



**For Inspiration and
Recognition of Science and
Technology**



**Team 358
Hauppauge Robotic Eagles**

Team358.org

Parent Handbook

Updated Summer-2006

Forward

This handbook is intended to be a reference rather than a novelization. You don't have to read this cover-to-cover, you might strain something. Go right to whatever you want to know more about – costs, schedule, etc. Want to know what a competition is like? It isn't even in here! That's in the Appendix. Probably the sections of most interest are: Parent Meetings, How Parents Participate, and Costs.

We have handbooks you can read for each major type of team member: student, parent, mentor, officer, and advisor. These share some common material: Our mission and objectives, team management/ background /organization /schedule, etc.

If there is a single point we'd like you to take away from this Handbook it is FIRST's concept of Gracious Professionalism (GP). GP stands for sportsmanship above and beyond the norm. GP means being as supportive to the students on other teams as we are to our own. We want ALL students to be inspired by what we can do. GP does not demand that our kindness be returned before we decide to give ours, it is not a stick with which to bludgeon our competitors if we don't think they practice GP. The importance of GP is to better ourselves, rather than others, becoming responsible citizens and improving our society by example. Years from now our team alumni will remember a great play, some adversity overcome, helping out another team in need, but not so much the plastic trophies collecting dust in a school display case. We hope that alumni from other teams remember our kids as well for helping them get a robot running, as good sports, fun to be with.

Here is an opportunity to make a commitment to be a part of your child's team. Helping with parent responsibilities, such as, transportation, support, fund raising, chaperoning, cheering on all the teams.

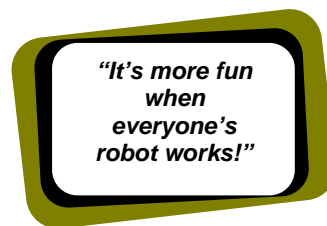


References

- Team Business Plan / 5-Year Strategic Plan
- Publicity Manual/Publicity Tips
- Team Fund Raising History
- District Student Release Form
- Travel Permission Slip
- FIRST Release Form
- NEMO's

www.firstnemo.org/PDF/101_ways_parents_can_help.pdf

Find Out More



- team358.org – Our website
- www.usfirst.org – FIRST website
- www.chiefdelphi.com/forums – Team discussion forum
- www.firstnemo.org – NEMO (Non-Engineering Mentor Organization) is a support group

and information exchange for those adult non-engineering mentors.

- Vice Presidents - Greg Bixson & Shawn Mooney
- Scout Master - Collin Clifford
- Head of Engineering - Scott Thornton
- Secretary - Meredith McLeod
- Advisors
 - Mr. Mark McLeod
 - Mr. Ken Tiu
- Sponsor Representative
 - Mr. Scott Schuler
- Booster Club
 - President – Mrs. Sheryl Moore
 - Treasurer – Mrs. Rose Morales

Handbooks in This Series

These handbooks must be living, dynamic documents if we are to continue to succeed. Coming up with fresh ideas, trying new approaches, and revisiting lapsed practices all serve to keep our creative energies flowing and everyone fully involved. These handbooks are not the culmination of what we know and how we operate, but always the beginning. The message in this series of team handbooks needs to be told verbally and visually as well as in print. These handbooks will be updated and revised yearly, usually during the summer downtime, to include new best-practices, schedule evolution, significant successes/failures, and fresh ideas.

- Student Handbook – Student roles on the team and in the FIRST program
- Officer Handbook – Student officer duties and concerns
- Parent Handbook – How parents contribute to the Team and FIRST program
- Mentor Handbook – Involvement of volunteer mentors
- Advisor Handbook – Behind the scenes administration required to operate the team.
- Handbook Appendices – Travel, what to expect at competitions, detailed rules of conduct, fundraising history.

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Mission Statement

Directly *involve* students in the professional field of engineering through collaboration with volunteer professional engineers and in partnership with Festo Corporation. All work together as a team to invent technology and design and build a robot to meet the FIRST robotic competition challenge. The FIRST program builds self-confidence, knowledge, and life skills while motivating young people to pursue opportunities in science, technology, and engineering.

