Setting Up Shop

*MoroTorq's **purpose** and **intent** last year was to **formulate necessary goals** and apply them to build a foundation that would facilitate the success of the team. This year, the team hopes to **continue building** upon basic fundamentals and continue **to set up shop**.*

In its second year they, with much success, have further established robotics and technology-inspired programs not only in their high school, but in the elementary and middle schools as well as in the community.

Team 1515 started out as a small group of students interested in building robots, but it has developed into much more. Now in its second year, Team MorTorq has almost doubled in size, and has fostered an interest in science and technology not only in students involved in the program, but also in children and adults throughout the community.

Meeting Team 1515

Team Name: MorTorq
Robot's Name: Killer Katie
Years in FIRST: 2
Total Hours Spent: 5022

Jump-start *(pre-Kickoff)*:
-several school recruitment meetings
-leadership appointment elections
-2 weekend outings (CSUN 10/05, Post Season Scrimmage 11/05)

Team Composition:
-66 Total members
-6 freshmen, 18 sophomores, 12 juniors, 30 seniors
-24 Girls, 42 Boys

Team Break Down:
-Building and Design (34)
-Business and Writing (15)
-Animation (12)
-Programming (5)
-Support: 7 parents, 2 faculty advisors, 8 mentors, 1 non-technical professional

-filling the shed-

"They really have done an incredible job this year, especially, considering they didn't get a teacher until the day before kickoff. Moreover, I'm very impressed with their outstanding community efforts"

Dr. Dan Steponosky, BHHS Principal/Team Advisor

In its rookie year Team 1515 started out as a modest group of 35 students but has matured into a **productive organization** of over 60 members. In its second year, Team MorTorq has **doubled in size** and has fostered interest in science and technology within the community as well as in the student body.

This year, team 1515 will **build upon** those basic fundamentals and continue to set up shop. Mortorq has established additional robotics related programs in the high school as well as local elementary and middle schools; all while continuing to develop the successful high school based building division. From being technical advisors to faculty at the school, to mentoring 6th, 7th, and 8th in a VEX tournament, Mortorqers have become strong community activists.

The future of the Beverly Hills robotics program is dependent upon the commitment and organizational skills of its members. Semi-monthly newsletters and weekly e-mail updates are sent to team members, sponsors, and friends. Additionally, pre-season weekly leader meetings were held to organize resources and prepare for the building season. A complex attendance system was established to track the time commitment of every member on the team. In weekly meetings, the "Sweet 16" team members were recognized; the sixteen names that appear on the list are ranked according to time commitment. This system **helps objectify** the selection process for the traveling team as well as establishing a degree of protocol to be used in the future.

-charging the batteries-

Over 75 parents, school faculty members, and community leaders attended MorTorq's second annual Spark Woodfire Grill fundraiser on February 16, 2006. Organized by Sloane Trugman and restaurant owner Elizabeth Chait, the event was a huge success and contributed to the team's publicity. With one school board member and six school faculty members present, they celebrated both the birthday of their team coach, Mr. Schmalzbach, as well as unveiling this year's robot, "Killer Katie." MorTorq earned $2400 from the event. Earlier in the year, the team held three small fundraisers including MorTorq's second fundraiser at Coldstone Creamery, earning nearly $500, and a successful Domino's Pizza coupon card fundraiser earning $1000. They also sold white MorTorq T-shirts on the team website and in the ASB student store.

In order to relieve the stress of the build season, the Mortorqers made up a unique dancing game using this year's game ball. They call it "Dance Ball." Created by freshman Jesse Carmona, "Dance ball is a crazy, weird activity comprised of sleep deprived kids who dance to music with balls," describes senior Adir Bababeygy; "it really re-charges our batteries and gets us pumped to continue working on the robot" claims business captain Sloane Trugman. Treasurer and Safety Captain, junior Jordan Istrin, held workout sessions to keep the team energized and in shape. Even the team coach was occasionally spotted doing push ups in the hallway and pull ups in the garage.

-cutting the ribbon-

The Beverly Hills High School Robotics Team has greatly improved this year through the use of new tools and a boosted partnership with Hawthorne High School.

Step-by-step, team MorTorq is gaining community recognition. The Beverly Hills television channel, KBEV, has done several reports on the progress of the robotics team throughout the season and is constantly interested in the team's progress, support, and future. Moreover, the Beverly Hills High School newspaper, *Highlights*, has also been monitoring the progress of MorTorq, and has included brief articles in their issues. The robotics team has also been featured in two local papers, *The Beverly Hills Courier* and *The Beverly Hills Weekly*, and will be documented again in the future.

This is the second year that Team MorTorq has a website that is accessible and easy to use. On the site, important dates, team portraits, thank you's, and more, are found so people are more informed about team 1515's where-abouts.

