

penfield Patron Book

*Penfield-Harris
F²R&J Robotics Team*



2005-2006



200 Bedford Street
Manchester, NH 03101
V: 603-666-3906
F: 603-666-3907
www.usfirst.org
info@usfirst.org

FIRST



For Inspiration and Recognition of Science and Technology The Competition

What is it?

The FIRST Foundation Vision - *“At FIRST, we see a world where science and technology are celebrated, where kids think science is cool and dream of becoming science and technology heroes.”*

The FIRST Competition - is a vehicle for achieving the FIRST Foundation Vision.

The mission of the FIRST Robotics Competition is to inspire curiosity and create interest in science and mathematics among today’s youth by immersing them in the world of engineering and showing the important connection between classroom lessons and real-world applications. To date FIRST is best known for its annual robotic competition in which corporations and universities team up with high schools in a high tech sporting event which pits gladiator robots against each other. They are designed in just six weeks by teams of students, corporate engineers and other corporate professionals. The responsibility of the corporations in the competition is not to teach science and technology, but rather to inspire kids to pursue careers in these fields. AND ITS FUN!!!

What are the Goals of the Program?

To expose middle and high school students to engineers and the engineering profession.

Most students this age have major misconceptions about what engineers are like and what engineers do on a daily basis. Our goal is to introduce the students to engineers and show them that what they do is not only vital to our country, but can also be fun.

To create an environment that makes “heroes” out of engineers and scientists.

Most students look to professional sports heroes as role models. These people have little to do with our standard of living. The real value add in our society comes from scientist and engineers. The environment this program creates incorporates many of the same appealing aspects of the world of sports, such as: finite winners/losers, referees, practice, and the game itself. The result is excitement for the field of engineering.

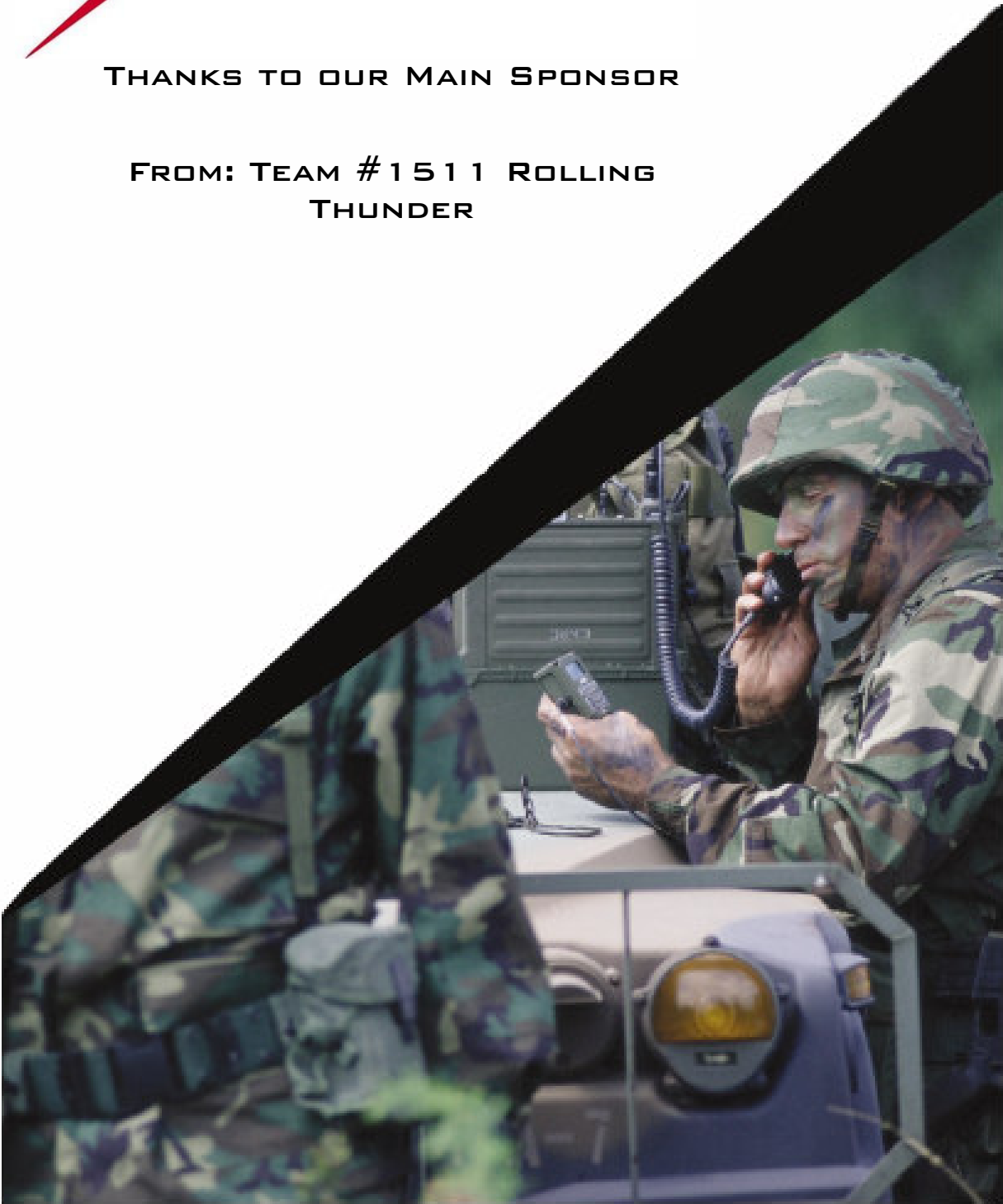
To demonstrate a company’s engineering capability, resources and commitment.

FIRST provides a forum for a participating company to “give back” to the community, to highlight the creativity and energy of its employees and to showcase its technological prowess in a very visible form.

HARRIS

THANKS TO OUR MAIN SPONSOR

FROM: TEAM #1511 ROLLING
THUNDER



Team 1511
Rolling Thunder



Harris Corporation
Penfield High School

Team 1511

Rolling Thunder

Team Members

Students

Alex Bayley
 Jim Bossert
 Graeme Buckley
 Adam Burns
 Jessica Butler
 Ashley Cheney
 Richard Doell
 Mike Francis
 Josh Goodman
 Bethany Griswold
 Andrew Harlan
 Mike Harlan
 Patrick Harney
 Andrew Homan
 Keith Kearns

Kyle Klofstad
 Lorien Lee
 Rika Lee
 Steve Manzoni
 Mark Mascadri
 Jackie Nielsen
 Katie Nielsen
 Martin O'Hern
 Alex Peach
 Ricky Peach
 Josh Ranieri
 Rajeev Sharma
 Melanie Silvas
 Ian Simpson
 Cristian Smith
 Collin Sowinski

Annie Vongnaphone
 Dillon Weerasinghe
 Eric Wiegandt
 Alex Wolf
 Steven Wolf
 Rick Wood
 Randy Zingo
 Jesus Lopez
 Robert Jackson

Harris Mentors

Adzim Auzar
 Eric Averill
 Gregory Campbell
 Amy Downs
 Karen Fellows
 Douglas Hitchcock
 Larry Lewis Jr
 Michael O'Brien
 Kimberly O'Toole
 Eric Peach
 Joshua Schmiedlin
 Gary Schwenck

Mentors

Jeff Downs
 Eric Eckhardt
 David Eckler
 Nancy Gingold
 Jim Harney
 Lee Hoag
 Jeni Lee
 Mark Manzoni
 Donald Murphy
 Greg Needle
 Michael Wolf
 Richard Butts

