

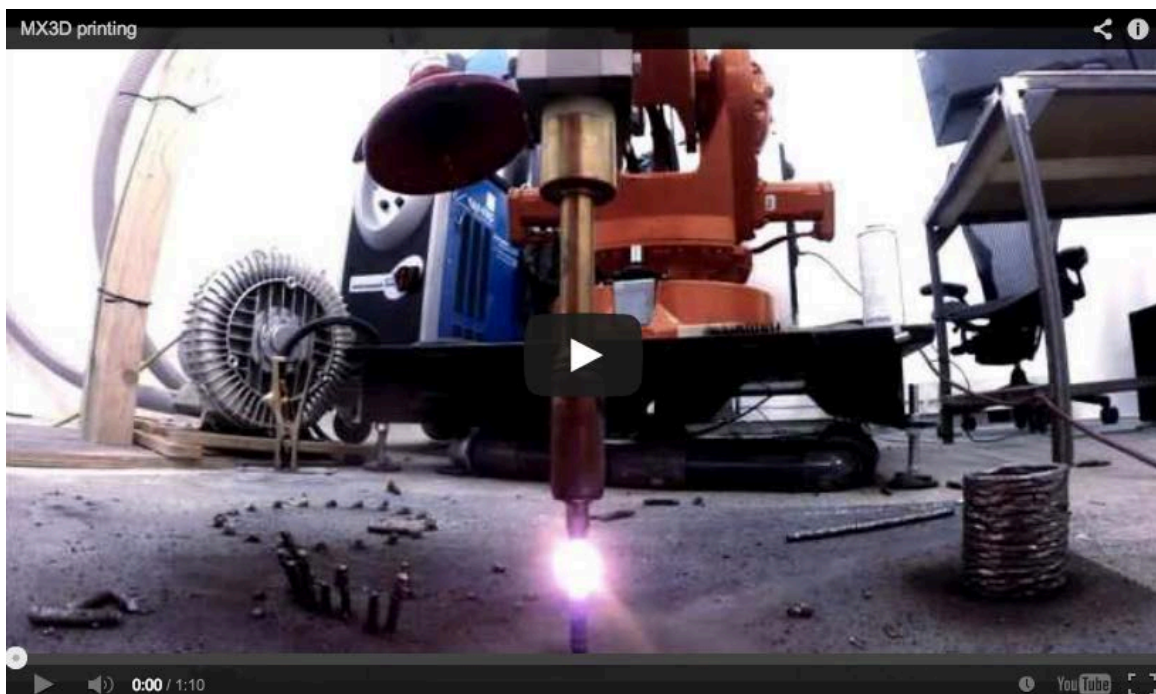
3D printing welder by joris laarman creates gravity-defying sculptures

metal 3D printer by joris laarman lab creates gravity-defying sculptures
all images courtesy joris laarman lab

similar to the technique used for the robotic MX3D-resin printing additive manufacturing process, joris laarman lab has presented the 'MX3D metal printer', an advanced welding machine capable of printing with metals, such as steel, stainless steel, aluminum, bronze or copper without the need for support-structures. like with the resin prototype, the multiple axis 3D printing tool allows for creating 3D objects on any given working surface independently of its inclination and smoothness; by adding small amounts of molten metal at a time, the device can print lines in mid air. laarman will exhibit the first work he has created with the new technology at **friedman benda**, new york, from may 1st – june 7th, 2014.

Caula, Rodrigo. "3D Printing Welder by Joris Laarman Creates Gravity-Defying Sculptures," *Designboom*. February 21, 2014.

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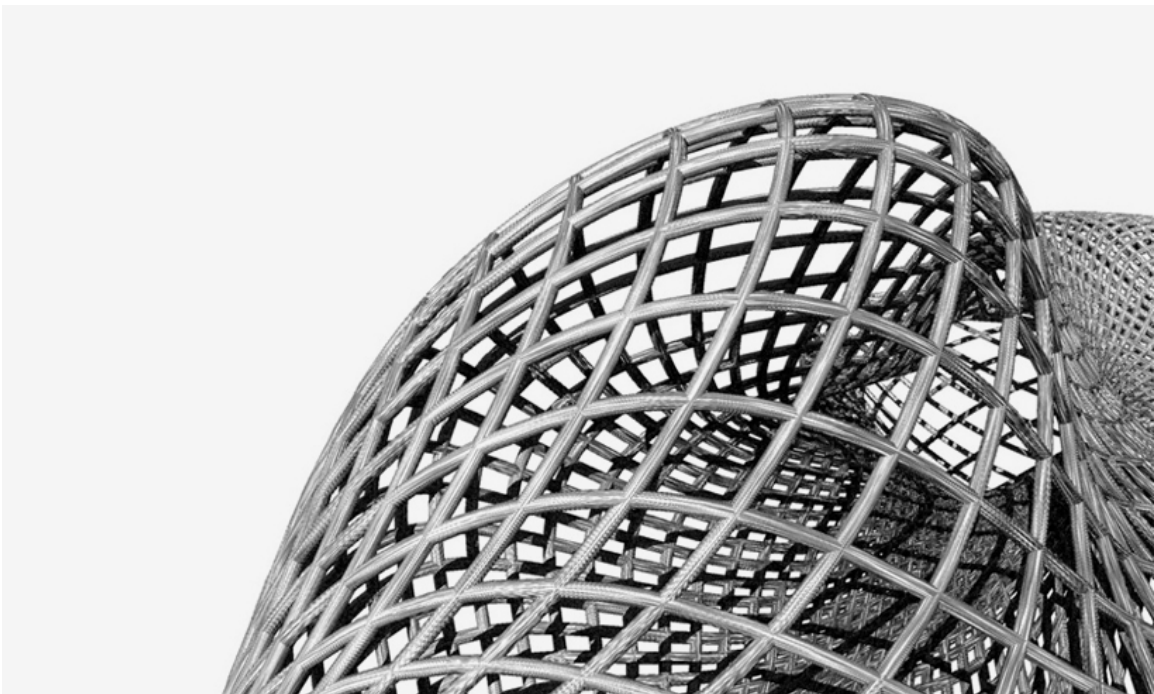


