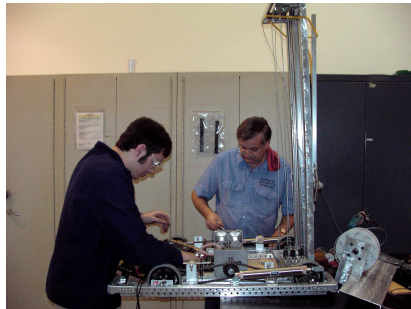




## Rochester Adams High School Rochester Hills, Michigan Team 245 – Adam-bots 2005 Chairman's Award Nomination

The Rochester Adams Adam-bots team has been in existence for six years. Every year we step-it-up another notch in our aim to be a PREMIER USFIRST team. Our mission is to provide an inspiring learning environment that fosters growth and appreciation of math, science, technology, and organization. Our goal is to provide an atmosphere for mentoring and learning opportunities that are not available in the regular classroom. To accomplish this goal, we have developed an outstanding partnership between our



mentors and our students. Most of our mentors do not have students at our school; they are mentors because they have been inspired by the FIRST mission and want to help the student's progress in skills and knowledge. FIRST gives them a change to give something to the students, to share their skills, and to let the students know it is alright to be smart and to have fun doing something they are passionate about. We now have mentors working with the students in project management, team building, group collaboration, marketing, presentation skills, and communications. This is in addition to the mentors who work on the design and build of a robot.

FIRST gives the students a chance to take advantage of an option not normally available to them in school or most other outside activities. Robotics gives them a first-hand experience in a variety of fields including communications, strategizing, programming, building, and animation. Our team takes the hands-on approach very seriously. Although it might be more efficient to have adults do the work we strive to give the students the learning opportunity. The students work in the Siemens machine shop making the parts needed for our robots. The students do the programming to make the robot go where it is supposed to go. The students work on the strategy and decide how to play the game. Our coach on the field is a student. Our team leader and project manager is a student.



FIRST has given our team its soul. This "soul" teaches and inspires us to promote a friendlier, more positive and cooperative attitude, and that you can compete with others in a gracious and professional way. FIRST has helped transform us from a cooperative group to a collaborative group, constantly working to help complete each other instead of competing with each other.

The partnership between our teachers, parents, corporate sponsors and students has helped us all increase our respect and honor of science and technology. Through the FIRST competitions, our team has visited Eastern Michigan, Wayne State, Cleveland State, Northwestern, Grand Valley State, and now Sacramento Universities. These competitions allow us to partner with other teams to work together for a common goal. They let us know that there are thousands of other students also interested in science and technology. They give us a chance to see other unique designs, manufacturing and assembly methods, programming techniques, and team structures. They also let us know that there are many companies and sponsors who are looking for bright, talented, and enthusiastic people in the fields of science and technology. We know there are jobs waiting for us in our fields of passion.

FIRST does accomplish its mission for our team because it has changed the way we regard science and technology. Our current students and alumni are pursuing the real-life rewards and career opportunities in these fields. We have one graduate who received a FIRST scholarship to Wayne State. Our seniors from last year all are in the fields of science and technology at Duke University, Michigan State University, University of Michigan, and Wayne State University. Our current seniors have already been accepted in schools of engineering at major universities. The program is working.

Our pursuit of the Chairman's Honors is an ongoing journey. Each year we reflect on our prior experiences, look at the winning Chairman's teams and then try to bridge the gap to one day earn the top honor in FIRST. We have increased our efforts to promote FIRST in our community by presenting the robot at school functions, elementary schools, boy and Girl Scout meetings, and the take-your-child-to-work day at Siemens. At the end of the 2004 season, we took the FIRST robot to George Washington Carver Academy, in Detroit, to meet with the fifth, sixth, and seventh grade students. Four of our students and an adult mentor spent an hour with them discussing robotics and how a high school team functions. We are inviting them to join us at the Detroit regional this year to again see a competition.

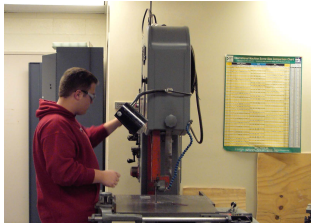
We are also working on our social responsibility and culture by increasing our efforts to give back to the community. We worked the Halloween Hoot and at Dinosaur Hill nature center, served food (purchased from our team fundraising) at Ronald McDonald's house in Detroit, and collected Toys for Tots. We wear our team shirts during these events to let the community know that robotics exists and to let them ask questions about our team.

FIRST also provides an outlet for our team to release stress and let our creativity flow. It teaches students to approach problems systematically. This approach helps the team break down problems into workable sections. It teaches us to think outside the box, to reengineer the box, or to eliminate the box. Robotics gives us a practical way to apply mathematics and science, such as physics, to a real problem where we can see the results. Sometimes the results teach us what not to do, which we've learned can be a lasting learning.

Our pursuit of the Chairman's honors has also turned us into a family. Our family knows how to unite for a common goal during project planning. Like most families, there are differences in personalities and opinions. We work to associate these many different ideas into our robot design and build process to make the best decisions possible. This year we took the best ideas from several design proposals to develop our final concept. Our family met and actively listened to each other with the mentors asking questions, but letting the students decide. We developed this approach by benchmarking with successful FIRST teams. Our mentors their project management skills from their work environments to let us know that this is how the real world works. This strength of partnership and family environment provided the atmosphere where all students felt comfortable expressing their opinions.

Our pursuit of the Chairman's honors has given even more meaning to gracious professionalism. During the Oakland County Competitive Robotics Association Competition, we worked with another team to help them solve a programming problem. We even loaned them our controller, which actually cost us a win. Yet, as gracious professionals, we were happy to help them succeed at our expense at that particular event. We did win the County Championship this year, in both the open event and the women's only event. We also won a best play of the day, judges wards, the GM technical excellence award, and the spirit award. Not a bad start to the season.

We are working to inspire future high school students by helping Lego League teams. This year we mentored two teams from Brewster Elementary school in Michigan. Our team also assisted and helped establish a BEAM robotics class and presented programs in the Industrial Tech classes in the middle school. We also presented a program at the Rochester Hills Public Library. The Rochester School Board and Rochester Hills City Council have recognized the team's contributions and are eagerly awaiting team presentations, scheduled after we ship the FIRST robot.



Our corporate sponsors are inspired by the FIRST message and program. Siemens VDO Corporation's Caring Hands Initiative gives employees a chance to provide fiscal support, experienced mentors and access to their facilities to aid local high school students in their engineering efforts. Paul Slaby, our Siemens' mentor, and his wife Terese, are a big part of our family. They attend many of the team's year-round events and stay in touch with team alumni. This year the General Motor's Finance Staff is also supporting our team. This is part of the General Motors commitment to assist young men and women in learning about science and technology. Rick Drummer, our GM mentor, and his wife Grace, are also a big part of our family. Mrs. Drummer assist is all paperwork, communications, and works with he students on Marketing. Mr. Drummer works with us on budgeting and strategy. The Adam-bots partnership with our corporate sponsors increase every year, not in dollars, but in collaboration to achieve a common goal.



Our team looks forward to the FIRST competitions and the FIRST experience. We are on our journey to be a PREMIER FIRST team and know that some day, with our efforts to continue to step-it-up a notch each year, we will make it.

Besides, FIRST is fun!

