

KI partners with Denmark High School students to solve a problem

Denmark students' solution makes assembly of chairs simpler, safer and cheaper



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DENMARK, Wis. (WBAY) – Local high school students designed and built a machine that will be used in production by one of the world’s largest office furniture manufacturers.

Two years ago, representatives from KI approached Denmark High School’s technology education and engineering teacher with an office chair assembly problem — and a proposition for students to solve it.

“They were having problem putting wheels on their blade bases, and I gave my students a couple bases and some wheels and said, ‘Go,’” teacher Kory Frederickson recalls.

“They built three prototypes,” KI manufacturing engineer John Buyarski continues. “We came and reviewed the prototypes, and went over the pros and cons of all the prototypes with it, and essentially took the good ideas from all three prototypes and combined it into one.”

The students’ solution, a blade-based caster press, allows for the assembly of chairs to be simpler, safer and more cost-effective.

“I was definitely nervous. I’m like, I don’t know how we’re going, how do we build something for KI? And I guess we did,” Denmark High School senior Derek Schultz says.

“It’s nice to be able to work with them because they’re not entrenched in industry like we are, so you get some fresh ideas,” Buyarski says, “ideas that I wouldn’t have necessarily come up, with so it was very worthwhile for KI to work with the students.”

Fredrickson says the project for KI offered students a tremendous lesson in team work, critical thinking and how to share and accept ideas.

With the help of KI engineers, the students also trimmed the cost of the machine in half, down to \$10,000.

“I told my students that we’re probably the only school in the entire United States that is building a piece of equipment that’s going to go on the floor of a manufacturing company,” Frederickson says.

“This is something we’ll be able to use, and ultimately my hope is that this is the start of something in Northeast Wisconsin that other companies will follow this path and partner with their school systems as well,” Andy Bushmaker, KI senior human resources manager, said.