



Adambots Team 245 2007 Chairman's Nomination



The students, teachers, mentors and sponsors of the Adam-bots are on a race to become a premier FIRST team. During our nine years of existence we 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. The 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 and observations of existing premier teams to evaluate additional steps needed to close the gap in a gracious and professional manner.

History:

The Adam-bots team has been in FIRST for nine years. In our race to succeed, our seasons are getting better and better. We won two regional events in 2003 but realized we needed to increase our efforts to spread the message and inspire our team members. The results of our efforts to increase team organization, project management, and collaboration showed in our robot design and build as we won two regional events and the Archimedes Division in 2005. Our increased efforts to spread the vision of FIRST were rewarded as we won the 2006 Chairman's Award in Sacramento. These accomplishments were thrilling, but they were not enough to satisfy the Adam-bot's drive for success. We are committed to winning the Chairman's award at the Championship event!



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; we compete in the Oakland County Competitive Robotics Association (OCCRA) tournaments in the fall, followed by the FIRST season in the winter. After these tournaments, we 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 and laser tag; we even kicked off this season's road to success with our second annual road rally.

Community:

Our team has been doing community service for the last several years and continually increases 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; we are glad to share the FIRST message with all those we serve. Some of these outreach efforts include collecting for Care House and Toys for Tots and supporting the Relay for Life Cancer fundraiser.

In our school, we display our robot at pep rallies and open houses. The excitement we raised for robotics through these rallies helped recruit 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 as well as taking advantage of the other opportunities FIRST presents.

We even supported the Oakland County Sheriff's department by upgrading a 17 year old robot named Sarge. They asked our team if we could help them upgrade Sarge and help fix some programming problems. During the summer of 2005, a rest and relaxation period for many teams, the Adam-bots worked at Siemens VDO to give Sarge a makeover; we added new programming and a DVD player before giving Sarge a complete clean-up. We were featured in local newspapers and recognized by the Sheriff's office for this effort.



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. 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 that FIRST asked us to participate with teams like the HOT Team 67 and Frog Force Team 503. We were honored to know that our reputation as a team has progressed so far, and we know that we are approaching our goal on our race to succeed.





Our commitment to reaching out to the government and involving them has been considerably revved up this year. In the past years we have written to our state and national representatives and senators – even sending a letter to



President Bush asking for a visit to Siemens VDO or our high school. We always take Dean Kamen's "Homework" seriously; this year we have stepped up our letter writing in response to his request, and every team member wrote his/her own letter. Many elected officials responded with good things to say about the FIRST Program. In fact, Congressman Joe Knollenberg was so moved by our letters that he came to visit us at Siemens on February 3rd. School Superintendent Mr. Dave Pruneau joined Representative Knollenberg for a tour of Siemens; we showed them what we had accomplished so far in the build season, shared our award-winning Chairman's Presentation from last year, then invited them to lunch.

As a result of the visit, we are actively working with Mr. Pruneau and our school board to have FIRST Robotics recognized as a "team" worthy of varsity letters. We have arranged another presentation with the school board to promote the FIRST program.

Mentoring and Sponsors:

Our team has numerous opportunities to practice gracious professionalism through mentoring. Adult mentors are working with the students on project management, 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 areas where they actually have an upper hand, including programming techniques, physics, and math skills. 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.



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

Our partnership with Siemens VDO has been outstanding. Not only do they act as our primary sponsor, but they also give us a place to build and machine, conduct meetings, and feel at home. Their CEO was with us during the Parentto-Parent television broadcast. They even attend non-FIRST events, beyond attending other showcases of our team.





Our team members work with them on outreach opportunities including Walk for Wishes, Christmas in June, and Paint the Town. The team has been spotlighted in Siemens international magazines and at other Siemens events. Siemens offers internships to team members over the summer and several students have taken advantage of this opportunity. We are truly grateful for their continued support.

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. This 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."

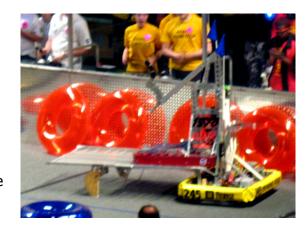
"FIRST has made high school fun...in FIRST, you can always apply the Algebra, Geometry, English, CAD, etc."

"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 MIT. One student is majoring in animation at the Minneapolis School of Art and Design, partially inspired by his work on the FIRST team. One student works on solar cars at U of M, while other students help with FLL competitions on the U of M campus.

Our team captain from two years ago, Rich Schuster, returns to assist the team and mentor newer students. Another alumnus has helped us to utilize the Rochester Hills firehouse for planning meetings the day after kick-off. Our former programmer, John Dong, is still available for assistance with programming and our website while he studies at MIT.





Innovation:

In our race to succeed, we also look at opportunities to use innovative methods to achieve our destination. We changed our website to be more interactive so students can collaborate from home. Our team uses an e-mail group and handouts in addition to the website to ensure that all members are well informed.





John Dong, a senior last year, 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 helped spread this knowledge among FIRST teams by making a technical presentation at the Novi Kickoff event in January 2007.

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 succeed and we can see the finish line ahead. The Adambots are well known and respected in our community and in FIRST. Even after winning the Archimedes Tournament and a Regional Chairman's Award, our team only looks forward to the great things we can accomplish.

