Quantinuum Announces Collaboration with Synopsys Toward Advancing Industrial Design with Quantum Computing

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Collaboration targets quantum-enhanced approaches to simulation and design challenges across aerospace, life sciences, semiconductors, and advanced manufacturing

Broomfield, CO, May 19th, 2026 —Quantinuum, a leading quantum computing company, today announced a strategic collaboration with Synopsys, a global leader in electronic design automation and engineering simulation, focused on the integration of quantum computing into the modern engineering toolkit to help overcome the "computational wall" believed to be limiting the pace of industrial innovation.

The Challenge: Designing for Accuracy in the Physical World

Modern industrial design depends on high-fidelity simulation to make better decisions earlier — potentially reducing costly prototypes, shortening development cycles, and improving product performance. Across aerospace and advanced electronics, teams rely on computational fluid dynamics (CFD) and electromagnetic simulation to predict real-world behavior before build and test.

However, as products become more complex, simulation workloads scale dramatically and can require computational resources that exceed the capabilities of even the most advanced classical supercomputers. As a result, engineers must increasingly balance simulation accuracy against runtime, cost and development speed. The collaboration between Quantinuum and Synopsys seeks to overcome these limitations by integrating quantum computing capabilities directly into advanced engineering workflows.

"Our goal is to turn quantum computing into a practical business advantage for the world's most innovative companies," said Dr. Rajeeb Hazra, President and CEO of Quantinuum. "By improving how these core design equations are solved, we aim to help innovators explore more accurate models and accelerate breakthroughs in materials and next-generation technologies."

Transforming Industrial Design with Quantum Computing

The companies aim to build a scalable, end-to-end workflow that integrates quantum algorithms directly into existing industrial software and libraries. By combining the industry-leading accuracy[1] of Quantinuum's systems with Synopsys' deep expertise in engineering simulation and design tools, the partnership aims to make quantum computing a functional part of the modern engineering toolkit.

"This partnership is about giving innovators the tools they need to solve the world's most difficult design challenges," said Prith Banerjee, Senior Vice President of Innovation at Synopsys. "By integrating quantum computing into today's engineering workflows, we believe we can accelerate innovation while maintaining the standards and reliability that customers trust."

The collaboration focuses on three key goals aimed at driving value for the engineering sector:

- **Higher Accuracy for the Physical World**: Enabling engineers to model critical physical details that were previously too costly for classical supercomputers to capture accurately.
- **Faster and More Cost-Effective Simulations**: Accelerating simulation timelines to help companies move from concept to prototype faster while significantly reducing R&D costs
- **Greater Augmentation and Scale for Existing Workflows**: Ensuring new quantum-native solvers maintain the rigorous validation standards and modeling intuition that industrial users demand.

By building on established CFD and electromagnetic capabilities, this effort aims to allow that as quantum computers scale, industrial engineers can explore future computational advantages without having to reinvent their design process. This approach builds on decades of validated engineering expertise while opening a new potential path alongside the new frontier for computing.

About Quantinuum

Quantinuum is a leading quantum computing company offering a full-stack platform designed to make quantum computing deployable in real-world environments. The company has commercially deployed multiple generations of quantum systems built on the well-established QCCD architecture, which it has implemented with novel designs and capabilities to achieve the industry's highest accuracy levels based on average two-qubit gate fidelity.[2] Quantinuum has active engagements with market leaders

across pharmaceuticals, material science, financial services, and government and industrial markets.

The company has a global workforce of approximately 700 employees, including top scientists and researchers. Over 70% of its technology team holds PhDs and Master's degrees. Quantinuum's headquarters is in Broomfield, Colorado, with additional facilities across the United States, United Kingdom, Germany, Japan, Qatar, and Singapore.

For more information, please visit www.quantinuum.com.

[1] Based on average two-qubit gate fidelity of 99.921% as of December 31, 2025.

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