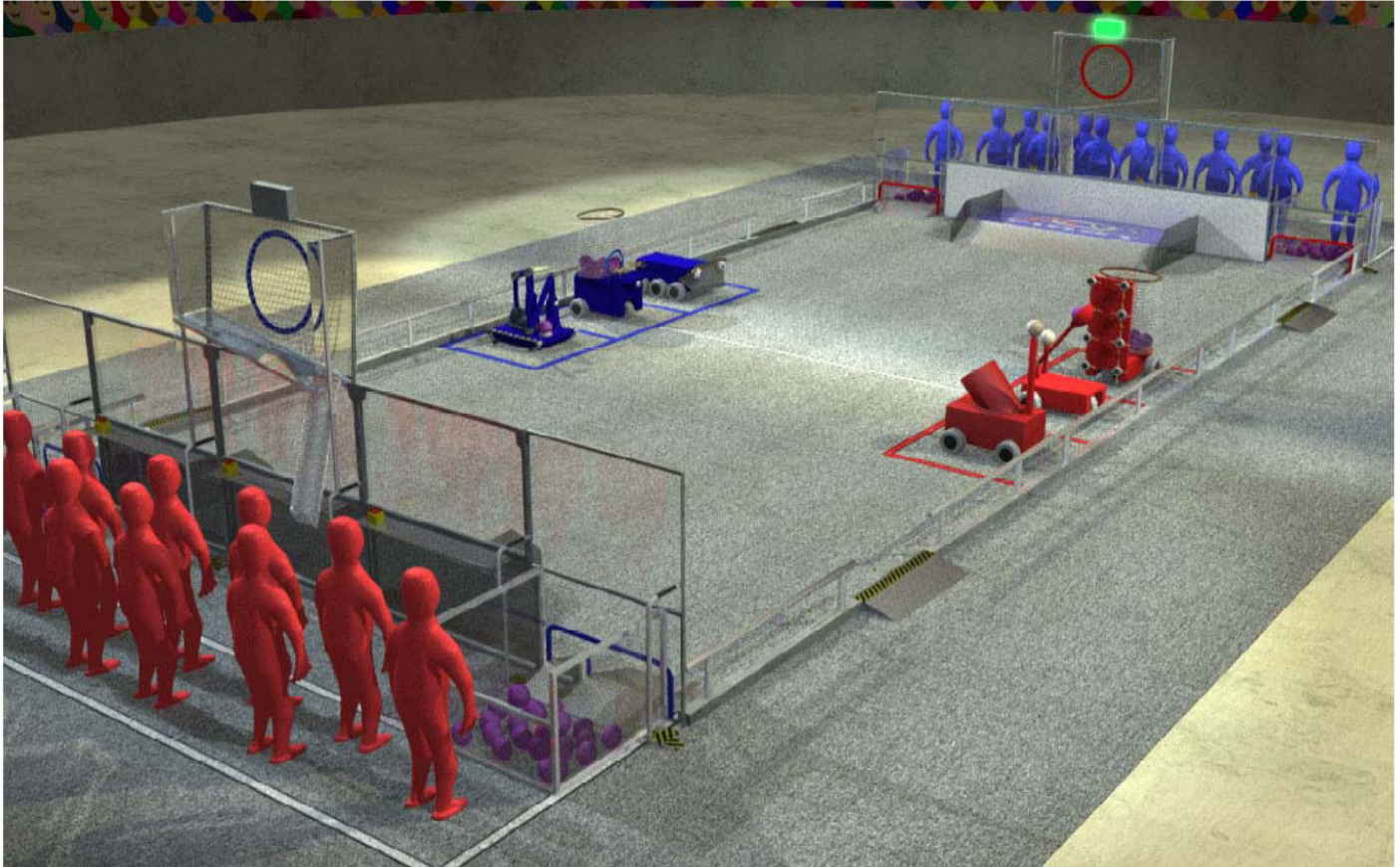
Teacher & Community

Eric Brewer
 Andrea Billin
 Lauren Burns
 Mike Francis
 Ann Francis
 Penney Goodman
 Michelle Harlan
 Shelley O'Hern
 Shanti Sharma
 Sharon Wolf

And Many Thanks to all of our wonderful Parents for their time, help & support!!

THE GAME

AIM HIGH is a game played on a field as illustrated in the figure below. Two alliances, one red and one blue, composed of three teams each, compete in each match. The object of the game is to attain a higher score than your opponent alliance by scoring balls in the center or corner goals, and/or by having ROBOTS on your platform or ramp at the end of the match. The point values for each of those actions are explained below.



GAME OVERVIEW- A match is 2 minutes and 10 seconds long. An **AUTONOMOUS PERIOD** starts the match, which lasts 10 seconds. Following **AUTONOMOUS PERIOD**, there are 2 minutes of tele-operated game play, which are broken up into three 40-second periods. There may be a short pause between **AUTONOMOUS PERIOD** and the start of the tele-operated periods as the players stations are activated. The **SECOND PERIOD** and **THIRD PERIOD** are offense/defense, where only one **ALLIANCE** can score. During the **FINAL PERIOD**, both **ALLIANCEs** can score.

AUTONOMOUS PERIOD - During **AUTONOMOUS PERIOD** both **ALLIANCEs** may play offense or defense, and all goals are active for scoring. During **AUTONOMOUS PERIOD** the **ROBOTs** react only to sensor inputs and commands programmed into the onboard control system. Human control of the **ROBOT** is not permitted at this time. All **ROBOT** safety rules are still applicable during **AUTONOMOUS PERIOD**.

SECOND PERIOD - The **ALLIANCE** with the highest score at the end of **AUTONOMOUS PERIOD** will play on defense during the **SECOND PERIOD**. In the event of a tie at the end of **AUTONOMOUS PERIOD**, the **ALLIANCE** playing on defense during **SECOND PERIOD** will be chosen at random. Any balls scored in the defensive **ALLIANCE's** goals (opposite their **DRIVER's** station) during this period will not be counted

THIRD PERIOD - The **ALLIANCE** that was on offense for the **SECOND PERIOD** will play on defense during the **THIRD PERIOD**. Any balls scored in the defensive **ALLIANCE's** goals during this time will not be counted.

FINAL PERIOD - Both **ALLIANCEs** may play offense or defense during the **FINAL PERIOD**. Balls scored in all goals will be counted.

Scoring—In order for a ball to score, it must enter the goal and exit via the exit chute. A ball that bounces out of the goal is not scored. Once a ball is scored for a particular ALLIANCE, it cannot score again until it is entered onto the field by the opposing ALLIANCE's HUMAN PLAYER.

Point Values:

Center Goal - A ball scored in the center goal is worth 3 points for the ALLIANCE whose DRIVER's station is opposite the goal, when that ALLIANCE is designated as playing offense.

Corner Goal - A ball scored in the either of the corner goals is worth 1 point for the ALLIANCE whose DRIVER's station is opposite the goal, when that ALLIANCE is designated as playing offense.

AUTONOMOUS PERIOD Bonus - The ALLIANCE that has the highest point total at the end of AUTONOMOUS PERIOD will receive a 10 point bonus.

ROBOTS on ALLIANCE PLATFORMs - ROBOTS score points if they are entirely on an ALLIANCE PLATFORM when they come to rest at the end of the match. ALLIANCEs receive points for ROBOTS belonging to either ALLIANCE that are on the ALLIANCE PLATFORM closest to the ALLIANCE's DRIVER station. If any part of the ROBOT is touching the carpet, the ROBOT is not considered on the platform. If a ROBOT is entirely on an ALLIANCE PLATFORM and is touching another ROBOT that is not entirely on the ALLIANCE PLATFORM, it still is considered on the platform. One ROBOT on a platform or ramp is worth 5 points, two ROBOTS are worth 10 points, 3 or more ROBOTS are worth 25 points.



