

## UNI supports Iowa manufacturers with 3D printing

In October, the University of Northern Iowa's [Metal Casting Center](#) installed the largest 3D printer available in North America, making cutting edge technology available to both UNI students and Iowa manufacturers. The printer is located in the Cedar Valley TechWorks building in Waterloo and is intended to become the cornerstone of the proposed Iowa Advanced Manufacturing Center. The purchase was possible thanks to funding from the Iowa Legislature.

The new 3D printer is capable of producing a sand casting mold for solid parts with a volume of more than 13 cubic feet, producing everything from engine cores to axle housings. This rapid casting technology can save Iowa manufacturers months, and even years, in research and prototype development. In the first eight weeks of operation, UNI has been assisting John Deere with a new tractor design, while nine other companies are receiving technical assistance with mold prototypes.

The addition of the printer is also attracting more private funding. Just this week, America Makes, the National Additive Manufacturing Innovation Institute, announced it is awarding UNI's Metal Casting Center an 18-month project to advance the technology of 3D printing materials and develop a model for regional technology service centers. The new funding will allow the university to reduce the investment needed by small and medium companies to participate in this new and exciting technology.

UNI metal casting students are already highly sought after by the foundry industry, and their hands-on experience with this new printer will only make them more attractive job candidates when they graduate.

Here is a list of some of the companies currently served by UNI's Metal Casting Center's 3D printer:

- Deere & Company - Waterloo and Moline R&D Center
- UES - Waverly
- Sivyer Steel - Bettendorf
- Caterpillar - Peoria, Ill.
- Vermeer Manufacturing - Pella
- Viking Pump - Cedar Falls
- Wellman Dynamics Fansteel - Cresco
- SeeBee Foundry - New Hartford
- American Pattern Co. - Cedar Falls

Emerson Process Management - Marshalltown