



# BOTS IQ: Making Manufacturing “Cool”

by Molly West

Ben Prohaska laughs a little as he says, “What would interest a normal teenager more than fighting robots?” Evidentially, the 17-year-old Eastern Westmoreland CTC student is right. Fighting robots are the premise for BotsIQ, which has exploded onto the scene in southwestern Pennsylvania.

When BattleBots aired on cable TV, homemade, remote-controlled robots squared off in competition. It made for good television. Among the avid followers, producers noticed a great number of students who not only enjoyed the show, but wanted to get in on the action. BotsIQ was born. Show creators put together a Robotics Curriculum based on the National Curriculum Standards and Massachusetts Institute of Technology’s (MIT) mechanical engineering methodology; Teacher Training; and a National Competition where students showcase their custom built robots, and compete for top honors.

Deemed “The Smart Sport,” BotsIQ began nationally six years ago. March 28 and 29, 2008 will mark the third competition in southwestern Pennsylvania. With each year, the local competition has **DOUBLED** in size, including more than 30 teams from the region in 2007.

“I joined out of sheer curiosity,” Prohaska says. What he discovered is that this high-tech fun is also a great way to get some really marketable skills. “You learn a lot. You learn things from basic electronics to how to build circuits. You learn everything down to team work.”

While organizers are glad that students are having such a good time building and competing, there’s another level to BotsIQ. The idea became popular with local manufacturers

who are finding that as their workforce ages out, there are fewer and fewer qualified, interested workers to take their place. A committed group of manufacturers and educators work year round to keep interest high in the schools and in the manufacturing community.

Gary Stape is on that committee. He’s the Apprentice and Tooling supervisor at Penn State Tool and Die in North Huntingdon, PA. Not only does Stape give of his time, his

company has put several thousand dollars into resources for the competitions and sponsors a team giving them the materials and technical support they need. “I hope to see a renewed interest in manufacturing as a career and hope that it may spread the word so as to encourage others to pursue it as well,” says Stape.

Penn State Tool and Die is one of many companies getting involved in southwestern PA BotsIQ. For some, that means providing volunteers, for others, financial backing.

Organizers are working to meet an \$85,000 budget in 2008 and are still soliciting support. Already making contributions at the Diamond Level are the National Science Foundation “Advanced Manufacturing in PA” Project, Hamill Manufacturing Company, and Oberg Industries.

With the growing interest in BotsIQ, companies step forward because they anticipate a return on their investment. “Hopefully with Penn State Tool supporting the event, we can attract some of the young mechanical minds to come and work for us in the future. The manufacturing industry as a whole needs a way to get young students interested in a career working with their hands and minds,” says Stape.

*“What would interest a normal teenager more than fighting robots?”*

– Ben Prohaska



In another step to bring manufacturing careers to the forefront, competition organizers added a company expo to this year's events. Area manufacturers will set up displays on the second day of competition (March 29, 2008) at the Century III Mall in West Mifflin, PA. The competitors and hundreds of spectators will have a chance to see first hand what the manufacturing companies of southwestern Pennsylvania do. Some will also have information about positions with their companies.

*"We're involved in BOTS IQ — It's a great way to get students interested in manufacturing."*

*— Robert Steinbock, president, Superbolt, Inc."*

Word about career opportunities is definitely spreading among BotsIQ participants. According to Prohaska, "You're projected into the company's eye. Companies get to see what you can do. They provide the materials, we give them the product. It could lead to a job or company paying for college. Last year, we had two kids that were hired by Kennametal directly connected to their participation in BotsIQ."

A scholarship sounds particularly attractive to Prohaska, a high school senior this year, however, he's focused on his team's "bot" for the time being. Last year, the Eastern Westmoreland CTC entry, "Groundhog," took second place in the regional competition and fourth place nationally. This year? "Of course we hope to take first place," says Prohaska. When asked about the details of their 2008 bot, he simply replies, "It's on the down-low right now," carefully guarding his team's trade secrets. ▼

**Editor's Note:** Molly West is a freelance writer who works with several manufacturing organizations in the Pittsburgh region. She is the owner of Molly West Marketing, a full service marketing and promotion firm and can be reached at [molly@mollywestmarketing.com](mailto:molly@mollywestmarketing.com). For more information about BotsIQ or the upcoming competition, go to: [www.BotsIQpa.org](http://www.BotsIQpa.org) or call Carmen Grosse at 412.258.6668.