"Watching this outstanding group of young men and women as they constructed this year's robot, I was amazed to find that even compared to last year, they have improved, matured, and continued to exceed my expectations and hopes for this year's team and the futures for the team."
-Myra Gabbay, parent

"My FIRST experience has been a blast! As a freshman I have learned a lot about the engineering field and how wonderful and important it is to the world through my first hand experience and impact that it has had on my team, my peers, and my community. I have realized now how much that getting a hands-on engineering experience can help the world of science and technology, become a better place."
-Jesse Carmona

-tightening the screws-

Community Outreach

To achieve its goal of establishing a perpetuating robotics program in the Beverly Hills schools, Team 1515 has been tightening its screws since the end of last season. Since then, the team has made the Beverly Hills and FIRST communities aware of their extensive progress. From presenting in front of the Associated Student Body, PTSA, the Board of Education, and the City Council, team MorTorq has made presentations about their own robotics operation to further the recognition of their goals and achievements.

The BH Robotics' community outreach and "Engineering Day" team is designing a day of engineering, technology, and science events for the community. There will be a VEX robotics competition with four teams comprised of Beverly Hills middle school students. The event will also host a FRC mock competition with participants from local southern California teams. A silent auction will be held to fund the community outreach division of BH Robotics and a raffle will raise money for Muscular Dystrophy, a disease afflicting an animation member of the team. This fun-filled, family event will be funded and hosted by Team 1515.

The middle school robotics students involved in the VEX program will have ten weeks prior to the Engineering Day to build their robot. The capture the flag theme of this year's game was created and developed by the MorTorq VEX division. The students involved are learning the complicated "systems engineering process" as well as the same C programming used by high school students.

The team's involvement in the Techno-Tainment summer camp convinced the director to utilize the new Radioshack VEX system in his camp curriculum. MorTorq is helping implement the program in the 2006 summer camp. They will also be providing their services as they help coordinate and teach at the camp. They can't wait to see the faces of the little kids light up as they submerge themselves in the world of science and technology.

"The game was designed to expose middle school students to the rewarding VEX systems as well as train them to succeed in the FIRST environment. We hope they will become adjusted to the FIRST atmosphere and will join the team in the future," says co-leader Eli Chait. Team 1515 hopes the day will help community members recognize the MorTorq name in the future and will convince students in the area to join the local FIRST high school teams.

This event is the highlight of the team's community outreach division. Team leaders are also helping Mercedes Benz and the Beverly Hills Education Foundation organize the 13th annual Classics for Charity Car show. They are creating flyers, banners, and are even the principal members involved in creating the ad program. The team members have been rewarded with expensive Mercedes parts for their cart, robot, and control panel.

-sharpening the tools-

Preparing for Building

Since last year's competition, Team MorTorq has been busy with numerous community activities. Directly following the competition, team members participated in the JPL Open House and displayed their robot at an elementary school open house to spread the message of FIRST. Members of the team recruited young elementary school students at a Techno-Tainment summer camp— a camp for elementary students who show an interest in technology. During the six week summer camp, members of MorTorq stressed the importance of safety as they displayed the robot and showed a 5 minute video about FIRST and its applications in every day life.

In order to sharpen its "tools", team 1515 began preparing new students for the intense six week building season. Robotics leaders held a building workshop to train students to safely use power tools and other non-powered equipment. They used a complex "systems engineering" process to design a cart and go through the steps that would be used at kickoff. A month later, they attended the Southern California Regional Robotics Federation "Fall Classic" to expose members to the FIRST program and competition atmosphere. At the "Fall Workshop", held at California State University at Northridge, MorTorq members learned important concepts to be used later in this year's game, including sensors, programming, and team organization. They even prepared electronics and wiring members to make jeopardy buzzers for Beverly Hills High School teachers.

In both its first and second years MorTorq earned the prestigious NASA grant as well as a valuable partnership with Walt Disney Imagineering and team 207 (Hawthorne High School). With such sponsors and mentors, they have been inspired to approach more corporations for further financial and mechanical support. Thus, team MorTorq approached and received sponsorship from MOOG Aircraft Group and Mercedes-Benz of Beverly Hills. De Murr from WDI comments, "I think we've gotten to know each other better and everyone [at WDI] is very excited about the way that you've pulled the team together this year, and you're future successes look very optimistic." The bonds that have been formed with the older and newer sponsors have help connect the team.

Mortorqers give elementary students the chance to act as the Human Player-- an integral part of our strategy for last year's game.

In addition to the financial and technical support from these sponsors, Senior Stephanie Yung convinced three JPL engineers, including her father, to help the team during the build season. The cooperation of members of MorTorq with the JPL, WDI, and Moog mentors helped to instill the values of partnership that FIRST esteems.