



Northwest Iowa

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NEWS

RELEASE

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Northwest Iowa Community College Engineering Design Instructor Helps Local Manufacturer

NCC's Engineering Design Instructor, Ryan Steffen, helped local manufacturer, DEMCO, Boyden, IA, by creating a 3D prototype of a part DEMCO was hoping to manufacture. Engineering Design Program graduate Jeremiah Nelson, now a Design Engineer at DEMCO requested NCC's help in creating a 3D Prototype of a second generation EZ Latch. Nelson then brought the prototype with him to China, October 8 – 16, to see if it could be feasibly manufactured.

Nelson, stated, "Having the ability to review and critique a real model the potential manufacturers could touch and feel was an invaluable tool to ensure the end product meets DEMCO specifications. We were able to hand them a complete part and have them fully understand what we wanted manufactured. If pictures are worth a thousand words then 3D prototypes are worth a million!" Nelson continued, "The other thing that was so important is this type of prototype saves weeks of man hours in the development process for the company. Ryan created this model for me in a matter of days. We are hoping to offer this product worldwide to our DEMCO customers by April of 2012."

Nelson is a 2011 graduate of the Engineering Design Program at Northwest Iowa Community College. He said the program met all his expectations and the amount of hands-on training was incredible. "I learned design skills, but along with that I learned machining, 3D Modeling, reverse engineering and more. I learned how to look at something and envision how it is made. The instructors not only present problems to you, they go beyond that, and teach you how to solve the problems for yourself. I had the proper tools to get the job done."

While attending NCC, Nelson was a part of the Engineering Design Team that received a first place award in the National SkillsUSA contest. "I was very involved in SkillsUSA. It added some real design clout to my portfolio and that made me very comfortable walking into the interview for my job." said Nelson.

Steffen commented, "Industry focus has changed from the 2-dimensional realm to the parametric or 3-Dimensional software, such as Solidworks, Inventor and ProE. These software aids in visualization skills, and numerous other engineering tasks, such as checking fits, flat pattern layout for sheet metal, and strength analysis. Steffen continued, "We have added the 3D printer to our curriculum in the Engineering Design Program because it is what industry leaders told us our students needed to know. The printer isn't a traditional paper printer it actually makes a model by "printing" or modeling

a solid object, instead of machining it out of metal. It has low setup time, and doesn't have to switch tooling, whereas if machined the setup cost and tooling cost would be much greater. It is pretty much a hands-free process. The printer has a work envelope of 1 cubic foot, and holds fairly tight tolerances."

If you want to see a 3D Modeling Printer at work or learn more about the Engineering Design Program at NCC: call 324-5061, 800-352-4907; email studentservices@nwicc.edu; text THUNDER to 82942; or visit our website at www.nwicc.edu. At NCC There's a Place For You!