Team Objectives

FIRST is the brainchild of inventor Dean Kamen, who created, among other inventions, the portable dialysis machine and the Segway out of his concern for applying our talents for social good. It is an organization with the goal of generating interest among young people in science and engineering. Not only does FIRST support science, but it also hopes to create better people, therefore social conscious engineers, by teaching its creed of gracious professionalism. Although the FIRST Robotics Competition is about creating an innovative robot, it also calls for helping one another as much as possible. All of the FIRST Robotics teams are there for each other, whether they're helping each other with parts and materials, creating custom machined parts for each other, or simply offering advice and suggestions.



- Was everyone engaged and will they return?
- Did the veterans all teach something to at least one other person?
- Did everyone learn something from a mentor?
- Reflections

SUMMER – light effort

- ❖ Casual experimentation and special projects
- ❖ Self-taught Computer Aided Design and Animation tool training
- ❖ Fall preparations

Team Communication

team358.org – Our website is our *primary* source for schedules, news, history, photographs and videos, technical papers, organization, fundraising, as well as topical discussions. The student Secretary also commands all modern forms of communication (IM, email, phone, USPS). Provide an email address and you can expect periodic email from the Secretaries and advisors. Information may also come by flyer, mail, the regular morning high school PA announcements, or discussion at Team meetings.



Team Contacts (2006-2007)

Email and phone contact information is maintained separately and is available on the team contact list.

- Student Officers
 - President - Chris Citro

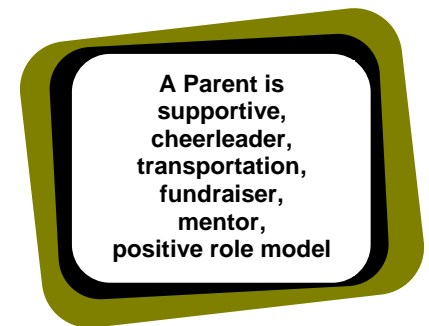
WINTER – Busiest time for us

- ❖ January Saturday kickoff – game and rules are revealed via webcast, and we receive the motors & electronics we must use along with any specialized equipment required by the game.
- ❖ Jan/Feb: Intense 6 weeks of robot design and construction, generally 6pm – 10pm, but schoolwork comes first so students don't have to attend the full time or every meeting.
 - Rookie mentoring visits
 - Brainstorming game play, strategies, robot designs
 - Construction of practice field
 - Design/build/integrate sub-systems
 - Test and redesign/rebuild where necessary
 - Final programming integration
 - Driver testing
 - Robot ships and we rest

SPRING – heavy involvement only during events

- ❖ Fix-it Windows – one or two evenings a week to make replacement parts
- ❖ Two March three-day Regional events. A local competition at Hofstra and one away trip.
- ❖ Late April Championships are held in Atlanta, GA
- ❖ Outreach activities such as I-CON at Stony Brook
- ❖ Team meeting one evening a week until the end of school organizing the robotics room, laying plans, and working on projects.
- ❖ Officer elections
- ❖ Year-end debrief reports from officers-what worked, what didn't, and recommendations.
- ❖ June end-of-year party and awards
 - Team awards (seniors, mentors, boosters, sponsors, members-at-large)
 - Season assessment
 - Synopsis of the year
 - What could have made this year more enjoyable and rewarding?

- ❖ Build character and citizenship through community service, sportsmanship, helping others: through Gracious Professionalism (GP) – We come together to compete, and compete hard, but we want every team to have an equal opportunity and experience. Our team motto is “It’s More Fun When Everyone’s Robot Works!” There is no “they,” only “us” - friendly, helpful, courteous, kind - don't win at another's expense. GP is a goal for individuals and teams to achieve, not a complaint to level against others. Those who find themselves accusing others of non-GP conduct are those who have failed to exhibit GP. The FIRST robotics competition is structured like a sporting event, however, we strive to emphasize sportsmanship rather than the sport. We want all the robots to compete at their best, so all students are equally inspired. For example, if an opponent breaks a chain, we help them fix it, so we can all be the best we can be. If our opposing alliance has no time-outs remaining, but a critical repair to make, then we take the timeout for them.
- ❖ Be competitive, but it is much, much more than a game.
- ❖ Expose high school students to college- and professional-level applied technology.
- ❖ Develop skills in technology, leadership, teamwork.
- ❖ Dedicate ourselves to continuous improvement. Ours is not a static organization. We look for new challenges and constantly experiment with improvements and new methods of operating our team and engineering.
- ❖ Expect 100% from all participants – students, mentors, parents as a united organization, not an individual's science fair project. Satisfy the needs of all participants: students for learning, mentors for personal growth, technical challenge for all.



