



## Building A Foundation



As a first-year team, gaining the necessary experience, making important contacts, and setting ground-breaking precedents are essential for our success in future years.

Thus, for this year's Chairman's Award submission, Team 1515 chooses as its theme, "**Building A Foundation.**" This phrase embodies the challenge, the hard work, but most importantly, the excitement that creating a U.S. FIRST Robotics team entails.

Each team member carries with him the knowledge that we are not only building something unique and special for ourselves but also for the future students of Beverly Hills High School.

### Introducing Team 1515

Team name: MORTORQ

Robot name: Norman-1 (named for our school mascot)

Getting started (before Kickoff):

- 35 mass e-mails
- 22 school meetings
- 3 weekend outings (Hawthorne 10/04, Chatsworth 10/04, CSUN Workshop 11/04)
- 5 possible team names thrown out before "MORTORQ" was chosen
- Set up in new robotics Room 191
- Wiring practice on team go-cart

Team composition:

- 40 members (16 girls)
- 2 freshmen, 9 sophomores, 21 juniors, 8 seniors

Team structure:

- Building and Design (19)
- Programming (4)
- Animation (9)
- Business and Writing (8)
- Support: 4 parents, 6 faculty advisors, 6 mentors

*"We hope our participation in this program gets more people interested in science and engineering."*

**Jenny Liu**  
**MORTORQ Co-captain**

### – drawing up plans –

*"When we first met with the Beverly faculty, it seemed like there was tremendous support from the school, students and mentors, and had the makings of a great relationship."*

**Mike Gustason, Walt Disney Imagineering Engineer**

### Robotics team impacts high school curriculum and budget

General community interest in U.S. FIRST Robotics began over two years ago, with school board member **Dr. Myra Demeter** suggesting the program as the perfect complement to our high school's new Science and Math Building.

Early this year, **Principal Dan Stepenosky** contacted local principals for information about FIRST, with **Hawthorne High School** (Team 207) responding. Interested students from Beverly Hills High, excited chemistry teacher Charles Lee, team members from Hawthorne, and representatives from Hawthorne's (and now, our) sponsor **Walt Disney Imagineering** met in October 2004. Shortly thereafter, Team MORTORQ was born.

From October 2004 to February 2005, four presentations introduced Team MORTORQ to students and parents of Beverly Hills High, school board members, and Beverly Hills City Councilmen, paving the way for curriculum and budget changes district-wide. The high school administration is currently exploring the addition of an engineering and robotics class for next year. According to Principal Stepenosky, "This is a unique opportunity to reinvigorate the science curriculum."

Fittingly, the FIRST concept of **Gracious Professionalism** is complemented by our district-wide character education program, "The Beverly Hills Way," whose five character attributes are an integral part of our team's principles.

**The  
Beverly  
Hills Way**

- **Respect**
- **Responsibility**
- **Integrity**
- **Caring**
- **Citizenship**

**"The Beverly Hills Way" is posted around campus.**

By  
**constructing**  
important  
partnerships  
with the media,  
the city of  
Beverly Hills,  
and local  
businesses,  
Team 1515 is  
spreading the  
message of  
FIRST and  
**building a**  
**foundation** for  
the future.

## Fundraising dinner succeeds through partnership

Over 75 parents, school officials, and community leaders attended our fundraising dinner held at **Spark Restaurant** on Jan. 29, 2005. Team member Sloane Trugman partnered with restaurant owner and **robotics parent Elizabeth Chait** to set up the event. “This was a great learning experience for Spark,” Chait said.

With three board of education members and our high school principal in attendance, members of MORTORQ presented information about U.S. FIRST Robotics. We garnered \$850 from the dinner and \$1,600 in donations, including \$1,000 from **Dr. Gary Hoffman**, who stumbled upon our fundraising event with no prior knowledge of FIRST and was impressed by the presentation. Dr. Hoffman also volunteered to help with the business and fundraising aspects of next year’s team.

MORTORQ also raised money through a school-wide candy sale in December 2004.

