Synopsis:
The Young Manufacturers Academy introduces middle grade students to all facets of the manufacturing industry through hands-on activities and simulation-based learning, travel to industry locations for on-site interaction with manufacturers, and a mock Career Fair capstone event.

Students engage in realistic manufacturing workplace scenarios that introduce them to leadership, problem-solving, critical thinking, efficiency, competition, collaboration, customer service, and other skills needed for success in the global economy.

Students compile a portfolio of completed engineering and manufacturing projects involving parachutes, bridges, futuristic cars, robot programs, and carnival rides.
In response to an alarming drop in manufacturing program enrollment rates at the state’s technical high schools, the Connecticut Center for Advanced Technology, Inc. (CCAT), the organization leading Connecticut Dream It. Do It., developed the Young Manufacturers Academy (YMA).

“BEFORE THIS PROGRAM, ... I STILL THOUGHT [MANUFACTURING] WAS BACK WHEN PEOPLE WORKED IN DARK FACTORIES FOR TWELVE HOURS EACH DAY IN AWFUL HEAT. AND NOW, I CAN GLADLY SAY THAT I WAS REALLY WRONG ABOUT THAT.”

YMA was designed to encourage young students to consider pursuing an educational pathway at a technical high school and selecting a precision manufacturing career choice. Part of the strategy was to not only engage the students but also their families, increasing awareness of how manufacturing jobs support a strong economy in Connecticut.

YMA introduces young students to all facets of the manufacturing industry through hands-on activities and simulation-based learning, travel to industry locations for on-site interaction with manufacturers, and a mock Career Fair capstone event. Students’ families are invited to this event, as parent encouragement and support is a critical component in the decision-making processes about education and career choices.

Students engage in realistic manufacturing workplace scenarios that introduce them to leadership, problem-solving, critical thinking, efficiency, competition, collaboration, customer service, and other skills needed for success in the global economy. They produce innovative designs that meet stringent criteria involving carefully considered tradeoffs within provided constraints. They pay for equipment, supplies, and labor from provided budgets. They manufacture products by hand, virtually, and with 3D printers. They compete for customers, and find ways to maximize productivity and quality. They interact with manufacturers and engineers with diverse backgrounds working in a variety of positions at a wide range of companies. And, they engage in mock interviews for jobs with real manufacturers. Along the way, students compile a portfolio of completed engineering and manufacturing projects involving parachutes, bridges, futuristic cars, robot programs, and carnival rides.

According to Susan Palisano, Director of Education & Workforce Development at CCAT, YMA has enjoyed considerable success because it provides students with the opportunity to participate in authentic, hands-on experiences. “As a product of this program, students understand that manufacturing jobs are safe, clean, high-wage, high-skill, and fulfilling, and many are now considering careers in this field, fueling the next generation’s skilled workforce pipeline.”

By January of 2014, overall enrollment in manufacturing programs at technical high schools had increased by 26%, with far greater increases at specific program sites and among girls.

Based on the success of the program, The Manufacturing Institute, in partnership with CCAT, was awarded a Motorola Solutions Foundation grant to fund the expansion of YMA and develop a toolkit for the national Dream It. Do It. network.

www.themanufacturinginstitute.org  www.dreamitdoit.com