

■ 4 AXYZ MAKING CUSTOMIZED FURNITURE WITH 3D PRINTING TECHNOLOGY

The grand promise of the 3D printing revolution has always been that one day we'd all have access to customizable products which could be made on an industrial, mass-produced scale.

After 25 years of refinements, that promise may finally be coming true.

Until very recently, the scope and scale of products made by additive manufacturing processes were limited by the size of the item in question and the materials from which they could be made cost effectively. But now a diverse group of pioneers are working on methods of rethinking and re-making large consumer items in bulk – but with a twist.

Samir Shah of 4 AXYZ, both an architect and interior designer, aims to be on that leading edge. He takes on his duties as the CEO and founder of 4 AXYZ, and acts as a consultant to the furniture industry and to the factory he sold before emigrating to Canada from India.

Shah is now focused on refining a new process for the additive manufacture of furniture from solid wood, and perhaps of equal importance, using on demand digital distribution to shake up the industry.

4 AXYZ's printing method involves adapting an existing German woodworking machine to operate in 3D. It works by combining small, uniformly cut pieces of wood. Shah actually prefers to put the manufacturing technique under the broader term of "additive manufacturing," as there is at no point any liquid "ink" involved, as is generally the case in 3D printing.

4 AXYZ plans to use the 3D printing process to change the way furniture is made. According to Shah, the realization came to him that additive manufacturing processes seemed to be ready to put into place in a production environment.

The final product has the texture, the grains and color you would expect of any other wood furniture. The process stabilize the raw material to a very high degree and apply a regenerative process with specialized glues to recreate wood. Strength and characteristics of wood are retained and augmented along the way, which in turn save other costs. The saving of material, minimized transportation and distribution costs are controlled between the first conversion and its reconversion to the final form.

4 AXYZ could print smart wood studded with sensors. A smart railing could detect when peoples go up or downstairs and switch off lights on turn on heat. Smart floors could detect when a stranger enters a home and alert its owners or authorities.

Additive Manufacturing of intelligent wood is technology that can enable other great innovations.

You can design in the confort of your studio in any corner of the world and market your design globally. Ship your CAD file via the internet, not the objects. Let 4 AXYZ turn your designs into reality for your customers.

Digital Distribution allows you to sell globally without making, packing, or shipping the objects.



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