## Team 1515 sponsors FIRST Lego League at middle schools

To reach out to the community, Team MORTORQ is introducing FIRST Lego League teams at the Beverly Hills middle schools through partnership with the City of Beverly Hills Recreation and Parks Department. Scheduled for initiation in September 2005 at **Horace Mann Middle School**, the class of 14 students will meet one day each week for 90 minutes. Their coach, **Eileen Kahn** is a parent mentor for Team MORTORQ. She has been employed by the City of Beverly Hills for six years teaching after school programs. **Principal Dawnalyn Murakawa-** is “very excited to have this enrichment program available to the students of Horace Mann.” We are currently working with the PTA of **Hawthorne Middle School** to initiate a similar program at that campus.

MORTORQ team volunteers will stimulate interest and excitement in science and engineering among the sixth to eighth graders by demonstrating to the middle schoolers what our robot can do and by engaging them in creative robotics activities. We anticipate that their FIRST experience will continue at the high school through MORTORQ.

In addition, Team 1515 is always prepared to lend a hand to other school groups, whether by sharpening a prop for the fall play or taking pictures for a camera-less Academic Decathlon team going off to competition.

## MORTORQ spreads the spirit of FIRST through media

Our team has taken advantage of school and community resources to encourage more people to become involved with FIRST. The **school newspaper Highlights** and the Beverly Hills **community newspaper BH Courier** published news stories in October 2004 and December 2004, respectively, describing the FIRST program at Beverly Hills High. Once the building season is over, press releases, outlining our progress, will be sent to both newspapers, the school board, and the Chamber of Commerce.

A 15-second video clip, which includes contact information and video footage of the team, is broadcasted every afternoon on our **local cable access channel, KBEV-6**. Demonstrating the cooperative spirit of FIRST, a documentary of MORTORQ’s first year, currently being filmed by team member Dmitriy Katsel, will air in the fall.

The Internet is another medium that MORTORQ uses to spread the FIRST message. Our **team blog** (<http://www.livejournal.com/community/bhrobotics>) and **Web site** (<http://www.bhrobotics.com/>) are updated daily with news, pictures, and progress reports. Through the blog, we communicate with FIRST participants around the country. Team members also use the **BH Robotics Yahoo Group** for correspondence.



**MORTORQ member Matthaniel updates the team Web site.**



## – the house becomes a home –

Room 191 started out as just another room, just as our robotics team started out as just another group of students. With the support of parents, sponsors, and mentors and the countless hours spent in Room 191, Team MORTORQ has **become a home** away from home.

### Parents make Room 191 more like home

After U.S. FIRST Robotics was introduced at two parent meetings held in December 2004, parents Eileen Kahn, Barry Brucker, and Helene Harris became avid supporters of Team MORTORQ. Donating both time and money, these “**Team Moms**” (and at least one “Team Dad”) stocked Room 191 with snacks and lent their business and PR expertise and advice to MORTORQ team members. Two others parents, Myra Gabbay and Asher Bartov, were active from the beginning, helping to initiate FIRST at Beverly Hills High.

*“We thought this competition would be wonderfully enriching, and provide the students with memories that would last a lifetime.”*

*Myra Gabbay, parent*



**Dan from WDI advises our team members on building ideas after Kickoff.**



### Community partnerships contribute to growth

Beginning in October 2004, various corporate sponsors and mentors have contributed to Team MORTORQ financially, but more importantly, with their expertise, resources and commitment. **Walt Disney Imagineering** engineers volunteered their time before and during the six-week construction period teaching student animators how to use 3D Studio Max, advising robot designers what ideas were feasible, and counseling fundraisers on the realities of budgets and financial resources. Former Beverly Hills High teacher David Seidel, currently employed at **JPL**, is also a familiar face.

A 2004-05 **NASA** Sponsored Team, we are also fortunate to have **Hawthorne High's robotics team** to turn to. Hawthorne was critical in getting the robotics program and WDI sponsorship started at Beverly Hills High. MORTORQ team members visited Hawthorne to see the setup of their robotics room and the machines needed and to observe their robots in action. Team members also visited **Archer School** and **Chatsworth High**, and a partnership was made with **UCLA** for the use of their machine shop.

