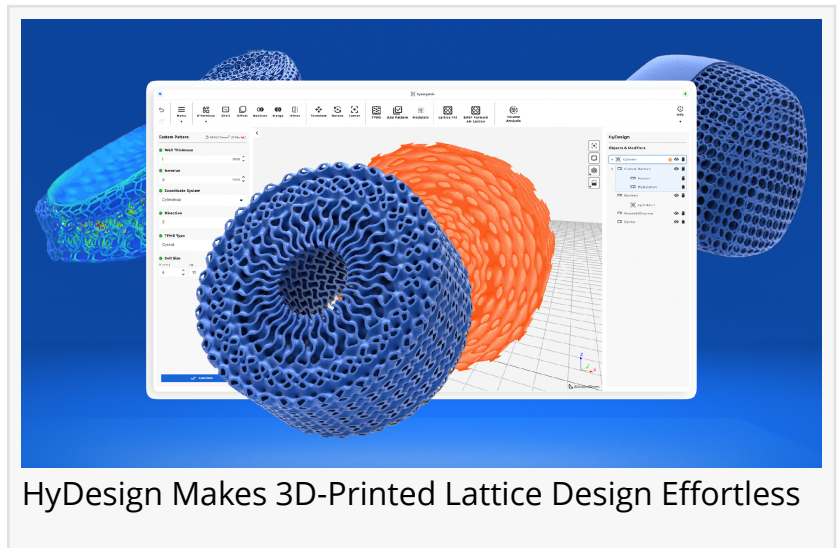


Hyperganic Launches HyDesign: Democratizing 3D-Printed Lattice Design

A design application that makes designing 3D-printed latticed parts easy, fast, and cost-effective for industrial designers, application engineers, and OEMs.

SINGAPORE, SINGAPORE, July 25, 2024 /EINPresswire.com/ -- Hyperganic, a pioneer in algorithmic engineering software, unveils HyDesign, a new cloud-native design application for creating 3D-printed lattice structures.

This innovative tool makes designing lattice-based products easy, fast, and cost-effective for industrial designers, application engineers, and OEMs exploring cutting-edge uses of 3D printing.



HyDesign Makes 3D-Printed Lattice Design Effortless

“

HyDesign eliminates trial-and-error by accelerating the design process with design flexibility, validated materials, and simulation, all in an app that takes minutes to learn.”

Michael Robinson

The Ultrasim® 3D Lattice Library by Forward AM is directly embedded into the software, leveraging the full potential of superior lattice structures in a matter of minutes. This integration will replace the standalone version of the Ultrasim® 3D Lattice Engine, further streamlining the design process within HyDesign.

HyDesign addresses key challenges in 3D-printed lattice design by:

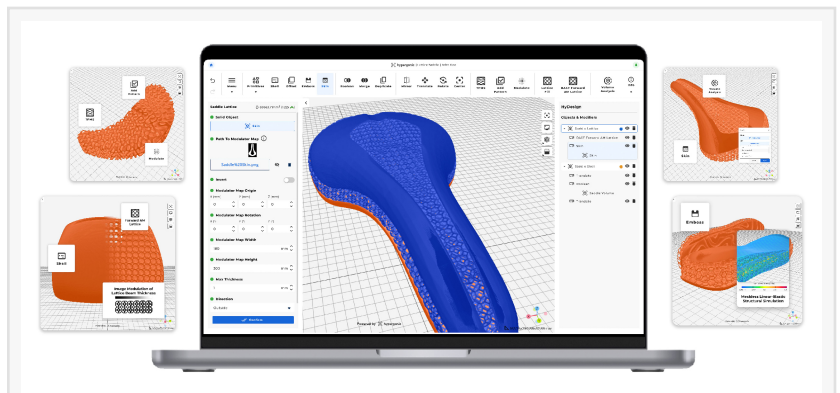
- Simplifying the overwhelming options for lattice designs, materials, and printers.
- Eliminating the need for expert designers and high-performance computing hardware.
- Minimizing costly and time-consuming trial prints.
- Accelerating the design process with validated materials and meshless simulation, which is currently a beta feature.

