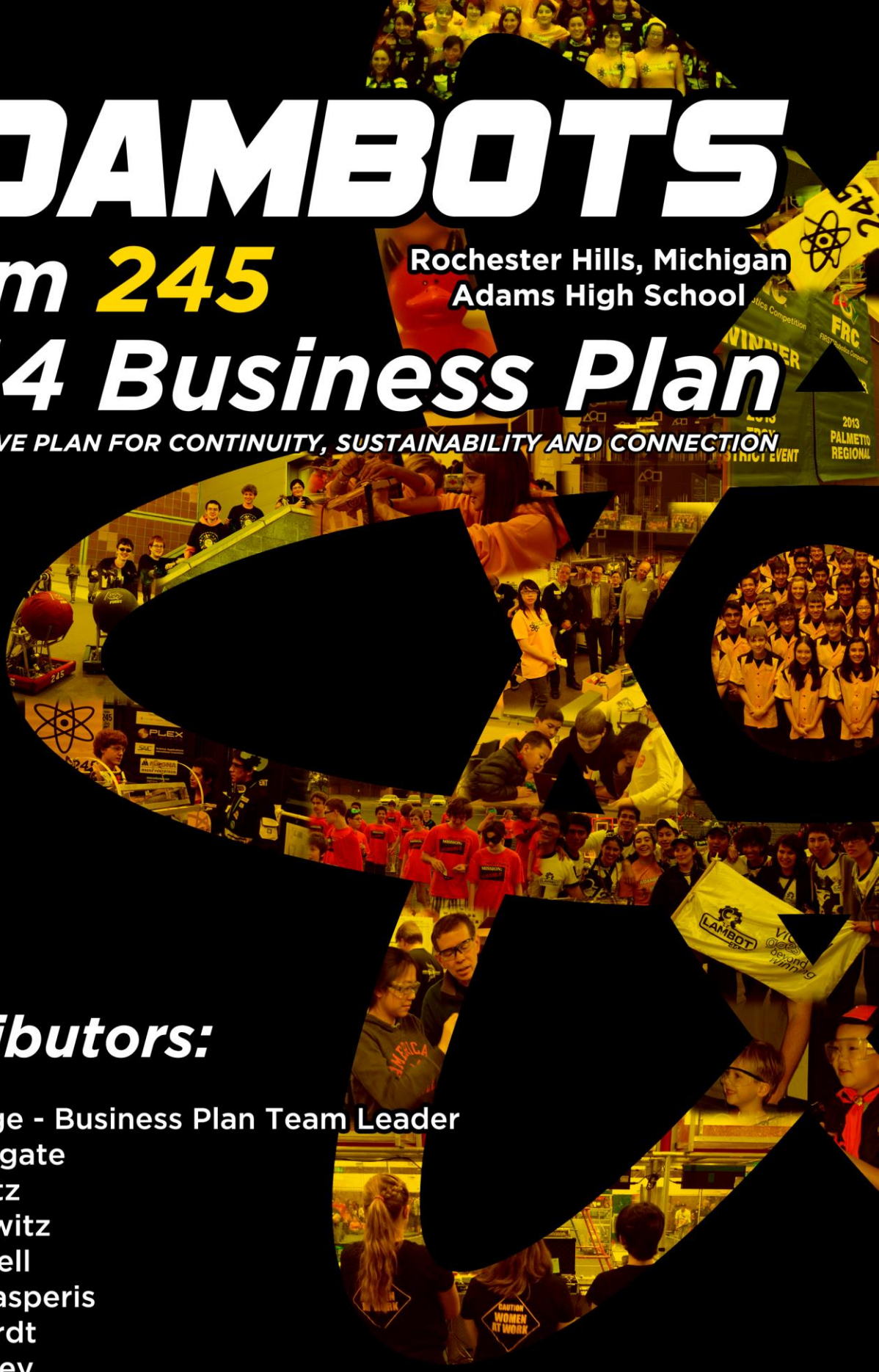
ADAMBOTS

Team 245

Rochester Hills, Michigan
Adams High School

2014 Business Plan

COMPREHENSIVE PLAN FOR CONTINUITY, SUSTAINABILITY AND CONNECTION



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1.0 Executive Summary

Team Mission Statement

For years, the AdamBots' stated mission has been*: "**To provide an inspiring learning environment that fosters growth and appreciation of STEM and business knowledge, and to teach students skills vital to success in the real world through a strong relationship between students, mentors and sponsors."* At the nucleus of this mission are student and mentor team members, focused on collaborating to inspire interest, knowledge and application of STEM, business and leadership skills. *FIRST* values such as Gracious Professionalism™ and Coopertition™ serve to bond our members –student and mentors alike – and provide a focus for all that we do. Orbiting the nucleus are key team values which further energize us to sustainable team success and contribute to the goal of spreading the word of *FIRST*. These values include hands-on and mentored learning, student leadership and project management with mentor assistance, excellence in sponsor relationships, strong outreach and giving back to the community, high-distinction in team competitive performance and team branding, fundraising and financial stability, risk management, appreciation of diversity and having fun. Our Business Plan has been created to document the team's approach to achieving our mission in a sustainable manner so that the positive charge the AdamBots radiate will also attract, enthuse, and empower future team members as well as other *FIRST* teams both in our community and around the world.

Team Origin

Team 245, the AdamBots, from Rochester Hills, Michigan, have competed in *FIRST* robotics competitions since 1999. We have grown steadily over the years, from 30 students and three mentors to 75 students and 35 mentors. Today our mentors consist of alumni, current and retired teachers, and past and present team parents. We operate out of Rochester Adams High School where we work in the CAD classroom and two adjacent computer labs. Our team has overcome challenges through the years in order to participate in *FIRST*. Through 2008, we had access to a build workshop which included a wide range of tools and an area in which we could set up field pieces. In 2009, due to the closure of a sponsor's facility, we moved to a small storage room connected to the CAD room at our school. At first this was difficult, but we have since adapted well to our new build environment. Although the build space is small, it is actually more convenient for the team to build and meet at the school. Our team's growth, while excellent, has presented us with challenges as well. We manage growth through continual enhancement of our team structure and training, project management, work environment, and sponsorship. New this year, we set up a room adjacent to the CAD room to store field pieces and old robots; this way there is more space to build in our small build room. We also added a Fabrication sub-team to better facilitate workflow related to building robot parts for the build teams to assemble. Additionally, we work to add a new sponsor each year to fund our growing team.

Organizational Structure

The AdamBots are organized into ten Engineering sub-teams and nine Business sub-teams, each with at least one student leader and one mentor. Student leaders also make up the Program Leadership Team, which manages the schedule and resources. A team mentor who has experience in accounting for large companies manages team funds. These funds are accessed through the Rochester Community Schools Foundation, which acts as our fiduciary. We also keep receipts to manage a petty cash fund, used for urgent purchases. Corporate sponsors provide much of our team's funds. We make use of sponsor funds to pay for entry fees, tools, materials and some traveling expenses. Often, we acquire corporate sponsors through mentors or team parents, and we seek out at least one new sponsor each year. Team members contribute financially by paying for travel, food, and team spirit wear and by operating our Art & Apples Festival Parking Lot business. We are also structured for long-term sustainability through our recruiting activities. For example, by mentoring two FTC teams at the local middle school and helping with an after school robotics class at a nearby elementary school, we have a steady flow of trained students who can be future members of the AdamBots. Parents and alumni have often found the AdamBots experience so rewarding that they stay engaged, even when parent mentors no longer have children on the team. *FIRST* principles are at the center of our mission statement and guide us in all we do, how we treat each other, as well as engage with other teams, sponsors and the community.

Relationships

Our team's students, mentors and sponsors work together to create an inspiring learning environment that fosters *FIRST* objectives. Mentors hold weekly fall workshops to help students gain insight into areas of interest, expand knowledge beyond school curriculum and introduce them to essential tools and robot design concepts such as: chassis, control, electronics and programming systems. We strive to engage our team members through our 19 Engineering and Business sub-teams, which provide a myriad of work that appeals to team members' skills and interests. Students lead sub-teams, where they gain leadership experience, pride, confidence and a feeling of ownership. Our success and dedication is communicated throughout the school, which stimulates an eagerness for new members to join. Students are able to earn a varsity letter and attend an awards banquet, helping to build interest and pride in team accomplishments. We use a "Balanced Scorecard" tool, located in the AdamBots' Business Plan, to measure team member and sponsor satisfaction and retention. Additionally, many mentors are employees of our sponsors, and collaborate with the students to retain these sponsors. We use thank-you letters, presentations and invitations to visit our worksite and competitions for this purpose. New members are integrated into our team through annual team building activities, such as a road rally. We also do team building through community outreach activities, including Relay for Life, CROP Walk, and Step Up for Down Syndrome, which emphasize our commitment to giving back to the community.

Deployment of Resources

We use our resources to spread the benefits of *FIRST* throughout our school and community. At the school level, we build interest in robotics through demonstrations at pep assemblies, wearing team shirts, messages on school announcements and features in school/local newspapers. We encourage students to participate in outreach activities including but not limited to teaching LEGO robotics classes at nearby elementary schools and demonstrating our robot at the public library, to Boy Scout troops and at elementary schools. We also mentor two local FTC teams and two FRC teams from Mexico. For the first years of our FRC career, we devoted most of our resources to building a robot, though the increasing success of our program has allowed us to attract more students, leading to an expansion of team endeavors to include more business and outreach

activities as well. Students interested in marketing, presentation, strategy, media, photography, imagery and more are integral to the team and better enable us to expand the message of *FIRST* in many ways, including our student-run website and social media outlets. The increase in participation attracts more mentors, and the business endeavors students pursue help bring recognition to our team that a solely engineering-based program could not achieve. Our engineering assets have also steadily increased, as more students and mentors enable us to design a robot to perform to all aspects of the game, build practice fields, simulation and demonstration robots and more, allowing all team members to engage in team activities and feel valued.

Future Plans

The AdamBots plan to strengthen connections with our school, community and sponsors, further communicating to them the importance of *FIRST*, so that we can further enlist their strong support. To do this, we will invite the mayor, superintendent, principals and existing and prospective sponsors to our work site to see our team in action, and meet us and our alumni to learn how *FIRST* has made a positive impact in our lives. We will also invite them to witness the excitement of a *FIRST* competition firsthand. Furthermore, we will regularly enhance team imagery and brand to further strengthen our connections. These efforts will enable us to retain current sponsors and also help reach our goal of adding at least one new sponsor per year, making us more financially sustainable. Additionally, we will attract and develop a strong –as well as culturally and gender diverse– team membership, within the AdamBots, as well as globally within *FIRST*. We will achieve this goal by mentoring at least one new FTC or FRC team each year. Currently we mentor two local FTC teams and two FRC teams from Mexico. By engaging students in robotics through FTC, we believe many of them will join the AdamBots when they reach high school. We will also continue mentoring the FRC teams from Mexico to help build up the global success of *FIRST*. Furthermore, we are fortunate to have a growing number of “EveBots” –female team members –now roughly one-third of our team. We plan to continue this growth by presenting team members with new Engineering and Business sub-team opportunities and team training workshops.