Chairmans Award Submission

Briefly describe the impact of the FIRST program on team participants

Over the past two years, FIRST has impacted each of us in many ways. After an incredible rookie year, we set our sights on loftier challenges including our self-imposed goal of "151 thunderbolts" in the form of community outreach programs. So, whether it is building a robot or doing a community service project, the Rolling Thunder team has been impacted and driven by the guiding principles of FIRST, especially by embracing other rookie teams and exemplifying "gracious professionalism".

Examples of role model characteristics for other teams to emulate.

We are very proud of the fact that our team will continue to embrace other rookie teams as exemplified by our hosting the "all-rookie meet & greet" events at the regionals we'll be attending as well as at the championship. Our team has also put great emphasis on creating opportunities for Rochester area FIRST teams to interact and work together, and inspiring youth in our 3 FLL teams. Additionally our team handbook outlines the important goals and standards for our team members to set.

Describe the impact of the FIRST program on your team and community

After the 2005 rookie season, the word of FIRST and the success of the Rolling Thunder team spread quickly through the community. During the off-season, we have completed many demonstrations and community service projects especially in the area of providing early education of robotics to younger students. Our robotics club membership this year has almost doubled in size with a great mixture of students. Our patron drive continues to involve and inform local area businesses of our progress.

Teams innovative methods to spread the FIRST message.

When we started the idea of reaching "151 thunderbolts", we never thought that having such a goal would cause such a stir. We have spread the message of FIRST by a steady presence in our camouflage uniforms, our patron drive and our thunderbolt demonstrations and community service activities. The events we have sponsored (Rochester Rally, Ra-Cha-Cha Ruckus, FLL Rumble) have all provided a lot of coverage by the local TV media and brought Rochester Area teams together.

Describe the strength of your partnership.

Harris Corp. has offered funding to support our travel, machining needs and, most importantly, the mentors to help out our team. The school is providing facilities, time and organization for the team. The parents are involved and bring us dinners, even the janitors are involved and love us. Just about everyone is curious about our project. Our mentors have come to know us well through the preseason activities, and are now on open lines of communication for anything that the team needs.

Teams communication methods and results.

Both the students and the mentors favor online tools. We setup a web site and forum for open dialog. We have email distribution lists for announcements and telephone trees. Each class elected a leader, and the functional teams all have leaders. So, contacting each other is an easy process to follow. Although the web site took a while for us to get used to, now the mentors and students visit the forum 24/7 for brainstorming and passing ideas.

Other matters of interest to the FIRST judges, if any.

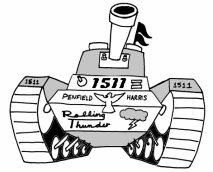
We have led the way in our region, becoming the host team for many events including two inter-team rallies prior to ship date, sponsorship of three FLL teams, and oversight of several off-season events. We also are using some advanced optical forms scanning software to manage our team time cards and scouting reports this year. Additionally our team has tested out some advanced engineering concepts in sensor design and implementation.



Rolling Thunder

Penfield High School

Harris Corp., RF Communications Div.



2006 Chairman's Award Essay

"A 'New Breed' of FIRST"

Since the beginning of Team 1511 Rolling Thunder, there has been a constant drive to do more. This team does not only aim high, they achieve high. Within the first year of participation, team 1511 grew and accomplished more than they ever expected. They are the epitome of a 'new breed' of FIRST. This 'new breed' goes above and beyond rookie year expectations and establishes themselves as leaders. Now, as a second year team, there is a desire to aim higher and lead stronger.

Team History

Established in the Penfield community in mid 2004, the mentors and students on team 1511 were unsure of what to expect. The students displayed interest and enthusiasm in this unique opportunity. As a rookie team, the team attended three regional competitions and received 6 awards. Foremost among these were, the Rookie All-star award at the Finger Lakes Regional and Regional Champions at the Greater Toronto Regional, both of which qualified the team for the Championship Event. The team traveled to the Event in April of 2005 and was thrilled to receive the 2005 International Rookie All-Star title.

Team Mission and Goals

"Creating opportunities for the future by providing students with FIRST hand robotics expertise with local engineers; thus instilling confidence to succeed in a rapidly changing world."

- Advance respect and appreciation for engineering, science and technology.
- Develop within the team a character of honesty, integrity, and sensitivity.
- Help and encourage everyone with an attitude of cooperation, collaboration, and concern for others, including competitors.
- Promote important skills including leadership, teamwork, responsibility, accountability, academic performance, community involvement, and management.

FIRST- Bringing Teams Together

As one of our goals is to bring the Rochester area FIRST teams together, we have developed activities that strengthen inter-team relationships.

Last year we organized and hosted the "Rochester Rally," a pre-ship event for the 16 Rochester area teams to experience the game of Triple Play. This year we hosted "Rochester Rally II" in which the area teams tested their robots in this year's game, AIM High.

Back in Atlanta we hosted an "All-Rookie Meet and Greet." At this popular event, we handed out folders with information about all the rookie teams at the event, things to do in Atlanta, and how to start a FIRST Lego League team. We will repeat the event this year at the Championships, and the two Regionals we attend.

This past August, we pulled together the Rochester area teams to organize an off season event. The off season committee was chaired by our team leader, and was composed of 15 members, 5 of which were from team 1511 including 2 students. The "Rah Cha Cha Ruckus" took place in October of 2005 and proved to be a successful event. 15 teams including 1 Michigan team and 2 Rochester Rookie teams attended this event. Both first-year teams made it to the final match; everyone was very excited to see such an outcome from teams that were unfamiliar with FIRST and the robots they controlled. The Ruckus helped to inspire the new students, and brought more members of various FIRST teams together.

We participated at "Bash at The Beach" off season competition in Old Lyme, Connecticut. Many of the new students on our team found this event to be inspiring, full of energy and new experiences. It was also a very good bonding experience for the team. We were excited to come in first place with team 237 and team 181, something that we were not expecting.

FIRST- Building Teams

Team 1511 has aimed to inspire younger students by starting 3 Lego League teams, 2 coming from an inner city school. At the Rochester Event, 12 members from team 1511 volunteered their time and held a demo to spark the Lego League student's interest in FIRST Robotics. It was a very rewarding experience seeing the excitement in the Lego league teams and how contagious it was for both students and parents. We will be hosting the "Rochester Rumble" on March 18th, giving the local Lego League teams another chance to play Ocean Odyssey.

This past year we assisted a rookie team, Rush-Henrietta Team 1930 by giving them information on how to run their team based off of our rookie year. We have provided guidance to several rookie teams from D.C. to Michigan. We are helping to start a team for the 2007 season in Lima, NY. We are always eager to give our assistance to other rookie teams.

As mentioned in an article from channel 13, when some students from Edison Tech almost didn't make it in this year's competition after losing their sponsor, students from Penfield High School were glad to adopt them as part of the team. 1511 is helping Edison Tech regain their sponsorship for 2007.

2006 Chairman's Award Essay

Thunder in the Community

One of team 1511's priorities is spreading community awareness. Seeing how we were able to impact our community last year, we set the immense goal to achieve 151 Thunderbolts. "Thunderbolts" are community activities designed to spread the word of FIRST, and to help make our community a better place.

The Patron Book

Our patron book serves as a fundraiser and a way to get the Penfield community involved in and aware of FIRST. Through this we hope to build lasting relationships with the businesses of our community. This year we have spoken with 200 businesses and raised over \$8,000 in patron sponsorship.

Community Events

The team is constantly organizing and participating in community events. We hold at least 2 carwashes annually in which pamphlets are handed out to explain what FIRST is, and information about the team. We have held over 20 demonstrations for various groups, including the local boy scouts, children at the Rochester Museum and Science Center, and for Harris to inform the company of our progress and continue our strong relationship. We have organized multiple canned food drives for 2 of the local food shelves, participated in the local 'Feet for Food' walk, and raised over \$1,000 for Hurricane Katrina Relief. We have done other activities, including sampling distribution, RIT ROCS (Reaching Out for Community Service) Day, gift wrapping, Toys for Tots, and bell ringing for the Salvation Army.

