorous quality standards,” says the spokesperson.

“With Lenovo Smart Eye at the heart of our state-of-the-art manufacturing facility in Wuhan, we’re ready to delight customers around the world with a new generation of customized electric cars.”



99% defect-detection accuracy



Minimizes IT infrastructure costs



Enables high-quality manufacturing

Why **Lenovo**?

Lenovo has deep expertise in implementing advanced AI solutions for the manufacturing industry, which gave Lotus Technology confidence that it was the right partner for its quality-control automation project.

“Lenovo presented several compelling reference cases, including a leading industrial manufacturer in China that was already using Lenovo Smart Eye on their production line,” recalls the spokesperson. “That customer was using the solution to proactively detect defects early in the manufacturing process, enabling them to boost production efficiency by 15% and reduce production line downtime by 15%. Because Lenovo had such a strong track-record of success, they were clear choice for Lotus Technology.”



How can manufacturers boost quality and throughput?

Lotus Technology fully automates quality-control inspections on the production line with Lenovo Smart Eye.

[Explore Lenovo AI Solutions](#)