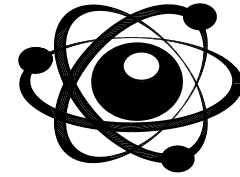


Adambots Team 245 2006 Chairman's Nomination



The students, teachers, mentors and sponsors who make up the Adam-bots are on a race to become a premier FIRST team. During our eight years of existence we have made improvements each year and increased our efforts to inspire greater levels of respect and honor for science and technology in our members and community. Our partnership between Siemens VDO, General Motors, and Adams High School is very strong. Each year we assess our current status against our vision of a premier team, including observation of existing premier teams, to evaluate what additional steps need to be taken to close the gap in a gracious and professional way.

History:

The Adam-bots team has been competing in FIRST for eight years. In our race to success, we had our best year yet in 2005. Although we won two regionals in 2003 we realized we needed to increase our efforts to spread the message and inspire our team members. The results of our increased efforts arrived in several areas. Our efforts to increase team organization, project management, and collaboration showed in our robot design and build, winning two regionals and the Archimedes Division at the Championship event. Our increased efforts to spread the goals and purpose of FIRST, evidenced in our Chairman's Award presentation, resulted in winning our first judges award.

The Adam-bots team has grown from a team with a purpose of "building a robot" to a team that is driving to succeed in our race to be a premier team, in all aspects of FIRST.





We are a year-round team and we compete in the Oakland County Competitive Robotics Association (OCCRA) tournaments in the fall. After the FIRST season in the winter, we then continue with our community efforts, fundraising needed for the fall season, and team building activities. In the summer we have "tech days" at Siemens to work with vision systems, programming, and other robotic skills. Our team building activities include bowling parties, laser tag, and even kicking off this season's road to success with a road rally.

Community:

Our team has been doing community service for the last several years and continues to increase our efforts in this area. When we do these projects, we proudly wear our team shirts to let others know it is a robotics team that is helping. Some of these outreach efforts include: Collecting for Care House and Toys for Tots, serving food at the Ronald McDonald House, and helping with the community Halloween Hoot.

In our school, we display our robot at pep rallies and open houses. This helped hook many new freshman students this year. Some joined us because of the service opportunities, but were soon hooked on the entire FIRST process and are now learning to use machinery and tools.



In our race to reach more members of the community we sponsored and mentored a FLL team in 2005, the TechnoMonkeys. The students and parents of this team are looking forward to next season or to their advancement to the high school robotics team.

At the other end of the spectrum, we are working with the community Older Persons Center (OPC). We had 75 OPC members attend our first presentation and they are anxiously awaiting our return visit, during the FIRST season, when we will build VEX robots to have competitions. We enlisted the help of the Rochester FEDS team 201 to assist in this process so we can have some fun and gracious competitions.

This past year we were presented with an outstanding challenge from the Oakland County Sheriff's department. They had a 17 year old robot, named Sarge, that was having programming problems and was out of date. They asked our team if we could help them



upgrade Sarge and we gladly accepted the challenge. During the summer, when many students take the time off, our team worked at Siemens VDO to give Sarge a makeover, including new programming, a DVD player, and a complete clean-up. We were recognized for this effort by the Sheriff's office and featured in local newspapers.

Our robot and team were recognized by FOX news in their Parent-to-Parent broadcast. This segment covered how parents should get involved in their kids activities. In this particular case, parents were encouraged to have their children join robotics teams to learn valuable skills in a fun environment.

We also took the opportunity to work with several other champion teams to present our robots in game-like situations at Ford Field, the Pontiac Silverdome, and the Rock Financial Convention Center. It was exciting being asked to participate with teams like the HOT Team 67 and Frog Force Team 503. We were asked by FIRST, so that lets us know our reputation as a quality team has increased and we are well on our way in our race to success.



We also spread the message in our education community through several presentations to our school board. We actually demonstrated the robot and our trophies from 2005 at a meeting in May. We were also in attendance when Siemens VDO presented the sponsoring check at a school board meeting. Our school principal was at the meeting along with many parents and supporters.

We are increasing our efforts to spread the message through a letter writing campaign to elected officials, including our state representatives, federal representatives, mayor, governor, and even President Bush himself. Yes, we did invite him to come visit us at Siemens or at our High School to see what the future leaders of technology are working on as part of FIRST.

Mentoring and Sponsors:

Our team has numerous opportunities to practice gracious professionalism through mentoring. We helped mentor the TecnoMonkey's FLL team. Adult mentors are working with the students on project management and Failure Modes Effects Analysis (FMEA). Some adult mentors work with students on marketing, communications, and the Chairman's award. Others work with the students in the machine shop and on the engineering and programming of the robot. The



students reverse mentor the adults and help them in areas where they actually have an upper hand, including programming techniques, physics, and math skills. Using the VEX robots, our team will mentor the OPC members in the spring. In all cases, our race to success gives us a chance to do high quality, well-informed work in a manner that leaves everyone feeling valued.

Our sponsorship by General Motors is valuable from a funding standpoint, but the adult mentoring is much more important. We have mentors from GM working on programming, design and build, project management, machine shop instruction, strategy, and Chairman's.

Our sponsorship by Siemens VDO has been outstanding. They not only act as our primary sponsor, but they give us a place to build and machine, conduct meetings, and feel at home. Their CEO was with us during the Parent-to-Parent television broadcast. They are with us when we display our robot, attend the school board meetings, and even attend non-FIRST events. Our team members work with them on outreach opportunities including Walk for Wishes, Christmas in June, and Paint the Town. We have an outstanding partnership.



What our members and alumni think:

We asked all the members of our team, including the mentors, to give us written responses to a survey on their involvement in FIRST. Here is what some of them said:

"FIRST has made me a more responsible and competent worker. It has shown me the value of planning ahead and setting goals for myself."

"FIRST has made high school fun...in FIRST, you can always apply the Algebra, Geometry, English, CAD, etc."

"FIRST has made me intensely aware of the need to inspire students to become focused technically...students need to look beyond the PC at the mechanical systems and manufacturing tools of technology"

"FIRST means opportunity to me."

Two of our alumni received FIRST engineering scholarships to Wayne State University and the University of Michigan (U of M). We have alumni at prestigious schools like Duke University, University of Michigan, and Michigan State. One student is majoring in animation at the Minneapolis School of Art and Design, partially inspired by his work on the FIRST team. Another student is working on solar cars at the U of M. Yet another student is working with FLL at U of M competitions.

Our programmer, John Dong, has already been accepted at MIT for next year.

Our team captain from last year, Rich Schuster, drives on weekends, from the University of Michigan, to assist the team and mentor the newer students. Another alumnus from last year helped us get the Rochester Hills firehouse for our planning meeting the day after kick-off.

Innovation:

In our race to success, we also look at opportunities to use innovative methods to achieve our destination. We changed our website to a more interactive site where students can collaborate from home.



A senior student, John Dong, developed DeltaForce. DeltaForce is the code name for revolutionary changes in the way Adambots approaches programming. This includes the use of the DeltaForceCoProcessor and the DeltaForceSensorArray. It is designed to allow FIRST robotics teams much greater flexibility and power when programming their robot.

We are using new documentation techniques to compile our history and leave something for new or future teams. This year we used MSProject and FMEA and will build on it next year.

Conclusion:

If you add it all up, the FIRST program has given us the opportunity to meet our mission: To provide an inspiring learning environment that fosters growth and appreciation of math, science, technology, and organization while providing an atmosphere for mentoring and learning opportunities that are not available in the regular classroom. We are on a race to success to and we can see the finish line ahead. The Adambots are well known and respected by many of our peers, mentors, and communities, and by FIRST.