We were highlighted on the local news channel in October, along with another segment on our three FLL teams in December. This year three local news stations covered the Rochester Rally II. We have found that the community enjoys our presence and appreciates our achievements as evident by the many compliments and thanks we receive for our help and accomplishments.

The Team

The members of team 1511 have held a strong bond throughout their experiences as a team. This bond is what has helped us to exceed our goals.

After the 2005 season we were sad to let our 4 senior members go. They brought many qualities to the team and everyone looked up to them. We are very proud to know that FIRST has inspired these students to pursue college majors in mechanical engineering, computer engineering, computer science and business. These are all very important aspects of FIRST and we are already seeing that our other members are following in their footsteps.

FIRST has opened doors for our graduating members this year. Two of our juniors, plan to attend the Clarkson School at Clarkson University next year to study engineering, and a third junior, will graduate early and attend college to study business. The three seniors will go on to engineering and psychology.

Throughout the summer we had weekly team meetings, working on community service activities, team building and fundraising. This time was also used to develop recruiting strategies and layout the preseason schedule. Come September, our efforts paid off. The team recruited 19 students and 6 mentors bringing our totals to 39 students and 15 mentors, making our team stronger than ever.

This team owes a lot of our success to our leadership group that has invested extra time and effort into making us thrive. Our members take leadership very seriously. Over the summer our team published a handbook that is not only a guide for our members to follow but also an infrastructure for other teams to emulate. Within this document we established requirements to help make the members more rounded, and set team expectations.

This year we developed a series of team building activities that strengthened our partnership with our mentors. One such session was a rotation night, where students could choose from different topics that interested them and attend activities from these areas, such as programming, electrical, marketing, etc. This activity was successful in sparking student's interest in new areas. The basic fundamentals of the design process brought to us by the Project Lead the Way curriculum at PHS, including problem identification, conceptualization, refinement of preliminary ideas, design analysis, development, implementation, optimization, and presentation have proved to be useful in making our team more successful and efficient.

In addition to our weekly team meetings, during the preseason we divided into sub-teams based on our interests and abilities. These 10 branches specialized in areas such as spirit, programming, strategy-drive, mechanical, electrical, website and animation. Mentors from these fields worked with us by training us in their area of expertise. The sub-teams worked on many pre-season activities including examining several types or sensors, different drive trains, building preseason strategy and scouting guides, and team spirit.

The desire of team 1511 to aim high has been shown in all they have achieved. The members of this team have grown immensely over the past year thanks to FIRST. This team knows what FIRST is about, not winning nor losing, not even how you play the game, it is about the inspiration and leadership, and this is what makes Team 1511 a 'new breed' of FIRST.



Rol

lin

www.penfieldrobotics.com





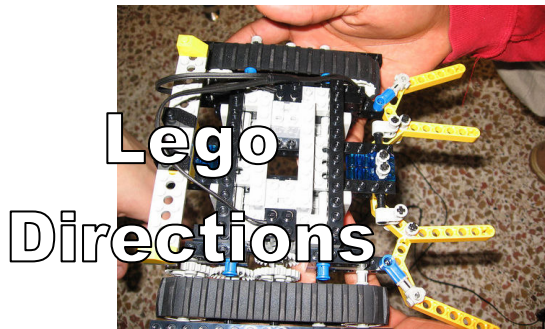
Team 1511



Recruiting
Demonstrations



Teambuilding
Games



Lego
Directions



Museum of Science Demo



Games



Car
Wash



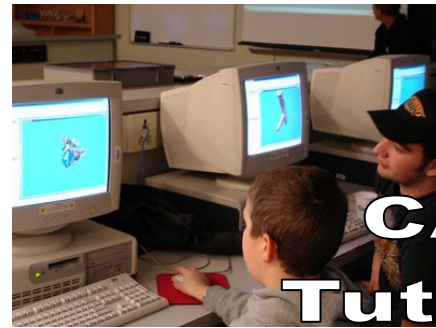
Preseason Activities



Egg Drop



Maize Maze Craze



CAD Tutorial



Rah-cha-cha



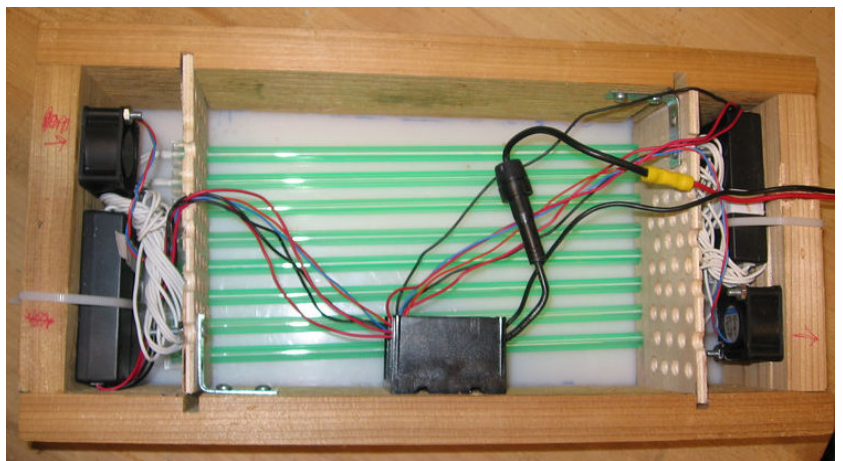
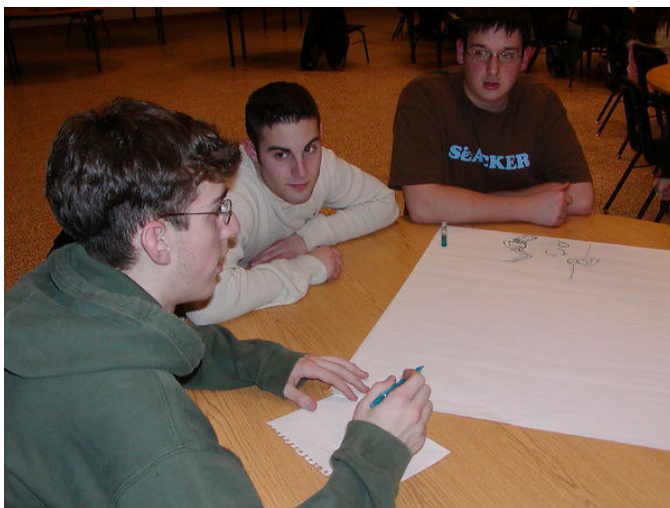
Ruckus!

