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ST. PAUL, Minn. -- Cash-strapped school districts struggle to come up with ever-changing demands for technology education. Increasingly, schools are developing partnerships to meet the demand.

Saint Paul Public Schools is working with the [Kitty Andersen Youth Science Center](#) at the Science Museum of Minnesota, and Saint Paul College to bring a high level engineering program to students at Saint Paul public high schools.

Students interview and are actually hired by the Science Museum for the Invention Crew, which this year wrote and won a grant for a project they've designed and built.

"It's a portable device that will help those with mobility impairments get on to and out of canoes," says Dan Haeg of the Science Museum.

"We've done some design work on this problem," says Blue Sky Designs Dianne Goodwin.

"But when Dan came to me and asked me for a significant problem that his team could work on, this was one of the problems I introduced to the team," says Goodwin.

The team works on the Saint Paul College campus. They've split into groups to handle the very different parts they've had to pull together for the project.

"We had the simulator group, we had the actual pulley group," says Alejandra Garcia, a senior at Harding High School.

"We had to build a dock because we had to have that height. The chair was really important because someone with a disability has to have a really comfortable chair," says Garcia, who is working on a series of ropes the canoe can rest on to mimic water.

"Since we can't have the canoe in a body of water in here, we have to find a way to simulate it so it's exactly like water," says Allen Yang, a sophomore at Johnson High School.

It's a project with a lot of moving parts, and it was all designed by the students using professional grade equipment.

"They would not usually let this kind of equipment in public schools for safety reasons," says Harding High School sophomore Abdi Dirie, "but we are permitted to use it here as part of our job.

And jobs are where these students appear to be headed.

Gao Houa Moua is a Harding High School senior with a scholarship to the University of Minnesota's Institute of Technology.

"Before I came (to Invention Crew) I didn't really know what engineering was," says Moua. "I was really

into science and invention, and so then once I started, it got me really into this, especially because it's really hands on."

Hands on with lots of problems to solve.

"And you have to figure out a new way to make it work. It is frustrating," says Gao Thao who is a senior at Johnson High School.

As students test out a new winch, they discover they need to remake a part. But they also find their chair and pulley system works just about how they wanted it to.

"Success!" says Yang as the team claps and then gathers around laptops to continue perfecting their work.

In June, the Invention Crew heads to Massachusetts Institute of Technology to present it's work to other engineers and peer reviewers.

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