Financial Plan

Our financial support comes from three sources: sponsors, our Art & Apples Festival Parking Lot business, and team member fees and contributions. We have contingencies in place, such as leaving “seed” money for the next year, equal to approximately 18% of our budget, so we can sustain our team in the event we lose funding. Team monies are managed from the Rochester Community Schools Foundation, a 501 (c) 3 non-profit that acts as our fiduciary. Sponsors provide roughly one-third of our annual income. In recent years we have added one sponsor each year, a trend we plan to continue. Our sponsors are General Motors Global Product Development, Chrysler Foundation, R&G Drummer, Plex Systems, Wally Edgar Chevrolet, U.S. Army TARDEC National Defense Educational Program, and Valeo Thermal Systems. Each fall, the AdamBots operate a profitable parking lot business during a three-day art festival. Team members work in shifts, raising over $7,000 each year. We also wear team t-shirts, and this event becomes an opportunity to talk to the public about our team and *FIRST*. Additionally, we fundraise by conducting can drives, and team members pay for t-shirts, a participation fee and half of their travel costs. Our most significant expenses include travel (over 47%) and event registrations (12%). A graph of the AdamBots’ 2014 Budget is included in the Business Plan, detailing team income and expenditures. Our “Continuity of Operations Plan”, also located in the Business Plan, details contingency plans in the event we lose a sponsor or other funding.

Risk Analysis

In order for the AdamBots to run and operate successfully, we must properly manage our essential resources and prepare for a myriad of risks. We are fortunate to have a large and skilled team, excellent human capital, facilities, and finances, as well as the privilege to take part in out-of-state events. These privileges and opportunities make up our key resources, and we desire to do as much as we can to protect them and minimize risk. Thus, through careful consideration, we developed a “Continuity of Operations Plan” (or COOP) within our Business Plan, in order to properly respond to any risk that could threaten our resources. The essential resources can be placed into five distinct categories: human capital, facilities, equipment, information, and finances. Risks we have identified as the most serious include the loss of: teacher mentors, key engineering mentors, key business mentors, students, build location, computers, team documentation information and corporate sponsors. The COOP provides alternative responses to each key risk, and provides an account of, if applicable, how we dealt with the risk in the past. For example, the COOP references the loss of a corporate sponsor, and provides responses such as: working with parents to recruit a new sponsor to alleviate risks, carrying around 18% of our budget into the next season as a safety net, and reducing expenditures to match our budget. Then we detail our response to losing a key sponsor several years ago, including how we acquired more sponsors and cut back on expenses.

2.0 Background Information

2.1 Basic Team Facts

Rookie Year	1999
Location	Adams High School, Rochester Hills, Michigan (CAD classroom)
School Affiliations	Rochester Adams and Stoney Creek High Schools
Team Demographics	75 Students (up from 30 during Rookie year) • 22 girls and 53 boys • 61 Adams H.S. and 14 Stoney Creek H.S. • 22 Seniors, 13 Juniors, 26 Sophomores, 14 Freshmen
Mentors	35 Mentors (up from 3 during Rookie year) We draw mentors from current and retired teachers, alumni, past and present team parents. Mentor professions include: • Teachers • Engineers • Business • Technical
Sponsors	General Motors Global Product Development, Chrysler Foundation, R&G Drummer, Plex Systems, Wally Edgar Chevrolet, U.S. Army TARDEC National Defense Educational Program, and Valeo Thermal Systems
Website	Adambots.com

2.2 Team Values, Mission, and Goals

Team Values

Gracious Professionalism™ and Coopertition™ are values that the AdamBots uphold in our everyday life, helping create a world in which respect and encouragement are evident everywhere.

Gracious Professionalism™

Gracious Professionalism™ is the manner in which we approach our work. It involves treating everyone with the utmost respect. Genuine encouragement is preferred over "trash talking." Through Gracious Professionalism™, we work to improve ourselves while encouraging the growth of others; a way in which every member of the community is valued and supported.

Coopertition™

Coopertition™ describes the way in which we approach competitions. It is a manner in which a respectful, fierce competition is nurtured. Coopertition™ is a combination of the words "cooperation" and "competition." It involves helping others, whether they are teammates or members of a rival team, and encouraging them to perform to the best of their abilities. In doing so, one ensures that the competition the team faces will consist of the teams at their

best. Coopertition™ nurtures the growth and development of everyone through mutual encouragement.

Methods for Continued Success

- Exhibit Gracious Professionalism™
- Have fun
- Diversity in members
- Mentored learning
- Hands-on learning
- Student leadership
- Project management
- Fundraising
- Community outreach
- Marketing
- Sustainable business planning
- Excellence in sponsor relationships
- Risk Management
- High distinction in team competitive performance and team branding

Mission

The AdamBots' mission is to teach students skills vital to success in the real world. The team seeks to teach students the importance of cooperation, innovation, communication, and leadership. By offering an environment in which these skills are used, we prepare students for success.

A method to accomplish this mission is to foster a strong relationship between student, mentors, and sponsors. This relationship is an important link for valuable knowledge and experience from mentors and sponsors to be transferred to future scientists, a means by which mentors and sponsors can nurture the next generation and apply their skills in areas outside their job.

Another vital method to accomplish the mission is to nurture a family-like relationship between members. We are not only a group of people who work together and share a passion for STEM, but also a community whose members encourage each other to succeed in all aspects of life whether they pertain to robotics or not.

Goals

Short Term

- Follow our project management calendar
- Finish building the robot on time
- Perform well at competitions

Long Term

- Maintain a sustainable team
- Increase our team impact within our team, locally, nationally, and internationally
- Strengthen connections with our school, community, and sponsors and communicate to them the importance of *FIRST*
- Attract and develop a culturally and gender diverse team membership

2.3 Member Benefits – Students, Mentors, School and Sponsors

For Students:

- Learn how to plan and build a working robot through programming and construction
- Start or build upon business, communication, and leadership skills such as business planning, marketing, scouting, project management, presentation, and website design
- Have fun
- Be part of a community and work as a team through collaboration and teamwork
- Help others through community outreach programs and volunteer opportunities
- Gain opportunities to earn scholarships for colleges and other institutions
- Get a head start in studying a STEM related field such as engineering, etc.
- Improve multi-tasking and time-management skills
- Work with and learn from adult mentors who have professional experience in the areas of science, technology, engineering, math, and business

For Mentors:

- Share knowledge and experience with students to help them accomplish their tasks, in both engineering and business areas
- Have fun
- Be part of a community and work as a team through collaboration and teamwork
- Help others through community outreach programs and volunteer opportunities
- Help give the students a “real life” learning experience they cannot get in the regular classroom by sharing problem solving techniques

For School:

- Support an outstanding student development program
- Support STEM and business interests in their students
- Increase name recognition as a school that helps develop outstanding students
- Help support students through scholarship opportunities

For Sponsors:

- An opportunity to market their company
- Reach out to the community in a positive way
- Develop future employees
- To help inspire students to enter the fields of science and techology

2.4 Team History

During the team's rookie year in 1999, the AdamBots were simply known as the "Adams High School Engineering Club." The second year, the team decided to use the name "Golden Eyes," but it did not take hold. It was not until the team's third year when the name "AdamBots" was chosen as the official team name.

The AdamBots began under the faculty mentorship of Mr. Alan Gibson, a physics teacher at Adams High School, and Mr. Gasper Cairo and Mr. Paul Slaby, mentors from our sponsor at the time, Siemens VDO. Year two brought in Mr. Chris Smith, a physical science teacher, to assist Mr. Gibson with the team. In 2001, Mr. Gibson retired and Mr. Smith continued to mentor. In 2003, Mr. Smith left Adams High School and Mr. John Hilburger, a physics and calculus teacher, took charge; however, Mr. Hilburger moved out of state. That year, Mr. Warren Hildebrandt moved from Rochester High School to Rochester Adams High School and became the faculty mentor. Mr. Hildebrandt has been with the team ever since!

The AdamBots experienced minimal competitive success for the first four years. Building a working gearbox was considered a huge accomplishment; however, this all changed in 2003!

The game in 2003 was called *Stack Attack*. The objective was to stack boxes on top of each other. A senior on the team, Carl Fristad, suggested a simple concept for the challenge: build a robot capable of performing one task very well. The team decided on a modest design of a powerful drivetrain with two arms extending from the edges of the robot. The arm design was eventually simplified to just two flaps extruding from the edges of the robot. The team decided to name the robot "Penelope." At the first regional of the season, the Midwest Regional in Chicago, the robot performed exceptionally. Team 45, The TechoKats, from Kokomo, Indiana, chose the AdamBots as an alliance partner. This selection led to the team's first regional victory. Next, at the West Michigan Regional, the AdamBots won again.

In 2005, the team found the perfect solution to the *FIRST* game, *Triple Play*. There was much debate about the design of the robot, but the team eventually decided on a forklift design. Rich Schuster and Jeremy Clemens were the builders extraordinaire. They led the building of the 2005 robot and eventually dubbed the robot "Victoria."

In 2005, the AdamBots did extremely well in the first regional competition. They went to Sacramento and placed first in the seeding matches. The team asked for the assistance of teams 766 and 1072 and won first place in the finals at the Sacramento Regional. They then went on to win the Detroit Regional with teams 217 and 301 and won second place at the West Michigan Regional. The AdamBots qualified for the World Championship where they placed 2nd in the elimination rounds and chose teams 217 and 766 as alliance partners. After their selections, they went on to win the Archimedes Division at the *FIRST* Championship. The team placed third at Championship Event, losing to the eventual World Champions, led by Team 67, by only a few points.

In 2006, the AdamBots again competed at the Sacramento Regional, in which the team won the regional Chairman's Award and the Woodie Flowers Award for Mr. Hildebrandt. The team also competed at the World Championship.

2007 wasn't the team's most successful year, but the team was able to compete in the very first Michigan State Championship after some District events.

In 2008, the AdamBots participated at both the Detroit and Great Lakes Regional competitions. The team won Best Website awards and made the elimination rounds at both competitions.

In 2009, the AdamBots created "Olympia," a very simple but extremely effective robot. "Olympia" had zero failures in 110 matches and won multiple Quality Awards. The team won the Kettering District Event, MARC Competition, TARDEC IGVC Invitational and was a finalist at the Lansing District Event. They also gained another Website Award. The AdamBots were fortunate enough to participate in the World Championship in Atlanta, Georgia, where they made it to the semi-finals in the Curie Division.

In 2010, the team grew by including students from Stoney Creek High School. They also gained a new sponsor, Plex Systems, Inc. while GM continued to sponsor the team. The AdamBots competed at the Kettering District competition, earning the Imagery Award and getting to the quarter-finals. The team also competed in the Detroit District competition, once again playing to the quarter-finals and earning a spot at the State Competition. During the off-season, the team competed at the TARDEC IGVC Invitational and won the finalist trophy.

The 2011 season proved to be an exceptional year for the AdamBots. They began the year by agreeing to mentor a rookie team from Mexico, *FRC* Team LamBot 3478. Team members used Facebook, Skype, and teleconferencing to communicate with the Lambots. Team mentors from Mexico also came to meet with AdamBots team mentors and took information back to their team on several occasions.

The team traveled to the Alamo Regional in San Antonio, Texas to compete and to meet with Team LamBot. The AdamBots finished as finalists and won the Best Website Award while Team LamBot won the Rookie All-Star Award. The next competition for the AdamBots was the Detroit District, where they again placed as finalists and won the Website Award. At the Troy District, the team finished as semi-finalists, won the Website Award and won a new award, the Entrepreneurship Award. At the Michigan State Championship, the AdamBots again were finalists, earning a spot at the World Championship in St. Louis, Missouri. The AdamBots competed in the Curie Division and ended the *FIRST* season as quarter-finalists. The big surprise came when the World Championship Website Award was announced and the team won! The team was also awarded the GM Team of the Year Award. The AdamBots were proud that their rookie team, LamBot, won the Championship All-Star Rookie Award.

The team competed in three off-season events, earning the championship award at the TARDEC IGVC Invitational Competition, Finalist Award at the MARC Competition, and competing at IRI for the second time. New sponsors, *SAIC* and Wally Edgar Chevrolet, joined GM and Plex Systems, Inc. to support the team for the 2011 season.