- ❖ Strive for quality outreach primarily through mentoring, technical support, and sweat - many teams lack mentors altogether or may lack in one specialty such as computer science or mechanical engineering.
- ❖ Contribute to quality growth and increased technical capabilities of teams on Long Island.
- ❖ Maintain a positive, supportive attitude for our team and others at all times.
- ❖ Attract a diverse team population so we can expand each others minds.
- ❖ Have fun.

We are concerned foremost with our Team’s health and sustainability, but we also introduce the students to broader concerns of the FIRST community that affect us. Engineering ethics teaches that what we do has far reaching effects and we are concerned that those effects are positive. Invent with concern for others.

We support a growing vibrant FIRST community. We support our Regional Director and Committee, and the School-Business Partnership of Long Island (SBPLI) to insure the growth of the FIRST program on Long Island, and we work cooperatively with other teams to support them and receive support in return. Our motto for many years has been “It’s more fun when everyone’s robot works.” We don’t lose sight of our goal to get more students interested in science and technology, whether those students attend Hauppauge or some other school. We have several team members (both students and mentors) from nearby districts that do not have teams or that are considering starting teams. We also mentor both rookie and veteran teams to smooth their entry into FIRST and help the number of teams on Long Island to grow.

Team Management

Our Team brings a unique experience to students. A different way of involving students by not just playing with robots in an after school club but working in a true engineering environment with and alongside of professional engineers. This is not your typical

Team Background

Team 358 was started in 1999 for the 2000 competition season in a collaboration between Hans Zobel of our principal sponsor, Festo Corp., and the Hauppauge School District Superintendent. Hans was also involved with helping SBPLI get the FIRST Long Island Regional and several other teams started that same year. Mr. Tiu, a teacher at Hauppauge, and Mr. Schuler of Festo have been on the Team since that beginning. We have earned numerous technical, Regional Champion, and Finalist awards, along with FIRST’s highest, the Regional Chairman’s Award. Additionally, we have mentored many new teams and assisted numerous other teams with technical workshops, tools, parts, and expertise. A detailed, year-by-year history is available on our team website.

Team Organization

- ❖ Student Officers – outreach, publicity, recruitment, design/build/competition
- ❖ Advisors – school legalities/rules, supervision, mentors, advice
- ❖ Technical mentors - mechanical, electrical, pneumatics, programming, etc.
- ❖ Booster Club – fundraising, food, travel arrangements, chaperoning.
- ❖ Sponsors – financial, engineering, and material support.

General Schedule

The detailed team schedule is to be found on our team website (team358.org) and is updated frequently.

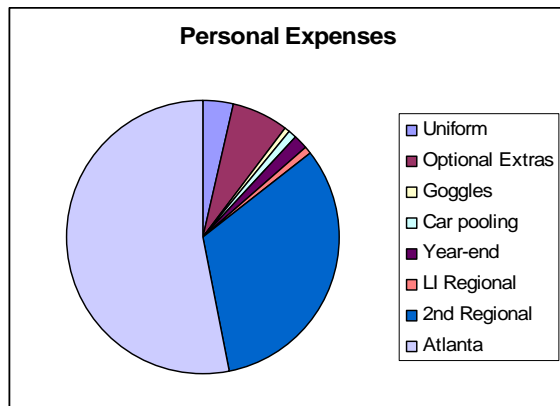
FALL – moderate schedule

- ❖ Team meeting one evening a week training new members by working on a common project
- ❖ Fundraising events, such as our Oldies Concert
- ❖ Outreach/demo. events, e.g., Safe Halloween and Homecoming
- ❖ Off-season competitions