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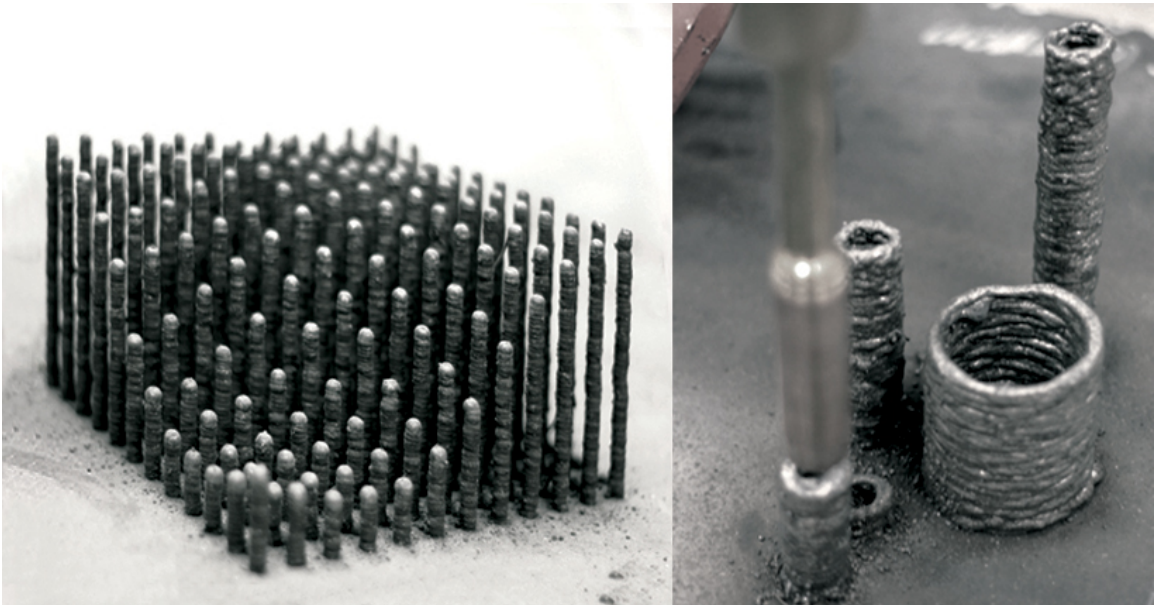
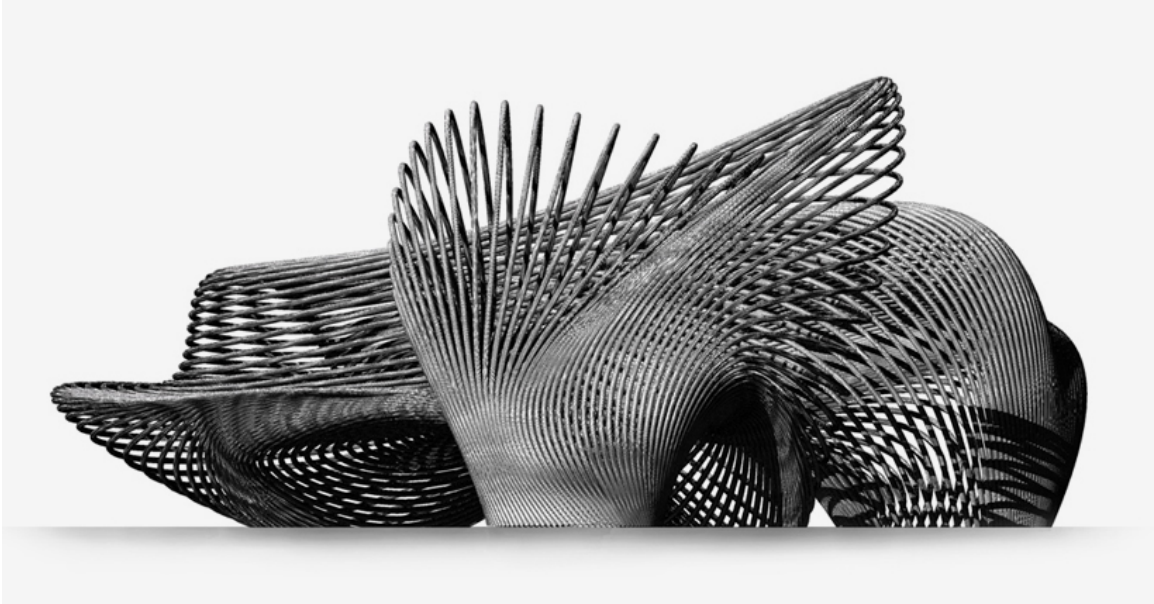


the combination robot/welding is driven by different types of software that work closely together. different kinds of 3D printable vertical, horizontal or spiraling lines can be achieved, but require different settings, such as pulse time, pause-time, layer height or tool orientation.



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