In the 2012 season the AdamBots were again successful. They kicked the year off with the usual design meeting where the team came up with solutions and strategies for the year's game *Rebound Rumble*. The team built "Margarita," a wide-chassis robot that was a great solution for the shooting, feeding, and balancing involved in *Rebound Rumble*. The AdamBots continued to mentor *FRC* Team LamBot 3478 throughout the build season, and enjoyed meeting up with them once again in San Antonio, Texas, to compete at the Alamo Regional.

The AdamBots' first competition of the 2012 season was the Alamo Regional. There, the team made it to the quarter-finals and won the Entrepreneurship and Website Awards. The next competition was the Niles District in Michigan. At Niles, the AdamBots again finished in the quarter-finals and won the Quality Award. The team competed next at the Troy District, and again finished in the quarter-finals and won the Website and Entrepreneurship Awards. At the Michigan State Championship, the AdamBots made it to the finals with *FRC* Teams 2054 and 548. The AdamBots won both the Entrepreneurship and Website Awards at the State Championship, and with that, earned themselves a spot at the *FIRST* Championship in St. Louis. The AdamBots competed in the Archimedes Division and were quarter-finalists with alliance partners *FRC* Teams 1676 and 1592.

The team competed in three off-season events and was a quarter-finalist at the TARDEC IGVC competition and finalists at the MARC competition. The AdamBots were excited to be part of the winning alliance at the IRI Competition along with *FRC* Teams 2826, 1114, and 4334.

Also during the 2012 season, the AdamBots were pleased to gain Chrysler as a new sponsor, while GM, Plex Systems, Inc., *SAIC*, and Wally Edgar Chevrolet continued to support the team.

The 2013 *FIRST* season was another landmark year for the team. The AdamBots started the season out strong, winning the 2013 Safety Animation Award for an extraordinary animation. As usual, the team had its annual design meeting to kick off the season for that year's game, called *Ultimate Ascent*. The team built one of their smallest robots to date, "Persephone", to account for the game's unique pyramid structures and hanging requirements. The AdamBots continued to mentor *FRC* Team LamBot 3478, and met with them in St. Louis, Missouri, at the *FIRST* Championship at the end of the season.

The team's initial competition was the Palmetto Regional in South Carolina. In the end, the AdamBots claimed first place, securing their entrance to the World Championship. The team's second competition was the Grand Blanc District, in Michigan. At Grand Blanc, the team ended up as finalists and won the Entrepreneurship award. The next championship was the Troy District – this time the team won the Quality award and achieved first place –and was among the most

frenetic competitions in the team's history. Following this, the team participated in the Michigan State Championship and placed as semi-finalists. At the World Championship in St. Louis, the team was in the Galileo division. There, the team ended up in the eighth alliance spot and attained the position of semi-finalist in their division.

The AdamBots continued their success in several off-season events. At the MARC competition, they attained the position of finalists. At both the Michigan Science Center Competition and the Bloomfield Girls Robotics Competition, the team was champions. Wrapping up 2013, the AdamBots attended IRI and left as semi-finalists. Arguably, 2013 is among the AdamBots' most successful years.

Also, the AdamBots were pleased to gain two new sponsors in the 2013 season, R&G Drummer and Magna Powertrain AG.

The team is off to a great start for the 2014 *FIRST* season. The AdamBots have continued to grow with the addition of two new sponsors this year, TARDEC and Valeo Thermal Systems. The team's first competition of 2014 was the Hub City Regional in Lubbock, Texas. The team ended up as semi-finalists. Additionally, they won the Team Spirit and Innovation in Control awards. Next, the team went to the Howell District in Michigan, where they again ended as semi-finalists. This time, the AdamBots won the Entrepreneurship Award.

2.5 Oakland County Competitive Robotics Association (OCCRA)

Each fall, the AdamBots participate in the Oakland County Competitive Robotics Association, or OCCRA, a local robotics competition held in Oakland County, Michigan. Twenty-five county high schools, including the AdamBots, participate, and each year, a new game is given and the teams must build a robot to play this game.

OCCRA and *FIRST* differ in several ways. One of the rules of OCCRA is that teams are not allowed to use any precision machining. Robots must be built with lighter machinery, such as hacksaws and drills. Also, teams are not allowed any kind of corporate funding. Because of this, students work together to fundraise and cover expenses. The biggest difference is, in OCCRA, robots must be student designed, built, and operated. Mentors are not allowed to help with any part of the robot. This gives students more responsibility over the project and allows them to be in control of the build process from start to finish.

One very important benefit of OCCRA is it helps the AdamBots prepare for *FIRST* season and allows for team bonding. By the time the *FIRST* season begins, new students already have some experience building robots and understanding of how the AdamBots operate. Also, with a team as large as ours, it allows new members to find what sub-team best suits them on the team and become friends with other students. With OCCRA, we are also able to try new building techniques or experiment building something we have never tried before. This gives the team more building experience for *FIRST*.

OCCRA Mission:

The Oakland County Competitive Robotics Association (OCCRA) shall organize and administer a high school competitive robotics league in Oakland County for the purpose of:

1. Generating enthusiasm for technical and academic disciplines such as design, engineering, physics, mathematics, and electronics through student designed and built robots
2. Providing a format for integrating and applying diverse scientific, technical, and other areas of study within the high school curriculum
3. Providing recognition and encouragement for students who devote their energies to these technical, scientific, and other areas of study
4. Promoting team/workplace skills and good sportsmanship
5. Raising awareness within high schools of the diverse technical career options available in our county and state
6. Creating partnerships with corporations and the educational community that will enrich the high school experience for our students by providing greater accessibility to people in scientific and technical careers

OCCRA Mission Source
http://www.oakland.k12.mi.us/Departments/CareerFocusedEducation/OCCRA/AboutOCCRA/tabid/587/Default.aspx

2.6 For Inspiration and Recognition of Science and Technology (*FIRST*)

FIRST, For Inspiration and Recognition of Science and Technology, is a competitive robotics competition founded by Dean Kamen in 1989. Its mission is "to inspire young people to be science and technology leaders, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership."
Its headquarters is located in Manchester, New Hampshire.

FIRST consists of five different programs:

- *FIRST* Robotics Competition for Grades 9-12 (ages 14-18)
- *FIRST* Tech Challenge for Grades 9-12 (ages 14-18)
- *FIRST* LEGO League for Grades 4-8 (ages 9-16; 9-14 in the U.S. and Canada)
- Junior *FIRST* LEGO League for Grades K-3 (ages 6-9)
- *FIRST* Place for ages 6 to adult

The AdamBots compete in the *FIRST* Robotics Competition every year. As mentioned earlier, we use the *OCCRA* season in the fall to help develop the team and introduce newer students to robotics. We use the *FIRST* season, starting with the kick-off event in January through the World Championship in April, to continue to develop our team. We also use post-season *FIRST*- based events to continue our growth opportunities and refine our skills.

3.0 Organizational Plan

3.1 Team Structure

Our team is divided into two sections, engineering and business. To be more efficient, sub-teams are created within the engineering and business sections to handle the specific tasks of the team. Each sub-team is assigned a student team leader(s), team mentor(s), and students. Focus is placed on a having a student-led team rather than an adult-led team. During the off-season, new team members participate in new student workshops in which mentors and veteran students teach them about engineering, robotics and the business aspects of the team. Through this, new team members enter into the *FIRST* season with a greater knowledge base.

Students fill out forms ranking their top team choices and nominating themselves or others for leadership positions. Current student team leaders and adult mentors then meet to decide what sub-teams are needed and on which sub-teams students or mentors belong. Students are generally given their top two sub-team selections and student leaders are only given one sub-team to lead. Each student is required to attend their team's meetings and help with their team tasks. See the Appendix for the organizational chart of this year's team structure.

See Appendix: 2014 Engineering and Business Structure Charts

3.2 Human Resources

Recruiting

Recruiting begins at area elementary schools where we speak to the students and give robot demonstrations. As a result, some students typically join *FTC* teams at the middle school where we assist and mentor. We reach out directly to students when they reach high school. At Rochester Adams High School, we have an information table at the freshmen orientation in which students can get information about joining the team. At the beginning of the school year, we also have a large, informational sign-up meeting.

The AdamBots also recruit mentors, and our primary source is parents of student team members. At parent meetings, we ask parents if they would like to mentor the team.

Retaining

The AdamBots strive to retain as many team members as possible. We retain members by appealing to their interests and providing work. Students fill out interest and skill inventory forms so they can be placed on the best sub-teams. Once on sub-teams, all students are given tasks by student leaders and mentors. On our Balanced Scorecard, we set goals and measure success in member retention.

See Appendix: Balanced Scorecard

Strategic Direction

The continued success of Team 245 has attracted many students from both Rochester Adams and Stoney Creek High Schools. For the past few years, the number of students on the team has increased rapidly, to our pleasure. However, the potential for a future growth rate, such as that of the past few years, presents a challenge to the team's long-term sustainability. After careful consideration, it was decided that the AdamBots will continue as a single-school team based at Rochester Adams, rather than as a joint team. A new team will be formed at Stoney Creek, and talks and work are underway to make this happen. Those students who are currently on the AdamBots team from Stoney Creek will be allowed to remain with the AdamBots, while new students from Stoney Creek will join the new team at Stoney Creek High School. This approach will ultimately allow more students to participate in *FIRST* at both high schools.

Training

We train both students and mentors. Students are trained through *OCCRA*, training programs, student workshops and mentor-to-student or student-to-student interaction. Mentors go through training to learn how to best engage students and cooperate effectively.

Attendance, Participation, and Behavior Expectations

Students are expected to be on time to all events, matches, and major meetings. Team meetings are in the CAD room every Tuesday from 2:45 to 3:30. If a student is unable to attend, a mentor or team captain should be aware of his or her absence.

Students must attend their own sub-team's meeting on a weekly or daily basis, depending on the demands of the group. If a student is unable to attend, the team captain must be aware of his or her absence. Additionally, sub-teams may schedule meetings at night, between 7:00 and 9:00, and many sub-teams work from 9:00 am to 5:00 pm on Saturdays during the *FIRST* season.

For a student to remain on the team, he or she must have passing grades in all of his or her classes.

A student must participate in at least three community outreach activities. The student will have an opportunity to sign up for these activities throughout both the *FIRST* season and the off-season.

Students attend competitions to not only help support our team, but to also provide moral support for all the teams attending. Students who attend competitions will have to exhibit team spirit, or the act of cheering for not only our team, but for others as well. All cheers are expected to be upbeat, clean, and positive. Playing on one's electronic device or other form of entertainment is discouraged. Team members are expected to be "Gracious Professionals," or in the words of Woodie Flowers, "never do anything you wouldn't want your grandmother to see." Team members are required to work together peacefully and cooperatively, remembering to be gracious in winning and losing.

Students must not spread invective through e-mails, letters, postings, mouth, or any other form of communication. This includes an intention to spread hurtful messages, gossip, or acts of revenge or hate.

See Appendix: Team Student/Parent Agreement Form

Safety

Safety of team members is of upmost importance. Students and mentors working with the robot at school or in the pit must wear safety glasses. The use of power tools is supervised by experienced mentors. We use safety cards and pit passes. Students wear safety cards to signify what tools they have been trained by a mentor to use. Also, a set amount of pit passes are given to students and mentors to ensure we do not have too many people in the team pit at competitions.

3.3 Location

Rochester Adams High School allows us to work and build in the school CAD computer lab and the adjacent workroom. We have tooled the workroom with the necessary machinery our team needs. When more specific machining is needed, mentors will take parts home or will work with students to machine the part elsewhere.

