

■ SELF-ASSEMBLED WOOD PANELS: RTA FURNITURE THAT DOES THE WORK?

CAMBRIDGE, MA – A research team at MIT is developing programmable wood panels capable of assembling themselves into furniture pieces and other 3D structures. Led by director Skylar Tibbits, a Research Scientist in MIT's Department of Architecture, the Self-Assembly Lab aims to re-imagine construction, manufacturing, product assembly and performance through programmable material technologies.

The wood panels developed by Tibbits and the research team, in partnership with Autodesk, are created with a compound of specialized plastic filaments and wood fibers, and arranged into specific patterns with a fused-deposition printer similar to a MakerBot.

When the panels absorb moisture and the wood fibers expand, the printed patterns direct their movements.

Tibbits says the self-assembly phenomenon can be utilized for self-constructing and manufacturing systems at nearly every scale.

"If we look at construction and manufacturing, there's major inefficiencies, energy consumption and excessive labor techniques", Tibbits explained while presenting at a TED conference in February 2013.

The Self-Assembly research team plans to enable breakthroughs in applications such as software, manufacturing, infrastructure, construction and space exploration.

WIRED suggests the design could revolutionize flat-pack furniture, sparing consumers from Allen wrench related frustration.



Source: <http://www.woodworkingnetwork.com/production-woodworking/wood-panel-processing/>

■ DELCAM TO SHOW KUKA POWERMILL ROBOTS AT LIGNA 2015

Delcam GmbH will demonstrate the potential applications in the woodworking industry for machining with robots on stand C09 in Hall 12 at the LIGNA exhibition to be held in Hannover from 11th to 15th May. Live machining demonstrations will be shown on the stand using a KUKA robot programmed with the new release of Delcam's PowerMILL Robot software for the programming of robots for multi-axis machining operations.

PowerMILL Robot makes it as easy to program a robot for machining as it is to program a five-axis machine tool. As a fully-associated application inside PowerMILL, users have access to all the multi-axis machining strategies within PowerMILL and can use all the system's project management options to manage, store and retrieve data. The 2015 release of the software enables manual and CNC programming to be combined in a single program so providing the maximum programming flexibility. Other enhancements include improved collision checking, automatic avoidance of wrist singularities and the ability to generate robot programs from tape files produced in other CAM software.



Source: <http://www.woodworkingnetwork.com/production-woodworking/woodworking-machinery-technology/>

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