Historical Costs for Individuals

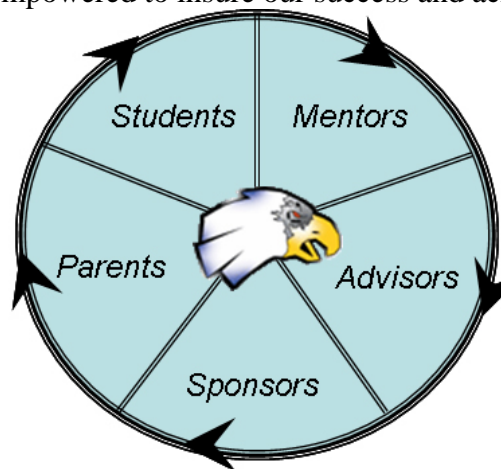
The Booster Club fundraising efforts cut some of these expenses, and there are fundraisers designed solely for students to reduce their personal travel expenses. However, fundraising to cut expenses by its very nature is not guaranteed for future trips. Here is what you can expect to be spending money on this year based on the unreduced travel cost from years past. Costs will fluctuate with gasoline prices, inflation, and where we actually compete.

- Team uniform – khaki pants ~\$30, one team T-shirt is provided- additional team shirts ~\$5 each (we have offered an *optional* team jacket in the past ~\$46)
- Personal safety goggles ~\$5
- Off-season events parent car pooling, volunteer drivers absorb the gas and tolls.
- Year-end Party/gift for advisors ~\$10 + pot-luck dish
- FIRST events – These are rough costs before applying the Club fundraising:
 - Long Island Regional – lunch ~\$10/day
 - Second Regional Competition – coach bus/hotel/food ~\$275
 - Atlanta Championships – transportation/hotel/food ~\$450



teacher/student relationship but is run as a small business firm, with freshmen students as the new interns, seniors as the group leaders/supervisors, and mentors as the old salts/managers. FIRST allows for a wide-range of approaches to running a team, from after-school club style with no parent or mentor involvement to teams that build at a sponsor's facility with full engineering and machining support. From FIRST's perspective, all approaches are valid as long as they achieve the primary goal of inspiring youth. Team 358 has settled on a teamwork approach that involves ALL team participants equally – students, mentors, parents, advisors, and sponsors all give all they can and everyone has ownership. Students develop an appreciation for engineering by working hands-on side-by-side with professional engineers. All hands are on the robot together, and all ideas are heard and debated as a team.

Because we are a co-curricular school organization, ultimate authority for the team lies with the advisors and school district administration; however, the team is an assembly of volunteers - students, mentors, parents - and the team will thrive if all are empowered to insure our success and achieve our goals.



Outreach, robot designs, construction practices, the competitions we choose to attend are all up for popular debate and discussion in our practice of shared leadership. During the brainstorming sessions after Kickoff, for example, students and mentors will split into

sub-groups to develop, then defend before the team, alternative design approaches. Overriding concerns such as risk, cost, detailed design time, machining capabilities, labor, etc. will be given

weight in coming to a final group decision. In the event of ties, conflicts, sudden changes in circumstances, etc., decisions will be reached by the advisors and student officers, with the lead advisor making final rulings as required and bearing the responsibility.

Parent Meetings

- One meeting during each of the months of November, February, March, April for:
 - Program orientation
 - Travel plans/expenses
 - Fundraising efforts
 - Sponsor solicitation
 - Competition
 - Year-end party

Booster Club officers have more frequent meetings covering finance and organization of the club and it's activities.

How Parents Participate

We actively solicit parental involvement. Our team brings adults and students of all backgrounds and talents together. The following are only a few of the tasks to be done. We welcome



new ideas every year and you can help define these roles. Some involve organizing and mentoring the students while others are purely adult functions. If you head up a particular effort, please give the team a one page summary report at the end of the year, no matter how trivial. Things will run that much smoother if we keep a record and you wouldn't

Eagles) and Team number (358). We also cheer for the other teams on our alliance for the match.