Unfortunately, in 2008, we lost our original building location and had to move to Rochester Adams High School. As a result, in our Continuity of Operations Plan (COOP) we detail our plan in the event we lose our build location again.

See Appendix: Continuity of Operations Plan (COOP)

3.4 Off-Season Events

The AdamBots typically participate in three off-season events: The Michigan Science Center Competition, MARC, and IRI. New this year, we participated in the Bloomfield Hills All-Girls *FIRST* Competition. We participate in these competitions to allow underclassmen to gain more competition experience in a less competitive environment.

Michigan Science Center Competition

Starting last year, we participated in this off-season *FIRST* event. It took place at the Michigan Science Center in Detroit. We were champions at this event.

MARC

MARC, or Michigan Advanced Robotics Competition, is an off-season event that takes place during the summer in Monroe, Michigan. MARC is arranged for students to have fun and practice driving their robots at competitions off-season. We were finalists in 2011, 2012 and 2013, and won in 2009.

IRI

The Indiana Robotics Invitational, IRI, is an off-season event that takes place during the summer in Indianapolis, Indiana. The event is invite-only and we have been privileged to receive an invitation each time we have applied. The AdamBots were part of the winning alliance in 2012 and were Quarter-finalists in 2013.

Bloomfield Hills All-Girls *FIRST* Competition

New this year, The AdamBots participated in an all-girls *FIRST* competition at Bloomfield Hills High School hosted by the Bionic Barons, Team 2834, and Las Guerrillas, Team 469. The AdamBots won all but one qualification match and were the second alliance captain. In the elimination matches we won along with Teams 469 and 2604.

3.5 Community Outreach

The AdamBots choose to do a plethora of community outreach events to further impact our community and to emphasize the importance of social responsibility to team members.

Step Up for Down Syndrome

Step Up for Down Syndrome is a walk around the Palace of Auburn Hills that benefits The Down Syndrome Guild of Southeast Michigan. We have participated every year since 2010, when we walked for a sibling of a team member. The team currently volunteers for duties such as setting up, running games and cheering on walkers,

Rochester Hometown Christmas Parade

The AdamBots, along with other local *FIRST* teams, build a parade float for the Rochester Christmas Parade each December. The float has a robotics theme and typically features a robot from each team. A few students from each team walk next to the float, carrying signs and posters for *FIRST*. We have won first place in the high school and college category in each year of participation.

CROP Walk

The CROP Walk is a walk for hunger that the Rochester community takes part in every year. Sponsored by the Church World Service, CROP Walks help to end hunger in the community and around the world. Participants raise money for the walk before taking part in the activity. The AdamBots take part in the CROP Walk every year because it is important not only to the community, but also to the world.

Robot Demonstrations

We display our robots at different events, including Boy Scout troop meetings and at elementary school science fairs and assemblies. For example, the robotics merit badge was introduced to the Boy Scouts of America during April 2011. To help promote this new badge, our robotics team worked with the Boy Scouts and *FRC* Team Killer Bees 33 and the *FRC* Team FEDS 201 in displaying robots at Oakland University on December 5, 2010.

Halloween Hoot

The Halloween Hoot takes place at the Dinosaur Hill Nature Preserve in the Rochester community every year in October. It is completely run by the community. Children in the elementary schools decorate and carve pumpkins, teens act out Halloween skits with well-known Halloween characters, and members of the Rochester Hills Women's Club provide cider and doughnuts. The AdamBots clean up after the last night of the Halloween Hoot. We take down the decorations and pick up after everyone is gone from the trails.

Relay for Life

The Relay for Life is a walk to support the American Cancer Society and cancer research. The AdamBots participate in the local Rochester Area Relay for Life every summer. The team raises money by selling rubber ducks at competitions, conducting a t-shirt signing day at competitions, participating in a community road rally and selling luminaries. Luminaries are place around a track in honor and memory of those who have died from cancer, or who are currently battling it. Our team has raised thousands of dollars from donations, especially from those supporting the team's own Rick Drummer. Mr. Drummer has been a mentor on the team for many years and Relay for Life allows us to honor and help him and everyone else who suffers from cancer. In 2013, the AdamBots raised over $10,000 for Relay for Life.

Leader Dogs for the Blind

The AdamBots supported Leader Dogs for the Blind by socializing a litter of puppies when they were 3-6 weeks old. The team also supported the host home by helping to clean up after and wash the puppies. One of the puppies from the litter was raised by an AdamBots family and the team helped to socialize and care for the puppy, especially at robotics competitions. The puppy was returned to Leader Dogs in March of 2013.

3.6 Mentoring and Helping Other Teams

Mentoring and assisting other teams is an integral part of the AdamBots' goal to promote the spirit of *FIRST.*

FRC Teams LamBot 3478 and Blue Ignition 3526

In 2010, one of our sponsors, General Motors, asked for experienced teams in *FIRST* to help rookie teams in Mexico that were also being sponsored by GM. The AdamBots gladly chose to assist Team LamBot from San Luis Potosi, Mexico. Several LamBot mentors flew to Michigan and met with the AdamBots to discuss team structure and organization and the *FIRST* season. Throughout *FIRST* 2011, students and mentors communicated and assisted Team LamBot remotely through online chat, Facebook, video-chatting, and teleconferencing. Every year since then, the AdamBots have continued their support and hold weekly design review sessions on Saturday mornings with Team LamBot . During the 2011 and 2012 *FIRST* seasons, the AdamBots had a great time meeting up with Team LamBot at the Alamo Regional, and at the 2013 *FIRST* World Championship. The AdamBots have always been greatly impressed by the tremendous enthusiasm of Team LamBot, and we were thrilled when they won the 2011 Championship Rookie All-Star Award and the 2013 Engineering Inspiration Award! The AdamBots additionally assisted Team Blue Ignition this year. Blue Ignition are from Saltillo, Mexico, and the AdamBots mentored them to help their preparation for the Chairman's and Entrepreneurship awards.

The Vikings FTC Teams 5183 and 6348

In 2011, the AdamBots were asked to help start and mentor an *FTC* team at a neighboring middle school, Van Hoosen. Our team responded by helping with both the engineering and business functions of the rookie team. Originally, they chose the name "Vikings", but later changed their name to "Viko-Psychos". By 2012, the new team had attracted such a large number of new students that a second *FTC* team was formed at Van Hoosen Middle School. Today, the AdamBots mentor both of these teams, including *FTC* Team Viko-Psychos 5183 and *FTC* Team Thunder Blades 6348. So far, both teams have won finalist and quality awards at competitions. Most of the students on these teams will eventually attend Rochester Adams High School. Therefore, by mentoring these teams, the AdamBots are recruiting and developing future members of our own team.

Additional Assistance

We also provide assistance to other teams on a regular basis. In addition to Team LamBot, we also assist *FRC* Team 3480 in Mexico by answering questions. Locally, we presented to *FRC* Team 3539, the "Byting Bulldogs," from Romeo, Michigan, and answered questions regarding creating a business plan and successful team website. Lastly, through our award-winning website, we provide an extensive resource section to help teams locally, nationally and around the world in all aspects of the *FIRST* competition.

4.0 Operational Plan

4.1 Tasks

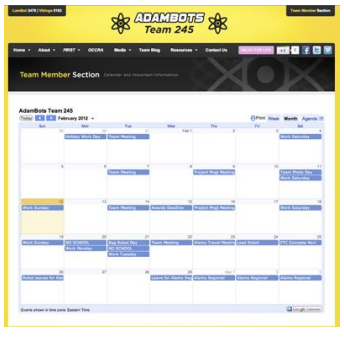
During the *FIRST* season, the primary focus is the robot. We are tasked to complete a new robot each year within a six-week time frame. Our team also completes many other tasks as a *FIRST* team. Below are the tasks we work to achieve each year.

- Design robot in CAD
- Build competition robot
- Build "simulation" robot
- Program and set up controls for robot
- Creation of mock field
- Update team Business Plan
- Create and order marketing materials (flyers, robot imagery, t-shirts, sponsor brochures, posters for the pit, give-away items, etc.)
- Take pictures and video and upload them to Dropbox and website
- Update website content
- Prepare and submit documentation for awards (Chairman's, Entrepreneurship, Woodie Flowers, and Dean's List)
- Complete documentation for teams that we are mentoring/assisting
- Create scouting forms and system
- Create and submit animation

4.2 Scheduling

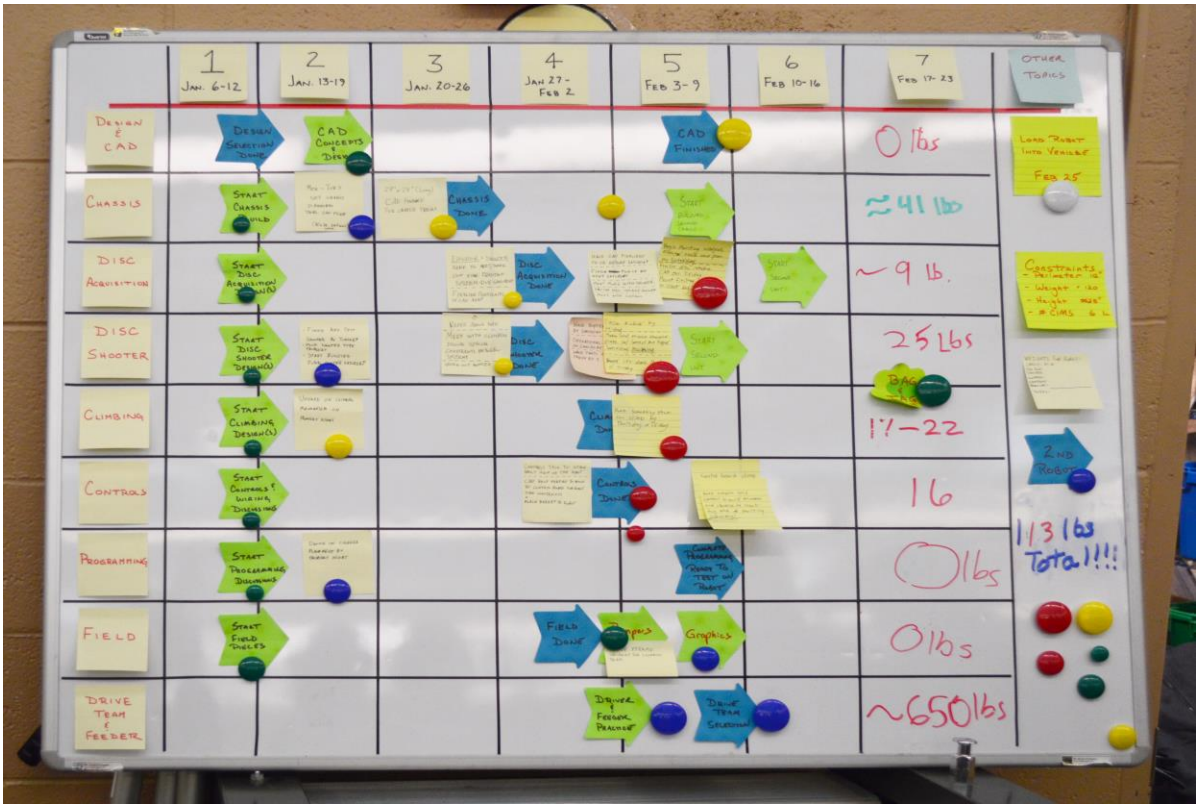
Each Tuesday after school, we conduct hour-long meetings that are attended by all team members. We also meet at the beginning of the *FIRST* season, on the day after the game is announced, to conduct an initial concept development session and begin the robot design process. Each Saturday, team-leaders meet to discuss deadlines and projects that involve multiple sub-teams. Each of our sub-teams meets at different times throughout the season to ensure that there are not too many people in the robot build area. Sub-teams decide what schedule works best for both the students and mentors.