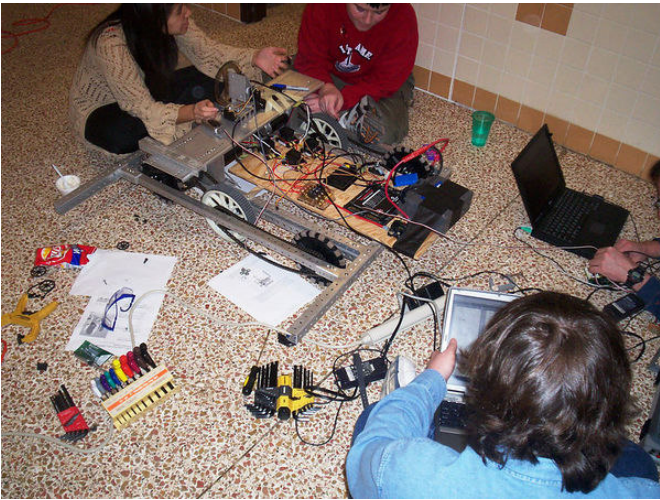


Holiday Party

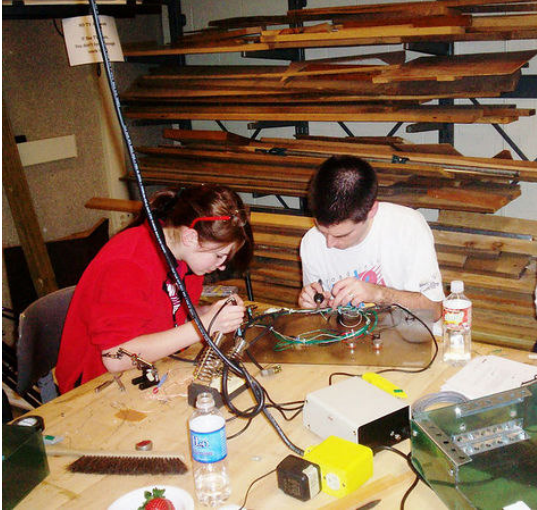
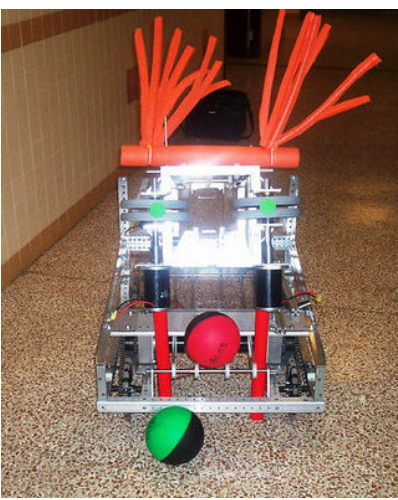


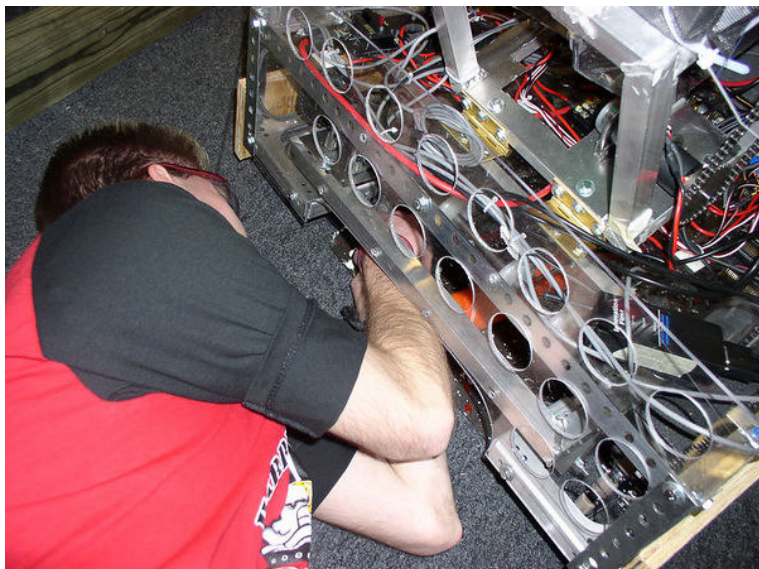
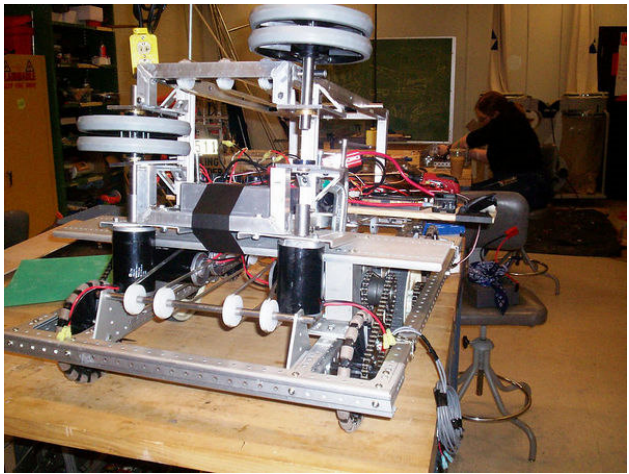
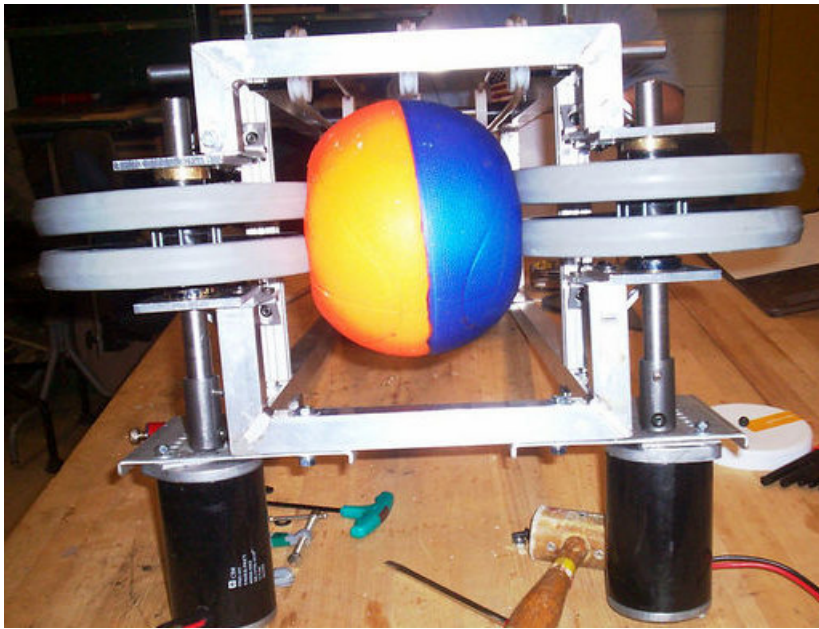
Build Season Pages



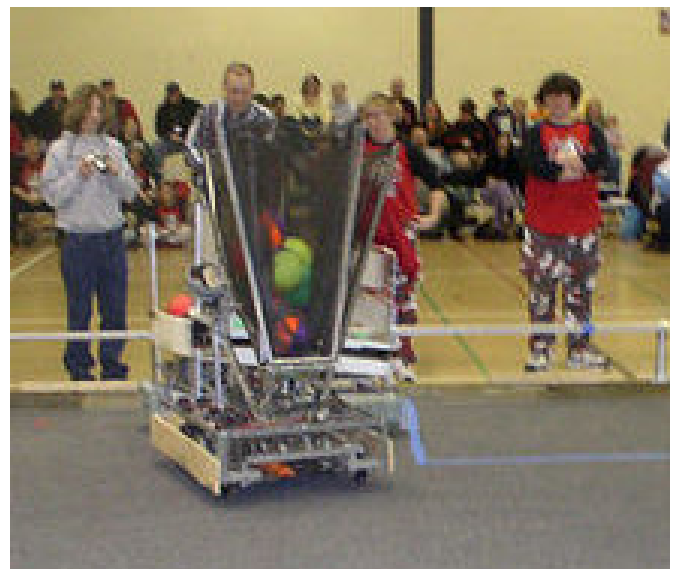


Build Season Pages

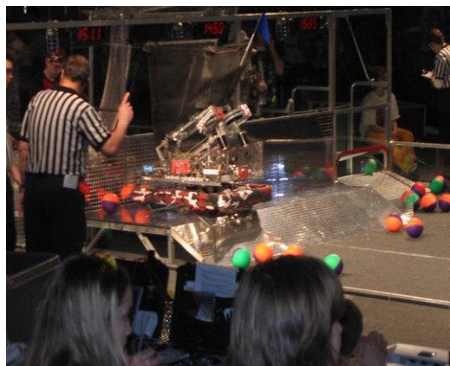
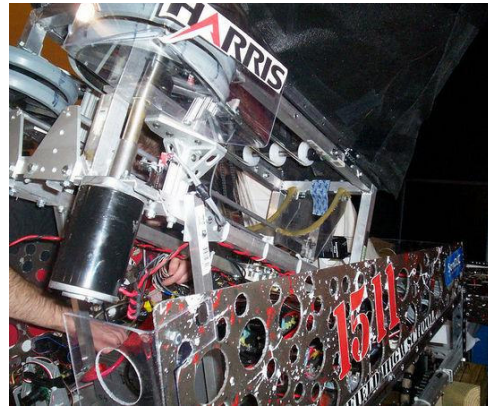




