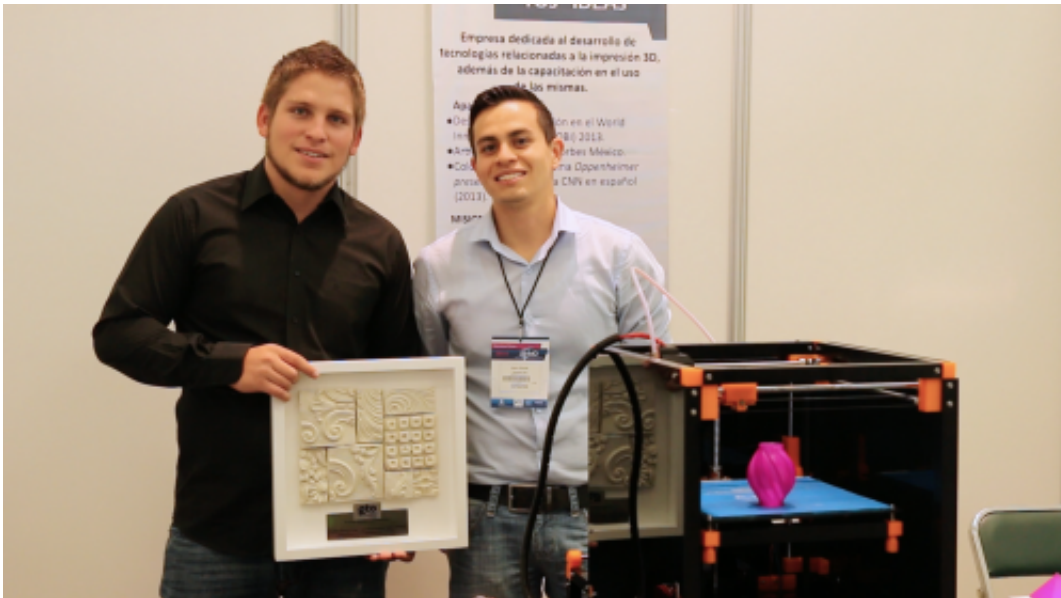


Additive manufacturing technology can print using plastic, paste or concrete

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Researchers with printer.

Using different modules, the "3D Modular" can print using several materials like plastic, paste or concrete.

It all started with the needs of an architecture student and the interest of an engineer who, seeing the high cost of manufacturing molds, decided to develop a 3D modular printer which uses polymers (plastic) to generate models for low-cost functional prostheses.

To develop this project, stakeholders from different disciplines and educational institutions created their own company, Maker Mex, which was incubated at the Tecnológico de Monterrey (ITESM), in the Technological Park of León, Guanajuato in the center of México.

The business partners and creators of the concept are Luis Arturo Pacheco, architecture student, and engineer Juan Carlos Orozco. The "3D Modular" printer won the CONCYTEG (Council of Science and Technology of the state of Guanajuato) VII Prize in the category "Technology Innovation of Entrepreneurs", which was awarded in the framework of the International Forum of Innovation Systems for Competitiveness 2014.

So far, the company has developed two Mex Maker prototypes of the 3D printer called Prusa i3 and i3XL, using designs that are available online and modified them according to their needs.

However, "3D Modular" was entirely developed and manufactured in Mexico; customers who approach the company explain their needs and the company researches ways to resolve the request.

Entrepreneurs acknowledge that there are many designs of 3D printers, but the difference of the 3D Modular is that it prints different designs from different materials with a single computer.

This modular equipment has implemented several options for printing, with interchangeable modules. If the project requires printing with multiple materials, only a module is changed; the technology eliminates the need for multiple printers. Hence the concept of a modular 3D [printer](#), which caused a "boom" in that area of the state and other countries.

Among its projects, the company plans to have a Mex Maker module to

print in concrete and metal. At the moment everything is focused on architectural and plastic models.

Provided by Investigación y Desarrollo

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