

Manufacturing Innovation Challenge

EXPLORE
THE NEW MANUFACTURING

The Manufacturing Innovation Challenge (MIC) was created by Catalyst Connection in 2002. The purpose of the program is to team students with local manufacturing companies to solve real-world hands-on problems with innovative solutions. This program generates excitement about manufacturing career opportunities in Southwestern Pennsylvania.

Learn more about the program by watching this video:

<https://bit.ly/2Hi7Jcm>

Since the start of the program more than 2,600 students have had the opportunity to participate and received the following benefits:

- Gained knowledge about industry materials, equipment, and processes
- Demonstrated the application of 21st century skills
- Explored STEM careers!

The companies who have participated in the program have identified receiving the following benefits:

- Fresh perspectives and innovative ideas
- Time and cost savings
- Build community relationships
- Talent recruitment

Program Steps:

1. Catalyst partners a school with a company
2. Company identifies a project for the students to take on
3. Project planning meeting with teacher, company, and program coordinator
4. Students tour the company
5. Students work on project at school for set amount of time
6. Students formally present their solutions to the company

For more info visit: www.explorenewmfg.com
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Success Stories

Company: Ace Wire Spring and Form
School: Hampton High School

Project Summary: Students were asked to research whether or not the company should enter into the production and sale of titanium springs.

Project Outcomes: The students researched the uses of titanium springs in the market place, the growth potential of those markets, other manufacturers that made such springs, the geographic location of those competitors, and the manufacturing capabilities at Ace Wire Spring. The team recommended that the company should enter that market and the company now does so.

Company: All-Clad Metalcrafters
School: South Fayette High School

Project Summary: Over the years, students have worked on a wide variety of manufacturing projects ranging from new product development, process improvements, fire mitigation, quality improvement, product refurbishment, and marketing.

Project Outcomes: The program started with a team of 10 students over 10 years ago and has grown to over 30 students a year involved in projects in a stand alone project-based elective class. South Fayette now partners with other school districts on projects. The company has implemented numerous of the ideas from the student teams.

Company: EPD Electronics
School: Burrell High School

Project Summary: Students were asked to repurpose a 3D printer and small robot that were not being utilized by the company.

Project Outcomes: The students researched the use of the equipment, how to get it to be functional, and the potential uses of the technology in the company's manufacturing environment. Burrell and EPD have done multiple past projects together and have built a strong working relationship.

Company: Rivers of Steel
School: City Charter High School

Project Summary: Students were asked to research potential ideas for new products that could be sold in the gift shops of the Bost Building museum or Carrie Furnace historical site.

Project Outcomes: The team of students surveyed their peers about the types of things they would purchase at a museum gift shop, designed products using CAD software, and analyzed cost to produce and price to sell the products.

None of this would be possible without our gracious sponsor:

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