"Developing products for 3D printing has traditionally been costly trial-and-error," said Michael Robinson, Managing Director and CTO of Hyperganic. "HyDesign changes this by accelerating the

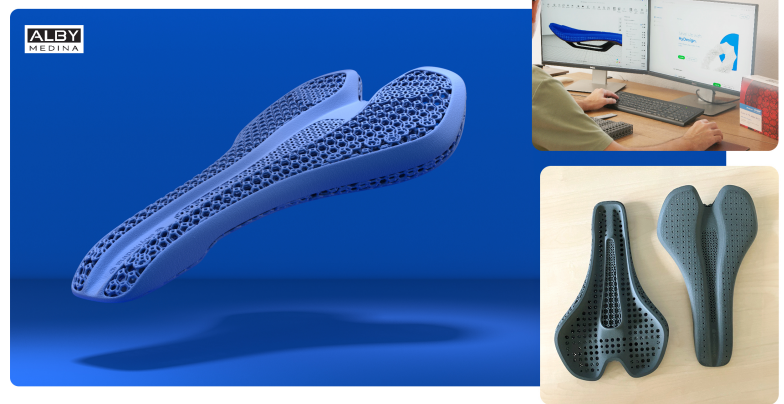
design process with design flexibility, validated materials, and simulation, all in an app that takes minutes to learn."

Key Features and Benefits

- Create and customize lattice structures instantly. Generate designs in seconds and export as standard file formats such as STL or 3MF in minutes.
- Access validated materials from the Ultrasim® 3D Lattice Library by Forward AM, reducing material validation time in developing footwear, seating and protection applications.
- Currently a beta feature, meshless simulation helps further reduce trial-and-error efforts, achieving results within 5% deviation from industry-standard purpose-built simulation packages.
- Design directly in your browser without specialized hardware - Achieve stunning aesthetics, ultra-lightweight structures, and superior pressure management in your lattice designs.



Powerful functions in a familiar user interface



HyDesign used by David Medina to design ergonomic lattice saddle

Partnership with Forward AM

Forward AM's Ultrasim® 3D Lattice Library offers curated, tailored lattices that accelerate product development and eliminate guesswork in functional 3D-printed structures. Built on decades of material science expertise and rigorous testing, the library provides optimal combinations of lattice designs, materials, and printers, tested and used across industries such as footwear, seating, and protection. It currently includes printer-material pairings like Ultrasint® TPU 01 for HP's Multi-Jet Fusion (MJF5200) and TPU 88A for Farsoon's HT252.

Martin Back, CEO and Managing Director of Forward AM, states, "The Ultrasim® 3D Lattice Library represents a significant leap in designing for [additive manufacturing](#). By combining our materials expertise with Hyperganic's technology, we're not just optimizing products – we're reshaping entire industries and accelerating innovation cycles across the board."

While integrated into HyDesign, the library remains freely accessible on Forward AM's website, offering detailed technical specifications for designers and engineers.

Success Story

David Alby Medina, an automotive 3D designer and former road cyclist, used HyDesign to create an ergonomic bike saddle, overcoming four years of trial-and-error with traditional 3D modeling.

"One of the features that I love about HyDesign is that I don't have to take care of doing highly demanding computing operations on my computer. All the re-meshing operations are done on the cloud," Medina noted. The full-size saddle design was generated in seconds and exported in minutes, showcasing HyDesign's speed.

Competitive Edge

Unlike existing latticing tools that are complex to use, HyDesign offers an intuitive interface that doesn't require extensive hardware or expertise. As Medina states, "HyDesign is far more user-friendly and doesn't demand tremendous hardware resources."

Future Developments

Since the Ultrasim® 3D Lattice Engine has been further developed and replaced by HyDesign, Hyperganic is already working on additional improvements. These include upcoming features like thermal simulation, computational fluid dynamics simulation and parametric optimization. Such features further empower designers and engineers to solve tougher challenges and optimize industrial parts such as fluid heat exchangers. The company's vision for HyDesign is an easy-to-use, unified, design-simulate-optimize loop for product design and optimization.

HyDesign is now commercially available with a 14-day free trial, with simulation available as a beta feature. Experience effortless lattice design and start your free trial today at <https://hyd.sg/hydesignlaunch>.

About Hyperganic:

Hyperganic is a software startup pioneering innovative solutions for additive manufacturing with algorithmic engineering software. With a mission to catalyze change in engineering innovation for a sustainable future, Hyperganic leverages its proprietary technologies to create parts and products that are more complex, functional, and impactful than ever before.

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About Forward AM Technologies, formerly BASF Forward AM or BASF 3D Printing Solutions:

Forward AM is headquartered in Heidelberg, Germany with offices located in the United States, France, the Netherlands and China. It focuses on developing and expanding advanced materials and system services for 3D printing by building on BASF's almost 160-year legacy of excellence.

Forward AM cooperates closely with the global AM community through collaborative partnerships with large companies within industrial and automotive manufacturing as well as the consumer goods and medical industries. These integral relationships have resulted in the increased utilization of innovative materials and cutting-edge technologies to change the landscape of industrial manufacturing. For further information please visit: www.forward-am.com

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