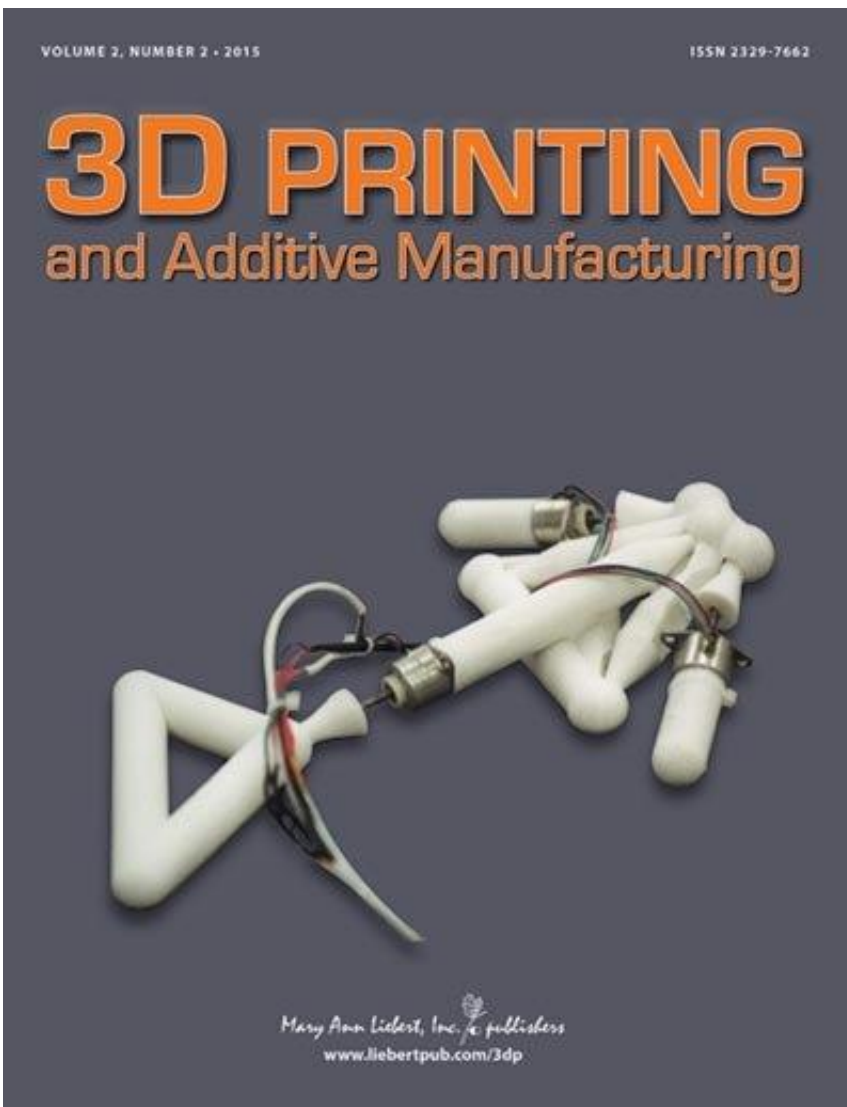


# Molten glass 3-D printer produces optically transparent glass

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Credit: Mary Ann Liebert, Inc., publishers

A new additive manufacturing technique uses an innovative process for printing molten glass at sufficiently high temperatures, layering it to produce strong 3D-printed glass objects able to transmit light. The modular, scalable printer, combined with a Computer-Assisted Design (CAD) printing process, makes it possible to tailor the size, shape, and properties of the printed glass parts, as described in an article in *3D Printing and Additive Manufacturing*.

In "[Additive Manufacturing of Optically Transparent Glass](#)", Neri Oxman, John Klein (Massachusetts Institute of Technology, MIT, Cambridge, MA, and coauthors from MIT, University of Padova, Italy, and Harvard University (Cambridge, MA), and The Pennsylvania State University, University Park, provide a detailed description of the material extrusion printer and how they can modify process parameters such as temperature, layer height, and feed rate to customize characteristics of the 3D-printed glass. The authors also explored and defined methods, geometric constraints, and the introduction of various colors into the current process. High-performing 3D-printed glass could have high-value applications in various industries, such as the aerospace sector.

"3D-printed glass is a beautifully elegant achievement and a significant technological advance for the field," says Editor-in-Chief Skylar Tibbits, Director, Self-Assembly Lab, MIT and Founder & Principal, SJET LLC.

**More information:** The article is available free on the [3D Printing and Additive Manufacturing](#) website until September 25, 2015.

Provided by Mary Ann Liebert, Inc

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