Rochester Rally 2 Penfield, NY



Finger Lakes Regional 2006 Rochester, NY



2006 Regional Quarter Finalists
2006 Engineering Inspiration Award

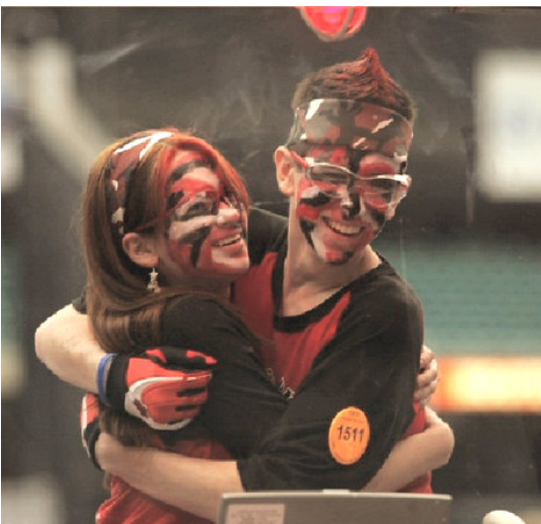
Boston Regional 2006

Boston, MA



2006 Regional Quarter Finalists
2006 Imagery Award

Championship Competition Atlanta, GA



Cur 2005

Lego League Teams



Special Thanks

to all our Sponsors

Eagle (\$500)

Sendec Corporation
Gitano's Frozen Yogurt
Nalge Nunc International
Titan Custom Homes
Ceilings Plus

Hawk (\$200)

Eric Nielsen
John Nielsen
Family First FCU
Outlet Rod & Gun Club, Inc.
PHS Student Council
Lake Beverage Corp.
Morgan Stanley
Gray Metal Products, Inc.
Landmark Appraisal Services
Robert Zingo

Owl (\$100)

Sage Rutty
SCJ Associates
Underberg & Kessler
Cabot Group
Fastrac Markets, LLC
Vision Dodge
Andrea Billin
Clover Nursery
Ashly Audio (W. Thompson)
Harbec Plastics Inc.
Steve & Lynne Donner

Seagull (\$50)

The Bonadio Group LLP
Bonadio Payroll Services LLC
Charlies Restaurants
Adolph Jeff
MCM Natural Stone Inc.
Craft Service
Dr. Dave's Undaunted Do-It-All
Mitchell College
John Holtz Acura
Dick Ide Honda
Postler & Jaeckle Corp.
UA Local #13 Plumbers & Pipe Fitters
Alexander L. Strasser, MD
Twin Oaks Lawn & Landscape Inc.
Manufacturing Resources
XLI Corporation
James P. Hermann DMD PC
Penfield Pizza, Inc. (DBA Mark's Pizzeria)
Virtual Scopics
Allen Associates

Sparrow (\$25)

Amtek Human Resources
Arrow Kitchens, Inc.
Clan MacKenzie
Dons Original
E&G Cajun Bakery
Goldcrest Electronics Corporation
Goodyear Auto Service Center

O.K. Barber Shop
Penfield Veterinary
Hahn Photographic
Safran Production Services Inc.
Panorama Collision, Inc.
Penfield Racquet Club
Debbie Supply, Inc.
Top Notch Monogramming
Gladbrook Pediatrics
Maurer Family
Syma & Patrick Mulich
MIG
David Tweedie, D.D.S.
Subway - Panorama
Spoto Family Dental Practice
Jon Everdyke
Hair Zoo
Oakleaf Services Corporation
Tami Griswold
Macri's Italian Grill
L. David Soldi Trendz Salon
James Geib
Rainbow Pediatrics

Special Thanks

Town & Country Travel
Tuxedo Corner
Seneca Niagara
Glenwood Sales Company
Dutchess Restaurant

Nalge Nunc International

proudly supports the
**Penfield High School
Robotics Team**

From one Penfield leader in
Science and Technology
to another:

**Good Luck Team 1511
Rolling Thunder!**

Nalge Nunc International...
manufacturing quality scientific
products in Penfield since 1954

www.nalgenunc.com

Best Wishes to Team 1511!

Adolph Jeff

Elizabeth Jeff

**GOOD LUCK
1511!**

**CLAN
MACKENZIE**

**TONY TRAMONTO
266-4830**

**MARIO LOGIUDICE
266-6225**

O. K.

Barber Stylist

RIDGE HUDSON PLAZA

**706 E. RIDGE ROAD
ROCHESTER, N.Y. 14621**

Congratulations

Team 1511!!



**6711 E. Washington Blvd.
Los Angeles, CA 90040**



SCJ Associates, Inc.
Proudly Supports
Penfield High School
Team 1511 Rolling Thunder

60 Commerce Dr.
Rochester, NY 14623
Phone: 585-359-0600
Fax: 585-359-0856
www.scjassociates.com



- Hot Dogs
- Hamburgers
- Trash Plates
- Fresh Fish served daily
- Phone orders welcome
- Daily Specials

Route 96, Victor
(across from Bristols)
924-4310
Open 7 Days!

Best wishes to **“Rolling Thunder”**
From all of us at Charlie Riedel’s

Now serving Breakfast Wed.-Sun. (Victor only)

Also: Rts. 5 & 20 Canandaigua 396-3420

• Rt. 104 Ontario 265-0863

• 1843 Empire Blvd. Webster 671-4320




Gordon Clark
Store Mgr.

GOODYEAR

DUNLOP
TIRES

Republic

ASE
TECHNICIAN

Goodyear Auto Service Center
1663 Penfield Rd.
Rochester, NY 14625
Phone: 585.248.2601
Fax: 585.248.8011

Best wishes Team
1511!



Penfield Veterinary
(585)-381-2441

Best of Luck Penfield High School Robotics Team!

from your friends at



FAMILY FIRST

FEDERAL CREDIT UNION

LOCATIONS

2520 BROWNCROFT BLVD *Penfield*

850 RIDGE RD *Webster*

6800 PITTS PALMYRA RD *Fairport*
Cedarwood Office Park

HOURS

Mon-Thr: 9 am - 4 pm; Fri: 9 am - 6 pm

Sat: 9 am - Noon

P: 585/586-8225

W: www.familyfirstny.com



Products Division



151 Perinton Parkway, Fairport NY 14450

CEM Group



72 Perinton Parkway, Fairport NY 14450

A Foundation of Design and Manufacturing Excellence

SenDEC president Kenton Fiske launched the company in 1972 as a custom electronics design firm. Mr. Fiske, who has seven patented designs to his credit, quickly established SenDEC as a leader in engineering expertise. The company flourished, serving the electronics design needs of Xerox, Kodak, and other leading manufacturers in Upstate New York.

SenDEC ventured into manufacturing in 1978 to provide customers with cost-effective, high quality PCB production and sub-assembly. By the mid-1980s, the company had earned a reputation for exceptional quality processes and customer service. To meet the growing demand for these services, SenDEC expanded into contract manufacturing, while continuing to offer customers the design engineering expertise they'd come to expect.

