



Joris Laarman Lab: Bits and Crafts is on display at the [Friedman Benda](#) gallery in New York, until June 14.

# The First 3-D Printed Metal Furniture Is Here

AUTODESK AND DUTCH DESIGNER JORIS LAARMAN DEVELOPED THE FIRST AFFORDABLE TECHNIQUE FOR 3-D PRINTING METAL.

Earlier this year, we wrote about a groundbreaking new technique called MX3D-Metal. Developed by Dutch designer Joris Laarman and backed by Autodesk, MX3D-Metal makes it possible--for the first time--to affordably 3-D print metal structures. It's an exciting prospect, given the possibilities: Metal, after all, plays a key role in the infrastructure of buildings and cars.

At the time, the MX3D-Metal produced results that were rough around the edges: it resembled a giant welding machine spitting out wrought iron. But on display now, at the Friedman Benda gallery in New York, are elegant sculptures manufactured with the technique. The centerpiece of the show, the Dragon Bench, is an undulating structure made of woven metal strips. (It looks like an Escher drawing come to life.)

Rhodes, Margaret. "The First 3-D Printed Metal is Here." *Fast Company*, May 15, 2014

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“I wanted to create a large sculptural work in order to show [MX3D-Metal’s] capabilities,” Laarman tells Co.Design. “The organically shaped mesh creates a nice contour, but is an open construction at the same time.” Perhaps what’s most remarkable is how Laarman achieved those curves during such an early stage of the new 3-D printed metal technique. By comparison, it took Herman Miller decades to figure out how to create the deep curve of their trademark shell chair in plywood (which is why they first designed it in plastic).



Laarman insists the Dragon Bench is merely a harbinger of what’s to come. “It shows what we can do right now,” he asserts, and suggests that much more will follow. Laarman experiments with digital fabrication design in myriad ways, so also on display are some of his other works: the first chairs to be 3-D printed in polyurethane (an organic, foam-like material), and the open-source Maker chair and table.

The blueprints for the Maker chairs--which are actually built from several tiled parts that click together like a puzzle--will soon be available online. Anyone will be able to download and 3-D print the pieces for less than \$50. By making the chair so accessible, Laarman's taking a step towards getting algorithm-crafted furniture in the home--something [Autodesk is investing in](#) as well.

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