4.3 Communication



Communication on the team involves team meetings, sub-team meetings, email blasts, leader-to-member communication, and the website. Also, our Team Manager sends emails to all team members and/or parents regarding events that involve the whole team. Student and mentor sub-team leaders send emails to communicate with sub-team members. On our website, www.AdamBots.com, we also maintain an updated calendar with both specific sub-team events and general team events.

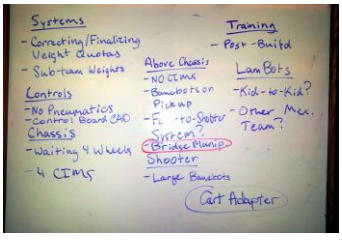
4.4 Project Management

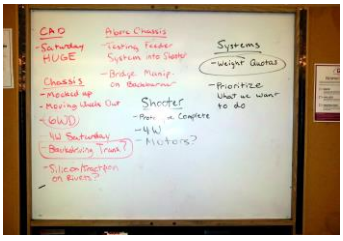


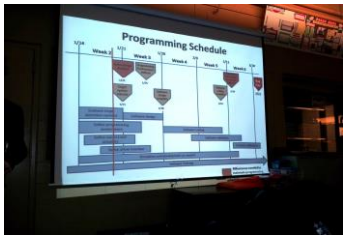
Good project management is vital to our continued success during the FIRST build season. Our team utilizes a Program Leadership Team that consists of all sub-team student leaders and three mentor leaders to help keep our team on task and on schedule. There are a plethora of tasks that require completion during the build season, and we created the Program Leadership Team in order to coordinate sub-teams and facilitate task completion. The Program Leadership Team conducts weekly meetings and makes use of a board (pictured above) to implement and enforce deadlines for sub-teams. Our Program Leadership Team emphasizes visibility of the board to ensure that the milestones are ever-present and that sub-teams know the other sub-teams with which they must collaborate.

Engineering sub-team student leaders and mentors conduct a design review meeting every Thursday evening and Saturday afternoon. During these meetings, each engineering sub-team presents their design using CAD drawings. This review identifies design issues, coordinates interfaces between sub-teams and makes the robot build status visible to all involved. Issues are recorded on an action item list for follow-up after the meeting.

Thursday Evening Design Review Sessions







5.0 Marketing Plan

5.1 Target Audience

Rochester Adams High School Administration

Rochester Adams High School allows us to work in the school's CAD room and a small adjacent workroom. Additionally, one teacher and a retired teacher work with us daily. We market ourselves to the administration and faculty to ensure their strong, continued support through formal meetings and casual conversations. We formally invite the principal to attend events hosted at home, and extend invitations to administration and faculty to attend all of our local competitions.

Rochester Community Schools (RCS) School Board

The RCS School Board allows us to use the RCS Foundation as our financial fiduciary and also allows us to use their administration building parking lot each fall to conduct our Art and Apples Festival parking lot business. The business has been very successful, and allows us to raise a significant funding for both OCCRA and *FIRST*.

See Section 6: Parking Lot Business

Sponsors

Sponsors provide the largest financial support, as well as many of our mentors and miscellaneous donations to the team. We target current and potential sponsors through marketing and direct communication to ensure their continued support and to gain new sponsors. Specific students are assigned to keep sponsors up to date, and we have visited sponsors to thank them for their assistance.

Potential Team Members (Students and Mentors)

We target potential team members, both students and mentors, because our people are the most important component of our team. We use in-school and online marketing to get the word of our team out to students and to invite them to apply to join the team at the beginning of the year. We also encourage teachers and parents to mentor the team.

5.2 Marketing Mediums

Robot Demonstrations / Speaking Events

We travel to different events, demonstrate our robot, and speak to attendees about *FIRST*, the team, and robotics. Past events have included Delta Kelly, University Hills, North Hill, and Musson elementary school science fairs and assemblies, Boy Scout troop meetings, high school pep assemblies, demonstrations at freshman parent orientation, meetings with high school principals, presentations to the RCS School Board, and also a demonstration at the Rochester Public Library.

Imagery: Posters, Robot Graphics, T-Shirts, Flyers, Giveaways, etc.

Team imagery is an integral part of our marketing, allowing us to become more recognizable and memorable within the *FIRST* community. We strive to be cohesive in every aspect, from team t-shirts, to the website, to the robot's graphics. We create t-shirts for every regional event we attend and for the championship if we qualify. We also give out items at competitions, such as the ducks we are known for and team buttons. Our Marketing sub-team works during the *FIRST* season on designing these t-shirts and ordering and customizing the giveaways, or "swag".

Online Presence

We have an award-winning website (2011 *FIRST* Championship Best Website), AdamBots.com, that receives roughly 70 visitors a day and has received 40,000 different visitors from 150 countries. Additionally, we operate various social media accounts on Facebook, Instagram, Twitter, and YouTube. Using these tools, sponsor, competition, and community outreach information, as well as team news, is communicated to family, classmates, friends, and people in the community. In addition, our online presence helps build interest in *FIRST*, and enables us to communicate with other teams across the globe. We also have multiple resources on our website, including an automated scouting system which many teams use to help them in competitions.

Word-of-Mouth

Word-of-mouth is also relied upon to build interest in *FIRST* and our team. We use our community outreach activities to talk with people about our team and *FIRST*. Parents and students also spread the word about us to their friends, generating more interest. Ultimately we strive to have such a positive impact on everyone that more people will either choose to join us, sponsor us, and/or tell others the good news about *FIRST* and us!

6.0 Financial Plan

We focus on long-term financial sustainability to ensure success. Financial support comes from three different sources: sponsors, team member fees and contributions, and our Art & Apples Festival parking lot business. We have contingencies in place, such as leaving "seed" money for the following year, so that we will still be in a viable financial condition in the event that we lose a sponsor, fundraiser, or have some other event that results in a loss of funding. In our Continuity of Operations Plan (COOP) in the Appendix, we detail response plans for the loss of a sponsor or fundraiser.

6.1 Sponsors

Sponsors are the primary method in which we receive financial support. General Motors Global Product Operations, the Chrysler Foundation, R&G Drummer, Plex Systems, Inc, Wally Edgar Chevrolet, Valeo Thermal Systems, and TARDEC all currently sponsor our team through the Rochester Community Schools Foundation, a 501 (c) 3 non-profit organization that acts as our fiduciary. Each year we seek new sponsors by marketing our team and contacting potential sponsors. For example, we contacted General Motors, Plex, Chrysler and Wally Edgar Chevrolet and asked if they would be interested in sponsoring us. We market our team heavily as well to attract new sponsors.

6.2 Fundraising

Our team operates fundraisers throughout the year to further increase funding. In the summer, we conduct bottle and can drives to pay for OCCRA and provide petty cash. During this fundraiser, students collect empty bottles and cans donated in nearby neighborhoods and turn them in for cash at local stores. The money collected is used primarily to fund our OCCRA season.

6.3 Member Contribution

Students and mentors also contribute financially. Students help pay for transportation to events such as bus transportation during the OCCRA season and transportation to Michigan *FIRST* events. When we travel out-of-state for events, students and mentors pay for approximately half of the cost of travel and lodging. At the beginning of the season, students contribute to the budget through *FIRST* participation fees and they pay for their team shirts as well as any extra shirts or hoodies that they buy.

See Appendix: Continuity of Operations Plan (COOP)

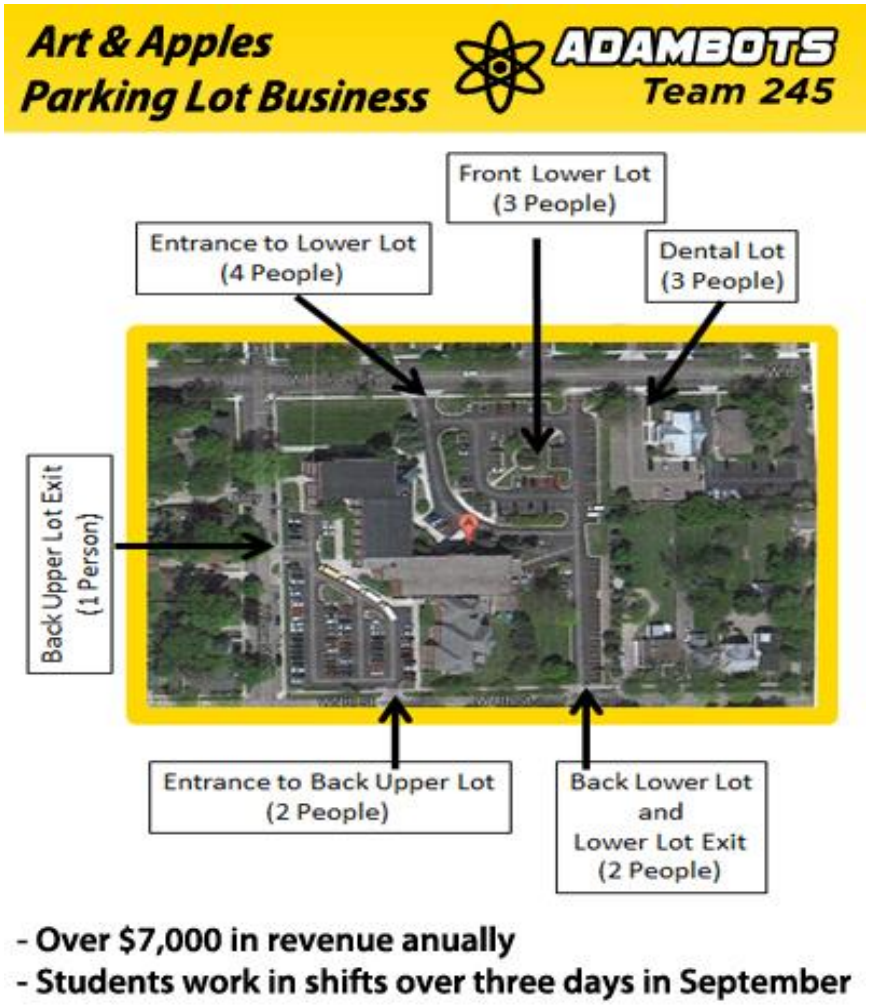
6.4 Parking Lot Business

Each September, the AdamBots operate a profitable parking lot business during a three-day arts festival, Art & Apples Festival, that is held in the local Rochester Park. This festival is a well-known tradition within the community and attracts thousands of people from a wide area.

Team members, mentors and parents work in shifts to direct and park cars in nearby parking lots surrounding the Rochester Community Schools administration building and an adjacent dental office. Festival attendees who wish to park in these lots are charged five dollars per car.

Students advertise our parking lots to drivers by holding signs and performing team cheers. Our goal is to sell as many spaces as possible and ultimately fill both lots.