- During Finals we always cheer for our whole alliance (Red or Blue). We do not chant our team number alone. We are an alliance of typically of three teams working together.
- Oversee rotation of students in the mascot costume.
- Awards
 - If we win an award the entire team including parents troop down to shake hands with the judges, FIRST representatives, dignitaries, etc.



- Event Volunteers
 - The Regionals are always in need of volunteers to keep things operating smoothly and you don't have to know a thing! They'll teach you everything you need to know. Please consider volunteering your time for the three days of our local Long Island Regional and at any of the away events we attend such as the Championship in Atlanta.

- Publicity and public relations
- Local car pooling for mentoring rookie teams, attending workshops or off-season events.
- Promote the team before the school board and administration.
- Teacher/mentor/sponsor awards and thank you's
- Videotaping / photography for meetings, mentoring, outreach,
- End of season pot-luck dinner

❖ Competition

- Cheering

Gracious professionalism comes into play strongly when we're in the stands rooting. We want all the students on all the teams to do well, to feel good about themselves, and to be inspired by the competition. We are supportive and positive at all times under every adverse condition. If our robot is unfairly pushed around by another team, or what seems to be a terrible referee call goes against us. Please accept it graciously. Demonstrate by example to your children what good sportsmanship is. Don't blame our losses on anyone, not ourselves and not others. Don't expect the competition or it's outcome to always be fair. We resolve to do better, put setbacks behind us, and move on.

 - We cheer for other teams, especially teams that don't have many supporters in the stands.
 - No booing at any time will be tolerated. If you cannot "cheer" anything good, don't cheer at all, but you should still applaud politely if not enthusiastically.
 - During our qualification matches we cheer for our team by name (Hauppauge or

believe how much easier it will be to get the new volunteer to step-up if they can see how trivial it is. It's your responsibility to train your replacement!

❖ General

- Recruit other parents, retirees, sponsor mentors, etc. Network through friends, family, neighbors, co-workers.
- Be an advocate for our team and FIRST with the District and in our community.
- Help your student attend team meetings either by driving or arranging car pools with other parents. Our team meetings are in the evenings so the mentors can meet with the students after regular working hours.
- Make the Advisors aware of any student/mentor/parent medical conditions that could cause issues in the shop or while traveling.

❖ Technical Mentor

- General technical or engineering backgrounds, machinists, etc.
- A willingness to take a backseat and let the students experiment, but to step-in when they need to learn something new. Keep the students hands in.
- We'll teach you what you need to know about robotics (veteran mentors and students)
- Mentoring needed for: structural, mechanical, electrical, pneumatic, control systems, CAD, computer animation, website, safety

❖ Non-Technical Mentor

Work with students in any of these areas:

- Organizational, management skills for running the team and coordinating meetings
- Writing/English for award submissions, college scholarship essays, promotional literature, competition judge presentation materials.
- Art needed to decorate the Robotics room, our pit at competitions, the robot shipping crate.
- Crafts to develop spirit accessories and team awards given to other teams

❖ Booster Club

- Feeding the troops during the build Jan/Feb season
- Solicit sponsors for cash donations, materials, engineering mentors, tools, machining, excess equipment, going-out-of-business tool or material clearances.
- Sponsor thank you banner displayed at events
- Fundraising
 - Pays for FIRST and off-season competitions, transportation, travel food and offsets individual student expenses
 - Special fundraisers organized for students to cover their personal travel expenses.
 - Helps students in financial need make the trips
 - Oldies Concert – two nights help with concession stand and selling 50/50 raffle tickets (you get a free concert for your assistance)
 - Lotto, flower bulbs, pocket school calendars, whatever we can think of!
 - Looking for innovative ideas and the people to run them.

○ Travel/Events

- Travel arrangements (bus, airline, hotel, restaurant)
- Organize hotel rooming assignments and airline seating.
- Arrange to feed the troops on the bus and during our stay.
- Laminated cell phone contact lists (all students, chaperones)
- Trip chaperones
- Sponsor banner
- Spirit preparation
- Team luggage tags (so we can readily grab them off the airport carousel)



○ Team

- T-shirts
- Team handouts for competitions
- Supervise button mass-production
- Organize team building exercises