### MORTORQ'S DIARY

#### **Kickoff: “Lots of tetrahedron action”**

*Our team captain Zack Anderson described this year's game to us after he had returned from USC's Kickoff Ceremony. The entire team was gathered at school for our own Kickoff Party. Parents brought food, cameras flashed every few minutes, Principal Stepenosky made a speech, and two members filmed everything for our documentary, including the oh-so-important unveiling of the box of parts. Everyone is so excited! We're all rushing off to read the rules.*

#### **Week 1: “Look, a countdown clock!”**

*The team began to feel the pressure once a clock counting down the seconds until shipping day was set up in Room 191. The Design group, with the help of Dan from WDI, was enthusiastic to begin drafting, but they encountered a few difficulties when no one could agree on a single design. Fortunately, our first obstacle was overcome – we realized that working in a team requires mutual respect and compromise. Not only was the robot designed, but the framework was built as well.*

#### **Week 2: “It's a telescope and it's alive!”**

*The animators who had finished creating their objects (including a telescope, as team member Connie Lam so enthusiastically points out) and characters were not the only ones excited about their progress this week. The joysticks for the robot were programmed, and the 'bot was tested for the first time in the hallway outside Room 191. We all stood around and cheered it on. A little sputtering, but a successful test run nonetheless.*

#### **Week 5: “You've already won.”**

*“Having come this far, you've already won,” Principal Stepenosky had said during Kickoff. We finished the robot this week, having spent countless hours working on it, and after proudly presenting our accomplishment to the Board of Education, we definitely understand what our principal means. But, as Step also said, “That doesn't mean we're done winning.”*

*All diary entries available on our Web site.*

## – contractor perspectives –

### **Sloane Trugman, student**

*A proud member of Team MORTORQ's Business and Writing group, I can gladly say that there are several adjectives that describe my FIRST experience. Enriching, educational, resourceful, and cooperative are a few that come to mind. I choose these words because they truly depict the meaning behind not only my experience and growth, but the team's as well.*

*Through planning our main fundraising event, I have learned that independent work is not always best. I collaborated with another team member and parent; the event was a success! We raised over \$2000 including donations. This has been an inspiring experience that will forever affect the integrity and diligence of my work.*

### **Charles Lee, faculty advisor**

*Being involved with the robotics program has been one of the best experiences of my life. This project gave me an opportunity yet again into the glimpse of the future of our world. Seeing the students working so closely and in collaboration in solving problems and implementing their plans has been simply amazing. After spending countless hours in and out of class together, we have become a family, working and caring for one another. FIRST is not just another competition; it is a seed for the future for our young scientists and human kind.*

### **Eileen Kahn, parent**

*It has been an absolute pleasure to have been one of the parent mentors for the BHHS robotics team. On our team we have artists, journalists, programmers, builders, electricians, fundraising specialists.... It is truly remarkable to see a single program bring together these unique individuals. They learn teamwork, interpersonal skills, new computer programs, respect for each other and their individual talents. All that they have learned will benefit them in their future endeavors.*

*I have truly enjoyed getting to know the incredible students that are participating in the FIRST program. All of the participants deserve praise for their dedication and teamwork. I look forward to working with them in the future.*



**Advisor Charles Lee and parent Eileen Kahn look over a few robotics forms in preparation for a trip to Hawthorne High.**

## – room for expansion –

With a strong **foundation** built, Team MORTORQ is now ready to draft plans for future **expansion**, as well as fortification of the partnerships and experience that we have gained this season.

### **After this season:**

- Demonstrations of the robot will be made at the high school and the surrounding middle schools
- All sponsors will be invited to a celebratory dinner party to thank them for their support
- Press packets will be sent to the local newspapers detailing the events of the season
- Our documentary will be aired on KBEV-6.

### **Next year:**

- Sponsorship of FIRST Lego League at Horace Mann will commence; we will continue efforts to spread FLL to Hawthorne Middle School; Crossroads High School expressed an interest to us in starting a robotics team of their own
- A compilation of engineering-based college programs and scholarships, including links and information, will be made available to all FIRST participants during the summer.

*Our team has demonstrated that even without a full year of FIRST involvement, it is still possible to produce a strong and growing team. This season, Team MORTORQ strove to develop a complete program, to **"Build A Foundation,"** one that is not just focused on the robot. We have gained a great deal of practical experience, both in building the robot and fundraising, made important contacts, forged exciting partnerships, and set precedents for future years to build upon.*