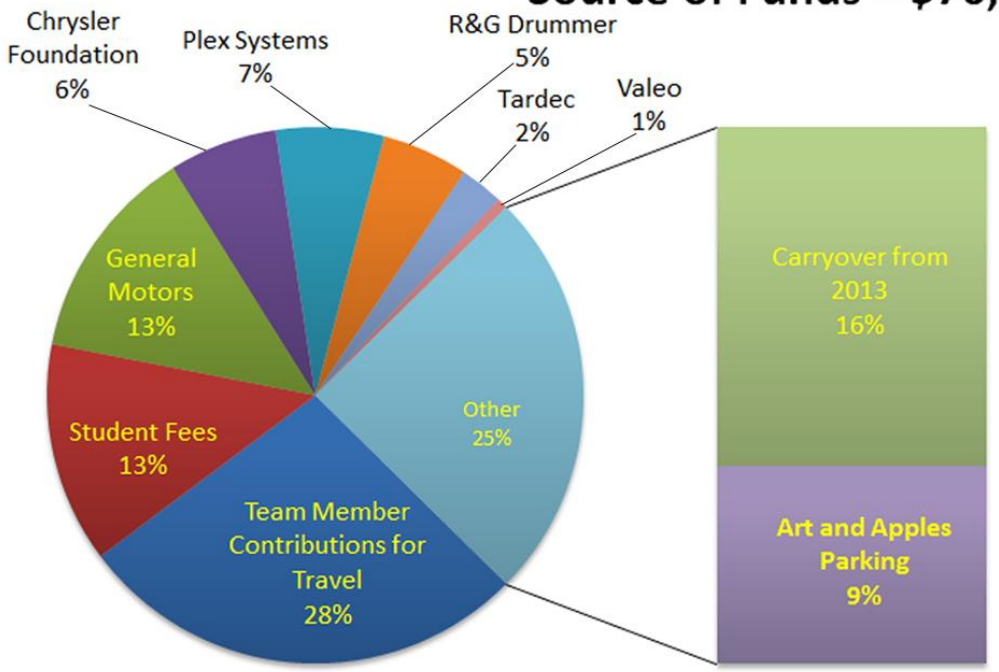
Ultimately, the parking lot business enables us to raise approximately $7000 each year to help cover team expenses. Because we wear team t-shirts or sweatshirts while working, this event also becomes a marketing opportunity through which we can further spread the word about *FIRST* and the AdamBots to the community, which increases our web of connections. The fundraiser is also a team-building exercise and a way for students and mentors to converge together before the OCCRA season begins.



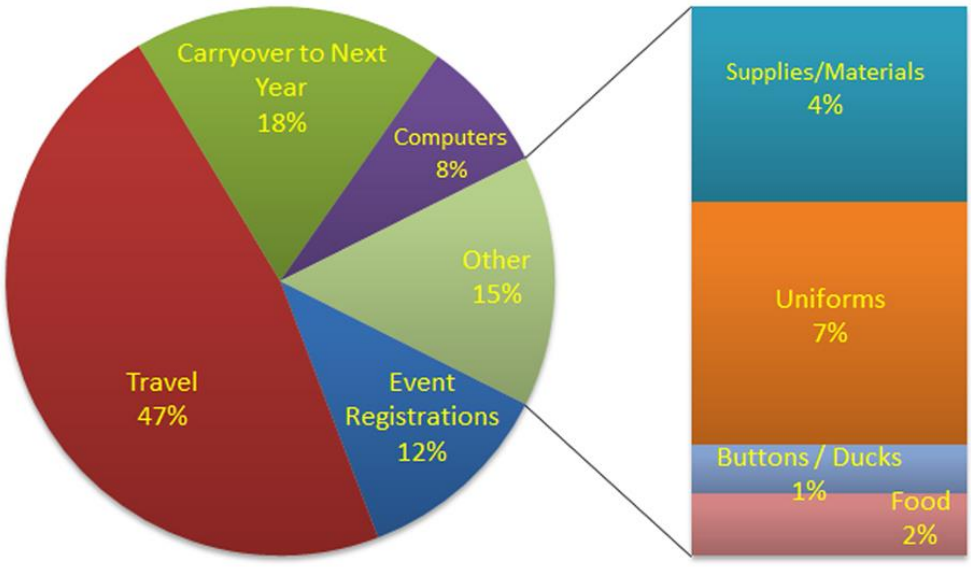
2014 Budget

ADAMBOTS Team 245

Source of Funds = $76,700



Use of Funds = $76,700



- Funds managed through the Rochester Community Schools Foundation 501 (c) 3

7.0 Appendix

FIRST Season Plan

- Use project management to stay on schedule to build robot in five weeks
- Practice for a week before bag and tag
- Build second robot
- Students and adults work together on defined sub-teams (engineering and business)
- Have enough money for all events, especially if we win and move on to the World Championship
- Share knowledge with LamBots

Results to Date

- Project management on schedule
- Sub-team process worked well
- Sponsors will pay registration fees for all events
- All students able to participate
- Information shared with LamBots

Actions Needed

- Conduct debrief meeting after Hub City to prepare for Michigan district competitions
- Schedule trip plans for next two district competitions

- Revise plan for next year
- Continue after *FIRST* events
- Continue community outreach
- Off-season fundraising
- *OCCRA* in fall

ADAMBOTS
Team 245

Competitive Analysis

Competitive analysis allows the AdamBots to recognize and evaluate our competition. This analysis is not limited only to other teams at competitions, but also includes analysis of other activities that compete for the time of team members and mentors, our greatest resources. We have two distinctive kinds of competitive analysis:

1. Analysis of other teams at competitions
2. Analysis of other activities that pull students and mentors away from the team

Competitive Analysis of Other Teams at Competitions

During the competition seasons, a scouting team is formed to help analyze other teams for their strengths, weaknesses, and to assess their potential as partners for elimination rounds. Each year, the scouting sub-team forms evaluation sheets which the team uses to gather information about teams during competitions. Data collected is used to select alliance partners in the event that the AdamBots are an alliance captain during the elimination rounds.

Competitive Analysis of Other Activities

There are many school and outside activities that compete for the time and talent of our students and mentors. The team realizes that we need to retain team members rather than lose them to other activities. Some of the activities which compete for the time of our students and mentors include:

- Jobs
- Other school clubs
- Church and community activies
- Family events
- Sports
- Homework
- Friends and peers that compete for time
- Parents not sure of the value of the team
- More exciting activities, games, etc.

We use a “Balanced Scorecard” to help us measure our success. On the “Balanced Scorecard” we have defined *Learning and Growth* metrics to measure student and mentor retention and satisfaction. Through consistent recognition, involvement, access to information, and mentoring activities, we believe that engaged and valued students will stay with the team. We also believe this is true for mentors.

We currently have twelve mentors who are parents of former AdamBots, and two mentors who are alumni. These mentors tell us they stay with us because we make it meaningful and fun. They also feel they can contribute to the mission and goals of the team, therefore helping us to be an ongoing success.

AdamBots Balanced Scorecard January 2014

We measure more than just financials in determining the success of our team.

Objective Type	*Measures*	*Targets*	*Supporting Initiatives*	*How are we doing?*
Learning and Growth Metrics				
Student Retention	Percentage of students who stay with team throughout the year	75% retention	Keep students engaged throughout the year	In 2014, the team has 75 students, a growth of 11 students from last year.
Student Satisfaction	Involvement with decisions	Involve students in robot design, build, programming decisions and in community outreach activities	Project management and team structure	Student captains and mentors working well together. Students also playing a lead role in the business planning process.
Student Satisfaction	Recognition	Based on student survey, ensure that 90% feel they receive positive recognition for their achievements.	Conduct surveys at the end of the *OCCRA* and the *FIRST* seasons	Student satisfaction good after *OCCRA*. Gathering bio information at start of *FIRST*. Will survey after *FIRST* season.
Team Satisfaction	Access to information	Based on survey, ensure that 100% of team knows where to find and how to access information critical to their jobs.	Share website information with team and review at weekly team meetings	Critical information is covered at team meetings, parent meetings, and also shared through emails and the website calendar
New Team Members	Number of new team members each year that stay with program	Ten new students and two new mentors a year	Communicate team/club information during the year. Members invite others to join.	Currently have 22 new students and five new mentors
Process Metrics				
Innovation	New process or technique used during the *FIRST* season	At least one new assembly, programming, controls, or drive system technique used during the *FIRST* season.	Attendance at instruction seminars in area. Students work with mentors on new techniques.	New computer to help C-RIO (Beaglebone). Used for new vision processing system, which uses rapidly pulsing IR LEDs to produce images and to not distract drivers. The differences between the images allows the robot to "see" the target.
Innovation	Process cycle time	Build robot is five weeks so you can practice	Project management and team structure	Currently on track to have robot built so we can practice at least two days before bag and tag.
Operations	Product quality	No major breakdowns	Robust CAD process and design testing	Too early to tell
Operations	Reliability and durability of robots	Very few repairs needed during the competition season including programming repairs.	Use of CAD in design process. Structural analysis and use of robust build techniques.	Too early to tell
Sponsor Metrics				
New Sponsors	Number of new sponsors in funding or in-kind support	At least one new sponsor each year	Ask students and mentors to talk to potential sponsors (neighbors, business colleagues).	U.S. Army TARDEC National Defense Educational Program and Valeo Thermal Systems are new sponsors this year.
Sponsor Retention	Number of sponsors retained from year to year	Keep 100% of sponsors from year to year	Sponsor thank you and recognition.	General Motors, the Chrystler Foundation, R&G Drummer, Plex Systems and Wally Edgar all retained as sponsors
Schools Recognition	Robotics recognized by schools as a valuable team/club	Team is recognized in newsletters and announcements	Communicate team information and success to schools and Community Schools Foundation	Numerous recognition articles on the *OCCRA* season. Won Rochester Parade float and was recognized on the TV and in the newspaper. GM team of the year in 2011. *OCCRA* Foundation Award winner from 2010 to 2013. Rochester Hills Mayor Proclamation 2011 and 2013.
Financial Metrics				
Financially viable	All costs covered with some money left to seed the next year	Obtain enough funds from sponsors to cover 100% of *FIRST* registration and *FIRST* robot parts costs	Work with existing sponsors through mentor support	General Motors paid for Michigan registrations and majority of Hub City registration GM, Chrysler Foundation, TARDEC and Plex funds paid for parts
Financially viable	All costs covered with some money left to seed the next year	Obtain enough funds from members to cover 100% of T-shirt costs	Money collected for T shirts	Costs all covered with participation fee
Cost Sharing	Travel costs shared by team members	At least 75% of cost to travel for *OCCRA* and 30% of the travel for *FIRST* shared by team members	Bus fees for *OCCRA* collected. Money collected for 30%+ of travel to Hub City Regional	Money collected
Asset utilization	Have computers available for programming and CAD	Use school computers for CAD. Have at least one dedicated computer for programming.	Art and Apples Festival parking lot funds used for new machines or tools.	Purchased lathe and mill for work room.

AdamBots Continuity of Operations Plan

How does the team continue to function and meet our business plan if something major happens to our plan?

