



JuliaHub Announces Dyad 3.0 General Availability, Bringing Agentic AI to Physics-Based Engineering

Descrizione

COMUNICATO STAMPA - CONTENUTO PROMOZIONALE

New release gives engineering teams an AI-native simulation partner that turns requirements, prior designs, test data, and natural-language prompts into validated models and deployment-ready code.

CAMBRIDGE, Mass., May 27, 2026 /PRNewswire/ - JuliaHub today announced Dyad 3.0, a major release of its AI-native systems simulation platform for the design, refinement, and validation of complex physical systems. Dyad 3.0 introduces autonomous simulation agents that work alongside engineers to interpret specifications, mine prior designs and test data, generate candidate models, run physics-based simulations, enforce physical and safety constraints, and produce validated models and control code. Dyad is already in production with Fortune 100 customers and is being demonstrated today in a global livestream.

AI has transformed software development through agents that combine LLMs with open-source compilers, but engineering physical systems requires the combination of LLMs with a physics compiler that grounds hardware designs in physical laws," said Dr. Viral B. Shah, CEO and co-founder of JuliaHub. "Dyad 3.0 brings agentic AI directly into the engineering workflow by combining autonomous agents, a multi-physics compiler, high-fidelity simulation, SciML, and enterprise deployment capabilities into one seamless environment. It gives engineers the leverage of AI while preserving the rigor, safety, and verification that physical systems demand."

An AI Partner for Engineering Teams

Engineering teams designing aircraft, EVs, semiconductors, utilities, HVAC systems, medical devices, and other complex industrial systems face a common constraint: innovation cycles are increasingly fast, but validated engineering models remain difficult, manual, and time-intensive to build.

With Dyad 3.0, engineers can provide a requirements document, a prior generation design, historical test data, and a plain-language request. Dyad agents can assemble the model, explore thousands of

variations, enforce physical and safety constraints, surface trade-offs in plain language, and produce validated code ready for hardware deployment.

The engineer remains the decision-maker â?? setting direction, evaluating trade-offs, and approving final designs â?? while Dyad automates the repetitive work of model construction, controller tuning, simulation execution, and toolchain integration.

Closing the AI Adoption Gap in Engineering

AI adoption has accelerated in software development, but physical engineering has lagged because the work is governed by physics, safety, and verification requirements. General-purpose language models can assist with analysis or documentation, but they cannot reliably validate how a physical system will behave under real-world constraints.

Dyad was built to close that gap. By combining autonomous agents with physics-based simulation and Scientific Machine Learning (SciML), Dyad converts AI assistance into validated engineering productivity. The result is an AI-native workflow that can reason from requirements, simulation models, operational data, and prior designs, while enforcing physics throughout the process.

What Is New in Dyad 3.0

Business Impact for Engineering Leaders

Proof from the Field

Customers and partners featured during the Dyad 3.0 launch event demonstrate how agentic simulation is already being applied across industrial and regulated engineering environments:

A New Category: Agentic Simulation

Dyad 3.0 positions JuliaHub at the intersection of AI agents and physics-based engineering. Pure software agents can accelerate tasks, but lack the simulation substrate needed for physical validation. Legacy simulation tools provide depth, but were not built around autonomous, natural-language, agentic workflows. Dyad combines both â?? autonomous agents, physics-based simulation, SciML, and enterprise-ready deployment, to bring AI leverage to the engineering teams building the physical world.

Availability

Dyad 3.0 is available from JuliaHub. Engineering leaders can view the launch demonstration, explore the featured customer stories, or request an enterprise evaluation.

About JuliaHub

JuliaHub, formerly Julia Computing, was founded in 2015 by the four co-creators of Julia â?? Dr. Viral Shah, Prof. Alan Edelman, Dr. Jeff Bezanson, and Stefan Karpinski â?? together with Deepak Vinchhi and Keno Fischer. Julia is a high-productivity language for scientific computing used by over 1,000,000 users, with more than 10,000 companies and more than 1,500 universities. Juliaâ??s creators have won the James H. Wilkinson Prize for Numerical Software and the Sidney Fernbach Award.

About Dyad

Dyad is an AI-native systems simulation product that accelerates hardware engineering in industrial verticals. Built on the Julia programming language, Dyad helps teams create validated, reliable models through agentic commands while enforcing physics at every step. Dyad includes built-in capabilities to bring data and machine learning into scientific models.

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