One of SenDEC's first contract manufacturing customers was a fledgling company with a novel idea solid state hour meters for gasoline engines. Mr. Fiske saw the potential, and when the opportunity arose, he bought the company. SenDEC's Product Group was born, and today boasts ten varieties of digital instrumentation such as hour & volt meters, tachometers and racing products that are marketed to OEMs and through distributors around the world.

SenDEC Corporation is a proud sponsor of the
Penfield Robotics Team 1511 Rolling Thunder

GOOD LUCK IN 2006!

www.sendec.com

**Good Luck Team 1511
Rolling Thunder!**

Proud sponsor:

**Bonadio Payroll
Services, LLC**

*Building businesses like yours with
cost-effective, quality payroll services.*

Contact Lauren Burns, Director, at 585-249-2770 for more information.

**Good Luck to the
Penfield High School Robotics Team!**

THE BONADIO GROUP
Business Consulting & More

171 Sully's Trail • Pittsford, NY 14534
585-381-1000 • www.bonadio.com

Good Luck to the
Penfield High School Robotics Team!



From:
UA Local #13
Plumbers & Pipe Fitters
Rochester, New York
Business Manager- John Perticone
Business Agent – Bill Kurtz

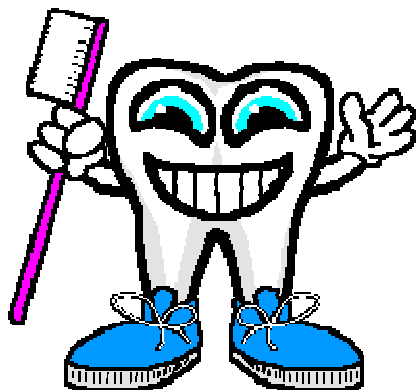
Go Team 1511!!

From Spoto Family Dental

(585) 254-4414

2005 Lyell Ave # 220

Rochester, NY



Hahn
PHOTOGRAPHIC

The Photographers' Complete Outfitter

tel: **585-254-5705**

fax: 585-254-4353

1035 Dewey Avenue • P.O. Box 13439 • Rochester, NY 14613

www.hahnphotographic.com



DON'S ORIGINAL

"Where Quality Predominates"

Street Address:

2055 Fairport Nine Mile Pt. Rd. • Penfield, NY 14526

**GO Penfield
ROLLING
THUNDER!!**

**From all of us at
Don's Original**



GOLDCREST Electronics

700 South Goodman St.

(Next to Highland Park Diner)

546-8464

www.golderestelectronics.com

Monday-Friday 8:00 - 6:00



Pre-Holiday Special

FM Transmitter for IPOD/MP3 Players

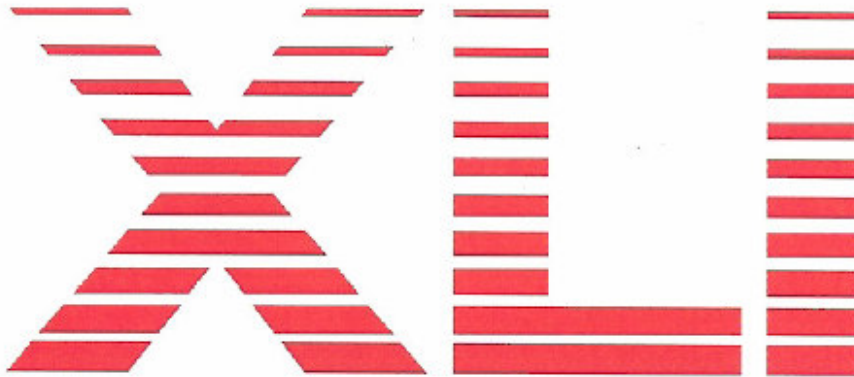
Only **\$12.95**

Half the Price of Other Stores

with coupon. Expires 7/01/06

/ 436-5699

PAID FOR IN



CORPORATION

55 Vanguard Parkway □ Rochester, NY 14606

Manufacturing complex products faster

Phone: 585-436-2250

Fax: 585-235-5260

www.xlionline.com

Good Luck Team 1511!!



Skeet and Trap Shooting

(585) 377-4851

3202 Atlantic Ave.

Penfield NY

Open every Saturday and Sunday

10 AM - 4 PM



Special Thanks to

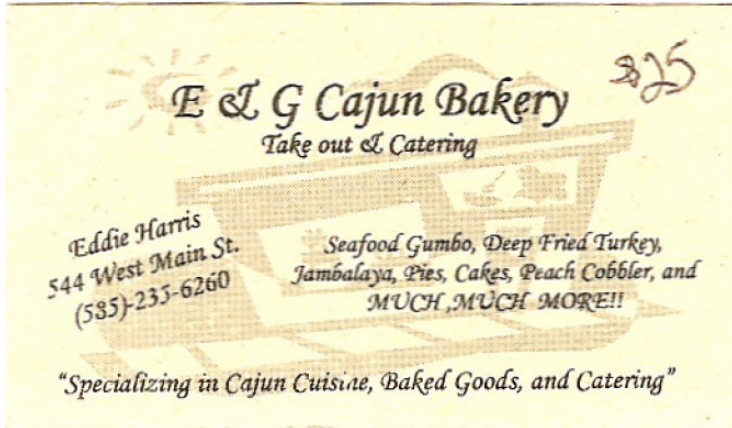
**The Penfield High School
Student Council**



Owners– Gar Zamanian
Nancy Gingold

Gitano's Frozen Yogurt/Custard
House of the best Italian Ices

Located at: 240 Waring Rd.
Rochester, NY 14609
Phone # (585) 266-0210



SUBWAY
eat fresh.

SUBWAY Panorama

1620 Penfield Road
Penn Valley Plaza – By Post Office

\$ 2.49 Daily 6" Specials - Everyday

\$ 3.99 Foot Long Subs on Tuesdays

Good Luck! Penfield High School Robotics Team



"Meeting today's manufacturing demand through excellence in quality, service and technology"

**Go Team 1511
Rolling Thunder!!
& Congratulations Josh!**



From

Steve & Lynne Donner



*This is the kind of advice you won't
get from Sage Rutty*

When it comes to developing a financial strategy, the last thing you want is a cookie-cutter solution. As Rochester's oldest investment and financial planning firm, Sage Rutty is dedicated to the local community and to providing convenient access to a growing and innovative array of investments and advisory services. Our financial consultants have access to in-house CFPs, CPAs, attorneys and insurance specialists who work to create a customized financial plan for you.

Discover how Sage Rutty can help you develop a financial strategy of your own. And we'll leave the cookie cutters at home. That's a promise.

SageRutty
And Company, Inc.

custom financial solutions

ROBERT J. FALVEY

1621 Jefferson Road, Rochester NY 14623 • 585.232.3760 • www.sagerutty.com

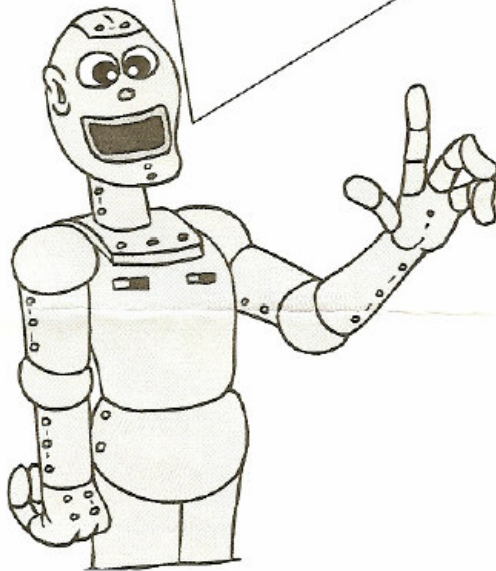
Gray Metal Products, Inc.