Strategic Goal or Plan	Risk Assessment	Alternatives or Actions	Has this happened in the past?
Human Capital	Loss of School Teacher	Work with the school administration to find another teacher who is willing to work with the team. Provide volunteer mentors to help with the administration of the team.	In our history we've had several changes in teachers. In all cases, the school administration helped us find a replacement and we had to go through a training and restructure process. In 2010, Mr. Hildebrandt decided to retire. However he was willing to continue to be the school's official mentor. We approached school administration and they agreed to let him continue under a special arrangement.
Human Capital	Loss of Engineering Key Mentors	If we lose a key Engineering mentor, conduct a meeting with existing mentors and/or students to find a successor.	We have been very fortunate to have many of our engineering mentors stay with the team, but sometimes we lose a mentor when their student graduates.
Human Capital	Loss of Business Key Mentors	If we lose a key Business mentor, conduct a meeting with existing mentors and/or students to find a successor. Especially important to make sure we have a Business mentor trained to handle paperwork and travel arrangements.	We have been lucky to have Mrs. Drummer, our head Business mentor, on the team for many years to handle travel, team communications, school administration paperwork, and *FIRST* administration. When Mrs. Drummer eventually retires from this assignment, we will need to have a successor prepared to take over her responsibilities.
Human Capital	Separation of Stoney Creek from Adams	Work with the Stoney Creek H.S. Administration to form a new team. We are turning away students from Adams because the team is too large for our meeting rooms and build space.	The current students from Stoney Creek are "grandfathered" into the Adams Team. New Stoney Creek students will have to join the Stoney Creek team once it is formed. We have been working with the Stoney Creek principal on having them form their own team. They are currently looking at the *FIRST* Tech Challenge as a starting point instead of FRC.
Facilities	Loss of Build Location	If we lose the CAD room, approach school administration of Adams High to find another location. If this is not successful, search the Rochester Hills area for a sponsor that would support us by giving us a build location.	For years we built the robot at the Siemens VDO machine shop when they sponsored the team. When Siemens VDO was purchased, they stopped sponsoring the team and we lost our location. Since then, we have used the CAD closet and CAD room for our build, storage, CAD and programming work. To makea reduced workspace and a lack of sophisticated equipment feasible, designs are drawn in CAD before they are built, simple techniques are used to build the parts, and some parts are made by mentors with machining capabilities at home.
Equipment	Loss of Computers	Make sure programs and CAD drawings are back-up daily or as changed. Also make sure the programming software is available for uploading to another computer.	We had a computer hard drive crash in the past and lost our programming. Because it was not recently backed up, some of the programming had to be reconstructed.
Communications	Loss of Previous Documentation for Communications	Store major information on the website so many have access to it in case of a personal computer crash. Use cell phones for quick communications.	Our information on personal computers has been copied to various sources, such as our website and Dropbox, so no major information losses have occured.
Finances	Loss of Corporate Sponsors	If we lose a major sponsor, work with parents to contact additional companies. Also, make sure we have some money left over at the end of the year to at lease cover the Michigan District registration and robot build. Make strategic decisions on other items to stay within our budget to keep the team fiscally strong.	We lost several major sponsors in the past including Siemens VDO. To make up for these losses, we have gained at least one new sponsor each year, and work towards continuing that trend. We reassessed our plans including the elimination of out of state regionals and introduced the ≤50% payments for going to the World Championship events to compensate for the reduced funds.

2014 AdamBots *FIRST* Engineering Teams

	Program Leadership	Chassis	Ball Acquisition	Ball Shooter	Electrical & Electronics	Controls & Programming	Field	Fabrication	Team Mentoring	CAD, Machining & Tech Support
Mentors	Mr. Drummer Mr. Cesiel Mrs. Tymrak	Mr. McBride Mr. Hildebrandt	Mr. Merlo Mr. Clark Mr. Anthony Mrs. McBride	Mr. Savage Mrs. McGruder Mr. McBride Mr. Pirozzo	Mr. Sochanski Mr. Ripka Mr. Mead	Mr. Del Rose Mr. Micklas Mr. May	Mr. Markel Mr. Merlo	Mrs. McBride Mr. Hildebrandt Mrs. Tymrak	Mr. Cesiel	Mr. Torres Mr. Trachsel Mr. Slaby Mr. Mead Mr. Schuster
Team Leaders	Jason Merlo* Andrew McBride*	Anuja Dandekar	Michelle Abramczyk	Sydney Micklas	Robin Onsay	Tyler Del Rose	Maxwell Chappell	Vishnu Rengaraj	Andrew McBride	
	*=Team Captain	Miles McGruder	Diego Toral	Max Chappell	Haden Wasserbaech	Nathan Fenner Curtis Fenner	Christine Weng	Brendan Treanore		
CAD		Nick Start Phillip L-M Nick Eckardt McKinnon Hay	Austin Braun Curtis Fenner Max Nakfoor Joey Matusik Justin Ripka	Zach Sullivan Nathan Fenner Corey DeGasperis Tommy Bejin	Haden Wasserbaech Tommy Bejin	Jason Merlo Debjit Sarkar Simon Sun Robin Onsay Haden Wasserbaech Roi Orzach	Sean Hennessee Jeremy Start Rowan Barry Brian Savage Dale Fultz Nick Start Andrew Briell Jacob Wohlschlegel	Debjit Sarkar Alex Johnson Ashley DelRose Nadya Barghouty Phillip Weber Kamden Little Roi Orzach Sydney Micklas Gabby Fung Annie Zhao Diego Toral		
Team Members		Erik Hicken Melanie Keithly Kathryn Cesiel Nina Janies Tyler DelRose	Annie Zhao Joel Bush Ana Torres Megan Sochanski Jizhou Zhang Justin Ripka Zack Schafrick	Josh Durham Pavan Patel Gabrielle Fung Ahad Khan Ky Sreenivasan Dylan Anthony Miles Malanoski Haden Wasserbaech	Brendan Treanore Tommy Bejin Ahad Khan Tyler Del Rose Dan Alspach Zack Schafrick Kenny Mead Dylan Anthony Pavan Patel Leo Gomez Nadya Barghouty Maxwell Chappell	SPECIAL PROJECTS Katie Bueltel Ashley DelRose Evan Casey Pavan Patel Josh Durham Grace Nguyen Gabrielle Fung Leo Gomez				
Team Responsibilities	Lead overall program including schedule, priorities, and resources	Design, assemble, and test mechanical systems - most activities on "2nd shift"			Design, fabricate, assemble and test electrical & electronic system	Design, program, calibrate and test control systems	Design & fabricate field elements & assist with setup	Fabricate & assemble mechanical components - mostly "1st shift"	Provide mentoring to other teams	

2014 AdamBots *FIRST* Business Teams

	Program Leadership	Animation Team	Scouting Team	Marketing Team	Business Planning Team	Chairman's Team	Digital Media Team	Photo/Video Team	Outreach Team	Craft Services
Mentors	Mr. Drummer Mr. Cesiel Mrs. Tymrak	Mr. Trachsel	Mr. Drummer	Mrs. Twarozynski Mrs. Sochanski	Mrs. Cesiel	Mr. Drummer Mrs. Del Rose	Mr. Sheets Mrs. Twarozynski	Mr. Sheets	Mrs. Alspach	Mrs. Markel
Team Leaders	Jason Merlo* Andrew McBride*	Mia Swanton	Katie Bueltel	Joe Bolewitz	Brian Savage	Darpan Sodhi	Grace Nguyen	Cameron Johnson	Kaitlyn Whitefoot	
Team Members	*=Team Captain	Rowan Barry Ryan Handley Ky Sreenivasan Ana Torres Jacob Wohlschlegel Jizhou Zhang Simon Sun Kuvam Shahane	Anuja Dandekar Michelle Abramczyk Tyler DelRose Gabby Fung Ky Sreeivasan Kuvam Shahane Joel Bush Josh Durham Annie Zhao Daphne Onsay Debjit Sarkar Roi Orzach Nina Janies Nadya Barghouty Andrew McBride Max Chappell Pavan Patel Ryan Handley	Kaitlyn Whitefoot Katie Bueltel Grace Nguyen Cameron Johnson Mia Swanton Ryan Handley Gabby Fung Megan Sochanski Nina Janies Ashley DelRose Libby Bolewitz Kathryn Cesiel Darpan Sodhi	Joey Bolewitz Cameron Johnson Nick Eckardt Corey DeGasperis Ryan Handley Libby Bolewitz	Michelle Abramczyk Cameron Johnson Annie Zhao Gabby Fung Ky Sreenivasan Ashley DelRose Grace Nguyen Katie Bueltel	Kaitlyn Whitefoot Corey DeGasperis Nathan Fenner Curtis Fenner Joey Bolewitz Cameron Johnson Darpan Sodhi Brian Savage Rowan Barry Libby Bolewitz Megan Sochanski Nina Janies Daphne Onsay Ashley DelRose Simon Sun Christine Weng	Kaitlyn Whitefoot Dan Alspach Ethan Martin Joey Bolewitz Andrew Briell Ahad Khan Ashley DelRose	Jack Person Joey Bolewitz Annie Zhao Katie Bueltel BASES Jack Person Cameron Johnson Nina Janies Annie Zhao
Team Responsibilities		Development and use of animation	Game strategy input, scouting of other teams on field, game statistics	Materials, PR, letters, some presentations	Documentation of team planning and development including update and submission of Business Plan	Prepare for Chairman's presentations and organize team Chairman's programs	All social media including updating team website	Visual documentation of team events, publication of videos and photos	Set up outreach activities and prepare presentations for programs	
	Lead overall program including schedule, balancing of priorities and resources									

AdamBots Team 245

Robotics Team Code of Conduct and Student Contract

All students will know, understand and comply with this Code of Conduct and *FIRST* team policies of fair play and Gracious Professionalism™.

All students will comply with reasonable requests made by teachers, engineers and team coaches at school, at all *FIRST* competition sites and any *FIRST* related activities.

All *FIRST* safety precautions must be followed at all times, including the proper use of safety goggles in all specified areas.

Prohibited behaviors during any and all Team related activities:

- Inappropriate language toward adult and student team members
- Disruptive or inappropriate conduct
- Arriving late for group activities and travel
- Inappropriate dress/attire (revealing or sexually suggestive clothing, clothing that has any reference to alcohol, drugs, sex or weapons)
- Noncompliance with curfew and bed check rules
- Leaving premises or assigned hotel rooms without permission from adult team member
- Romantic involvement involving physical contact may not take place during Team activities.
- Harassment of any type, including sexual, gender-based, or ethnic slurs.
- Vandalism of any type at school, hotels, venues or at any Team related locations.
- Using, possessing, selling or being under the influence of any and all illegal drugs, controlled substances, alcoholic beverages, or tobacco products (Violations of drug, alcohol and tobacco rules will result in immediate travel home, at parents' expense.)

I agree that I understand the information presented in the Team Commitment Expectations and understand the requirements outlined in this code of conduct. I understand that I must act responsibly and respectfully at all times, and that schoolwork comes before team work. I must maintain good academic standing in order to remain on the team.

Student Signature: _____ Date:_____

Parents/Guardians

I understand that my student has chosen to be an active part of this team, and that while any level of participation is encouraged, my student must meet the team requirements in order to participate in team travel. I also understand that I am part of those requirements and agree to attend the parent information meeting, at least one team activity, and provide at least one meal for the team during the build season. I understand that parents can be a vital part of the team, and are a big help in getting many of the team activities accomplished. I will do my best to support my student and the team in this endeavor.

Parent Signature: _____Date: _____

Team Member Commitment Expectations

AdamBots team members are expected to adhere to the following team commitments both within the school building and when in the community:

Team members shall commit to:

- Behaving in a positive and professional manner at all times
- Following all safety regulations (safety glasses, lifting, etc.)
- Treating oneself, other team members, team mentors, parent volunteers and visitors with dignity and respect
- Respecting and showing responsibility for the resources made available to all students on the team
- Using one's time wisely and in service to the goals of the team
- Cleaning up after themselves at all team functions (leave place cleaner than you found it),
- Actively participating in all aspects of team functions (meeting, training, build, fundraising, community service, and social) to productively support the team's mission statement
- Unless it is an emergency, refrain from using cell phones during team events
- Participating in robotics competitions and not playing cards, video games or listening to music devices through headphones unless at lunch time or with permission from the adult coach
- Presenting oneself professionally by wearing the team's uniform and being prepared at all required events
- Maintaining good academic and behavioral standing within the high school

Alumni

We have been extremely successful in our business planning mission of inspiring our members in the areas of STEM and business. Many of our alumni have gone on to study and work in these fields. Listed below are AdamBots alumni and the colleges they went on to attend.

