



Bring Robotics into your classroom with the DTMA Bots Program!

What is the DTMA Regional Bots Program?

This robotics program, sponsored by the Dayton Tooling and Manufacturing Association (DTMA) and the DTMA Foundation, provides local students an opportunity to develop STEM based skills by working with industry mentors to design and build remote controlled robots that compete in regional and national tournaments. To date 30 schools and over 100 companies and community organizations have participated in this program.

As the program organizer, the DTMA:

- hosts two competitions each year
- recruits and trains teachers to form new teams
- helps match teams with company mentors
- promotes the program to local industry and the community as a whole
- provides financial support for competitions winners to compete in the National Robotics League's national championship

For photos from past competitions, rules and up-to-the minute information about the program please visit our Facebook page! Go to <http://www.dtma.org/career/Bots.html> and click the "Find us on Facebook" icon at the top of the page.

What value will it bring to students?

Overall, this applied engineering approach has a significant "wow" factor for the students and serves as the "hook" that instills a passionate interest in careers in engineering, advanced manufacturing, and technology at the time in their life when they are making career decisions. Our local school partners report that this single project has had more demonstrable results in impacting enrollment than any other government or non-government program known to date.

In other words, this program gives you a great answer to the dreaded question: When am I ever going to use this math and science stuff anyway???

Is Bots appropriate for College bound students?

Absolutely! Bots is just the kind of hands-on activity that colleges are looking for—especially in their engineering students. A recent graduate of Springboro High School put it this way in an e-mail to his physics teacher: "I just wanted to personally thank you . . . for the opportunity that you gave me to work with [Bots] during high school. I know that was the key reason why I was accepted onto the prestigious [Cornell University Autonomous Underwater Vehicle Project Team] and I am so grateful! So if you're recruiting for this season at all, make sure you let them all know what kind of doors this program can open up for them in college."

Who can be a coach?

The coach is ultimately responsible for the students and should be at least 18 years old and affiliated with the school or organization hosting the team. It's helpful if the coach has some technical background—but with the right mentor it's not 100% necessary.



Coaches can be:

- science or engineering teachers
- scout leaders
- home school parents
- members of a school's parent organization
- any adult interested in helping young people explore career opportunities through robot building

Why does DTMA recommend teams have company mentors?

Company mentors help defer the cost of robot building which makes it possible for a wider variety of schools to participate. More importantly, the mentor relationship gives students a chance to observe and often participate in the process of manufacturing their robots in a working manufacturing facility. Ideally, each student who participates in the Bots program will leave with personal, positive impressions of what life is like for people who work in the advanced manufacturing industry.

What's the commitment?

- Each team will attend the competition with a working 15 pound robot. Most teams are able to build their bots in 3 months using in class and/or after school time and spending up to \$1000. The expense of the robot is usually shared with the team's mentor.
- Each team will follow the technical guidelines, including a safety inspection, as listed on the DTMA website.
- Each team will provide documentation on how they built their robot.
- Each team will pay a \$25 entrance fee for the competition, due three weeks before the competition.

What kind of support is available for me and my team?

We are here to help you! Once you decide to form a team, we will:

- help you find a company mentor
- schedule a teacher training session at a time that works for you
- provide opportunities for you to connect with other coaches and teams

If you get stuck or have a question, you can always call or e-mail the DTMA office and we'll work with you to find the answer.

Where can I see this program in action?

The best way to get to know the Bots program is to attend the competition. Email Maureen@dtma.org for more information.

I'm interested, what do I do now?

All you need to do is e-mail Maureen@dtma.org and let her know of your interest. After that you will be informed of upcoming info sessions, teacher training events, and competitions—everything you need to wade into the program slowly or jump in with both feet!