Class of 2013

- Margherita Bigossi (Liceo Scientifico Lazzaro Spallanzani in Italy)
- Ben Bray (University of Michigan)
- Eric Celerin (Michigan Technological University)
- Eric Hennessee (Oakland University)
- Tanay Patel (Michigan Technological University)
- Elizabeth Person (Allegheny College – Pennsylvania)
- Jordan Phillips (Oakland University)
- Steven Ploog (University of Illinois at Urbana-Champaign)
- Jonathan Zarger (University of Michigan)

Class of 2012

- Ryan Cesiel (University of Michigan)
- Kieran Cooper (Oakland Community College)
- Becky Everson (University of Rochester)
- Matt Juriga (Ferris State University)
- Ryan Rosenau (Kettering University)
- Chris Santella (Marquette University)
- Danielle Twarozynski (Oakland Community College)

Class of 2011

- Emily Bolewitz (Penn State University)
- Matt Brisson (University of Windsor)
- Edna Chiang (University of Michigan)
- Ian Cosgrove (Michigan Tech University)
- Yutaka Iwasaki (Michigan State University)
- Dean Keithly (Oakland University)
- Jerry Lin (University of Michigan)
- Drew Markel (Michigan Tech University)
- Sidd Menon (Oakland University)
- Duy Mo (University of Michigan)
- Alex Shultz (Oakland Community College)
- Garret Sochanski (Oakland University)

Class of 2010

- Eduardo Cerame (University of Michigan)
- Mark Derry (Oakland Community College)
- Chris Greene (Kettering University)
- Lucas Mitchell (University of Michigan)
- John Watkins (Oakland University)
- Jack Wink (University of Michigan)

Class of 2009

- David Cesiel (University of Michigan)
- James Lindsay (Arizona State)
- Quentin Sheets (Purdue – North Central)
- Brett Garstick (Michigan State)
- Matt Li (Michigan State)
- Sean Losinski

Class of 2008

- Anthony Curley (Michigan State)
- Bhajanpreet Kohli (University of Michigan)
- Danielle Smith (Grand Valley)
- Jonathan Immers (Kettering)

Class of 2007

- Patrick Pannuto (University of Michigan)
- Braden Leinbach (Michigan State)
- Caitlyn Bolewitz (Grand Vally State)
- Kevin Kozlowski (University of Michigan)
- Kevin Tom
- Nolan Wyatt (Eastern Michigan)
- Patricia Schuster (University of Michigan)
- Tanya Das (University of Michigan)
- Kevin Schalte (University of Michigan)
- Kevin Huang (University of Michigan)
- Emily Thomas (University of Michigan)
- Scott Theuerkauf (US Air Force Academy)
- Scott Walls (University of Michigan)

- Chris Park

Class of 2006

- John Dong (MIT)
- Alexander Piazza (University of Michigan)
- Bhajneet Kohli (University of Michigan)
- Grace Gahman (Oakland University)
- Jeremy Clemens
- Katie Pendock (Oakland University)
- Stephanie Roth (University of Michigan)
- Ye He (University of Michigan)
- Fiona Turett (Washington Univ. St. Louis)
- Chris Lee

Class of 2005

- Richard Schuster (University of Michigan/Oakland University)
- Katrin Augustyniak (Oakland University)
- Matt Benoit (Oakland University)
- Jenny Stein (Oakland University)
- Hayley Lawson (Oakland University)
- Stephen Krause (University of Michigan)

Class of 2004

- Riva Das (Duke/Penn State)
- Danny Demp (University of Michigan)
- Carrie Hauser (Eastern Michigan/Indiana State)
- Jason Lewer (Michigan State)
- Jim Liu (University of Michigan)
- Katie Olson (University of Michigan)
- David Pirozzo (Oakland University)
- Eric Plagens (Wayne State)
- Jeff Rogers (University of Michigan)
- Bill Stoffel (University of Michigan)

Class of 2003

- Adnan Asif
- Christian Catalan (University of Michigan)
- Alex Drummer (Northen Michigan/Wayne State University)
- Carl Fristad (Minneapolis College of Art and Design)
- Edward Hong (Oakland University)
- Dan Krause (University of Michigan)
- Bin-Bin Mao (University of Michigan)
- John Morgan (University of Michigan)
- Steve Moy (Michigan State)
- Hunter Nie (University of Michigan)
- Lauren Olson (Michigan State)
- Kevin Smith (Michigan State)
- Kaylyn Soller (Michigan Tech)
- Jason Yee

Class of 2002

- Amanda Armstrong
- Andrea Brown
- Joe Gothomy
- Brian Hamburg (Michigan State)
- Nathaniel Johnson (Oakland University)
- Kevin McCulum
- Max Peters
- Mou Sangupta (University of Michigan)

Class of 2001

- Mike Albertus
- Kirsten Fristad (Macalester College/University of Oslo)
- Nicholas Goodard
- Jeremy Gouldy
- Vicky Wilson (Albion College/Purdue)

Class of 2000

- Karen Ault
- Lauren Davenport
- Cindy Drebus
- Andrew Drummer (Carleton College/Oakland University/Wayne State)
- David Hockey (University of Michigan)
- Dan Hulme (University of Michigan)
- Niko Kanagawa (Albion College)
- Nicole Nelson
- Ben Palmer (Case Western)
- Bryan Wilson (Western Michigan)

Class of 1999

- Paul Albertus (University of Michigan/Berkley)
- Philip Smith
- Edward Vollenweider

- Robert Gable (Central Michigan)
- Nicholas Czechowski
- Derek Herbert
- Ken-Pei Leung (Michigan Tech)
- Nicholas Reeck (University of Michigan)
- Joseph Pirozzo (Oakland University)
- Sean Hallid

Awards

Award Quick Facts

- 45 *FIRST* Awards
- 1 *FIRST* Chairman's Regional Award
- 1 *FIRST* Woodie Flowers Award
- 8 *FIRST* District/Regional Championships
- 1 *FIRST* Division Championship (and Einstein appearance)
- 82 *OCCRA* Awards
- 4 *OCCRA* Foundation Awards
- 4 *OCCRA* Championships
- 3 *OCCRA* Women's Tournament Championships

FIRST Awards

2014

Team Spirit Award – Hub City Regional
Innovation in Control –Hub City Regional
Semi-finalist –Hub City Regional
Entrepreneurship Award –Howell District
Semi-finalist –Howell District

2013

FIRST Safety Animation Award
Champions – Troy District
Finalists – Grand Blanc District
Champions – Palmetto Regional
Quarter Finalist – Michigan State Championship
Industrial Design Award Sponsored by GM – Michigan State Championship
Quality Award – Troy District
Entrepreneurship Award – Grand Blanc District
Quarter Finalist Galileo Division – World Championship

Off-Season Events

Finalists – MARC Competition
Champions – Bloomfield Girls Robotics Competition
Champions – Michigan Science Center Competition
Quarter Finalists – Indiana Robotics Invitational Competition

2012

Winner – Indiana Robotics Invitational
Quality Award – Niles District
Best Website Award – Troy District
Entrepreneurship Award – Alamo Regional
Entrepreneurship Award – Michigan State Championship
Finalist – Michigan State Championship
Best Website – Michigan State Championship
Best Website Award – Alamo Regional
Entrepreneurship Award – Troy District

Off-Season Events

Finalists – MARC Competition
Champions – Indiana Robotics Invitational

2011

Best Website Award – Championship
Finalist – Michigan State Championship
Best Website Award – Troy District
Imagery Award – Detroit District
Best Website Award – Alamo Regional
General Motors *FRC* Team of the Year
Entrepreneurship Award – Troy District
Best Website Award – Detroit District
Finalist – Detroit District
Finalist – Alamo Regional

Off-Season Events

Finalists – MARC Competition
Champions – TARDEC IGVC invitational

2010

Imagery Award – Kettering District

Off-Season Events

Finalist – TARDEC IGVC Invitational

2009

Finalist – Lansing District
Champions – Kettering District
Motorola Quality Award – Kettering District
Best Website Award – Kettering District
Motorola Quality Award – Lansing District
FIRST Teacher of the Year Award (WWJ) – Mr. Hildebrandt

Off-Season Events

Champions – MARC Competition
Champions – TARDEC IGVC Invitational

2008

Best Website Award – Detroit Regional
Best Website Award – Great Lakes Regional

2006

Chairman's Award – Davis-Sacramento Regional
Woodie Flowers Award – Mr. Hildebrandt – Davis-Sacramento Regional

2005

Judge's Award – Detroit Regional
Champions – Detroit Regional

Champions – Davis-Sacramento Regional
Champions – Archimedes Division – World Championships
Finalist – West Michigan Regional

2003

Champions – West Michigan Regional
Champions – Midwest Regional

OCCRA Awards

2013

2nd Place – Adams High School
Judge's Award – Waterford Kettering High School
Spirit Award – Birmingham Seaholm High School
3rd Place – Clawson High School
Quality Award – Adams High School
1st Place – Birmingham Seaholm High School
Technical Excellence Award – Brandon Fletcher Intermediate School

2012

Foundation Award
Semi-Finalist – County Championship at Holly
3rd Place – Birmingham Seaholm
1st Place – South Lyon
2nd Place – Waterford Kettering
1st Place – Rochester
#1 Seed – County Championship at Holly
Spirit of the Competition Award – County Championship at Holly
Spirit of the Competition – Birmingham Seaholm
Beautiful Bot Award – South Lyon
Technical Excellence – Waterford Kettering
Strategic Design Award – Rochester

2011

Foundation Award
Semifinalists - County Championship at Holly
1st Place – Birmingham
VEX Award – Brandon
Spirit of the Competition Award – Roeper
Strategic Design Award – Royal Oak
#1 Seed – County Championship at Holly
Quality Award – County Championship at Holly
3rd Place – Brandon
1st Place – Roeper
3rd Place – Royal Oak

2010

Foundation Award
Strategic Design – County Championship at Holly
Champions - County Championship at Holly
Spirit of the Competition Award – Birmingham

Spirit of the Competition – Roeper
2nd Place – Roeper
Technical Excellence Award – Waterford
2nd Place – Waterford

2009

Beautiful Bot Award – Walled Lake
Quality Award – Birmingham Seaholm
VEX Award – Diversity (Royal Oak) Tournament
Spirit of the Competition Award – Waterford Kettering
Technical Excellence Award – County Championship at Holly
Champions – County Championship at Holly
Foundation Award Finalist – County Championship at Holly

2008

Spirit of the Competition Award – Walled Lake
Teacher of the Year Award – Mr. Hildebrandt
Judges Award – County Championship
Semi-Finalist – County Championship
Safety Award
Judges Award – Birmingham Seaholm

2007

Judge's Award – Walled Lake
Quality Award – County Championship
Foundation Award Finalist – County Championship

2006

Best Play of the Day – Walled Lake
Quality Award – Women's Tournament
Spirit of the Competition – Detroit Catholic Central
Spirit of the Competition – County Championship
Champions – County Championship

2005

Judge's Award – Hazel Park
Semi-Finalist – Women's Tournament

2004

Spirit of the Competition – Holly
First Place – Berkley
Best Play of the Day – Berkley
Champions – County Championship
High Score – Women's Tournament
Strategic Design – Women's Tournament
Champions – Women's Tournament

2003

Second Place – Berkley
High Score – Berkley
Judge's Award – Holly
Champions – Women's Tournament
Spirit of the Competition – County Championship
Semi-Finalist – County Championship
Spirit of the Competition – Women's Tournament
General Motors Technical Excellence Award – Lamphere

Spirit of the Competition – Berkley

2002

Spirit of the Competition – Rochester
Champions – Women's Tournament
Judge's Award – Women's Tournament

2001

Spirit of the Competition – West Bloomfield
Spirit of the Competition – Troy
Spirit of the Competition – County Championship

2000

Spirit of the Competition – Brandon
Best Play of the Day – Brandon