MANUFACTURERS

"Snap-Rite"

PRE-FABRICATED AIR DUCT & FITTINGS

**We proudly
support the
Penfield High School
Robotics Team**



**GOOD
LUCK!!**




FAX
(585) 226-9356

495 ROCHESTER STREET
AVON, NY 14414
SINCE 1922

PHONE
(585) 226-8660

JAMES P.
hermann D M D



ORTHODONTICS

2088 Five Mile Line Road
Penfield, New York 14526

585-385-8700

MEMBER AMERICAN ASSOCIATION OF ORTHODONTISTS



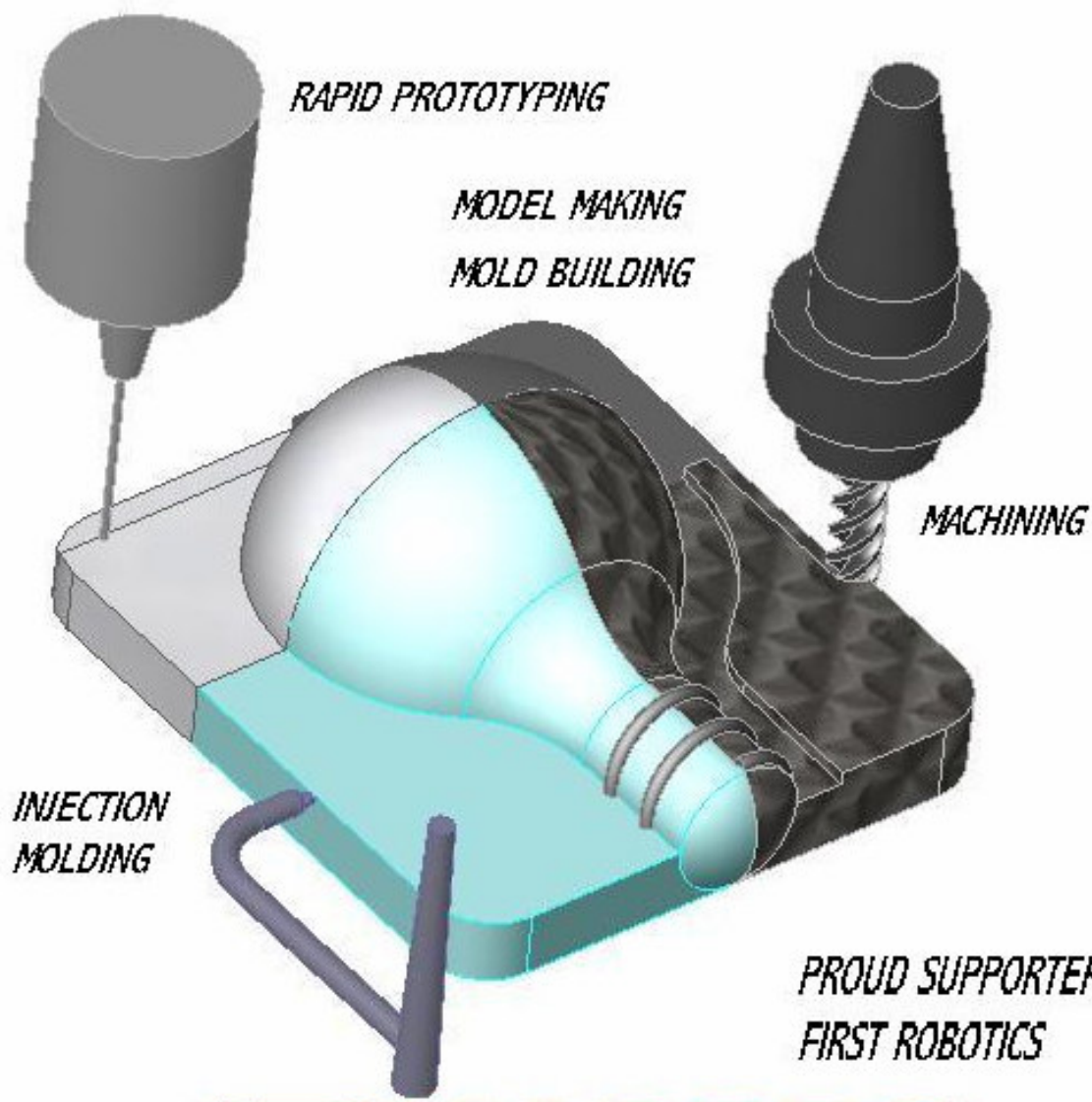
S a f r a n
Production Services Inc.

(585)-637-6530



Hairzoo®

(585)-586-3880



*PROUD SUPPORTER OF
FIRST ROBOTICS*



369 Route 104 Ontario, NY 14519-8999 585-265-0010

381-2910
Penfield

2107 Five Mile Line Rd.



381-2910
Penfield

2107 Five Mile Line Rd.

Hours: Sun.-Thurs. 10AM - 10PM; Fri. & Sat. 10AM - Midnight



1.800.457.8829

www.amteklhr.com

“Good Luck Penfield”

First TM Robotics Team

Macri's Italian Grille

(716) 297-9980

*6929 Williams Rd
Niagara Falls, NY 14304*



LAKE BEVERAGE CORP.
PROUDLY SUPPORTS
The Peatfield Robotics Team



LAKE BEVERAGE CORP. your local Distributor of THESE FINE BRANDS



GOOD LUCK TO THE PEATFIELD ROBOTICS TEAM!
Great success to all of you in your competition.



M.C.M. Natural Stone Inc.

Showroom: 860 Linden Ave., Rochester • (585) 586-6510 • www.mcmstone.com



Best wishes to the
Penfield High School Robotics Team!



(585) 223-9080 or (585) 377-8970
fairportsavingsbank.com

Congratulations

1511



Tammi Griswold

**Congratulations to Team 1511
for a successful Year!**

**Syma and Patrick
Mulich**

Arrow Kitchens Inc.
168 West Main Street, Webster, NY 14580 585-670-9910 Tel 585-670-9725 Fax



Walkways • Patios • Retaining Walls • Plantings •
Water Features • Irrigation Systems

TWIN OAKS



Lawn and Landscape

482-2990

Celebrating 20 years in business! www.twinoakslandscape.net

Good Luck Rolling Thunder!!



DODGE

VISION DODGE

920 Panorama Trail South
Rochester, NY 14625



Town & Country Travel
Proudly Supports the
Penfield High School Robotics Team

Good Luck Team 1511
Rolling Thunder!



Local Service, Global Resources

**732 Pittsford-Victor Road
Pittsford, NY 14534
(In Bushnell's Basin)**

Phone: 381-2850

Fax: 381-1987

E-Mail: info@towncountrytravel.com

Visit our website at
www.towncountrytravel.com

*Serving Up Profits...
With The Brands You Trust
For 60 Years!*

ALLEN ASSOCIATES
ESTABLISHED 1948

60 Saginaw Drive
Rochester, NY 14623
800-333-1478

penfield
FITNESS & RACQUET CLUB



penfield
FITNESS & RACQUET CLUB
7 day Free Trial Pass

name _____
PHS Robotics Team

667 Panorama Trail West, Rochester NY 14625
www.PenfieldRFC.com * 586-7777

Non-Members only, must be 23 or older to redeem, 1 per person

**Congratulations
Team 1511
From,**



PANORAMA COLLISION, INC.

108 N. Lincoln Road
East Rochester, New York 14445

1-800-219-6910
(585) 381-8699
FAX: 248-9574

www.panoramacollision.com



THE CABOT GROUP

MAXIMIZING THE VALUE OF OUR
CLIENTS' REAL ESTATE INTERESTS



PARK CENTRAL AT LINDEN OAKS • 130 LINDEN OAKS DRIVE, SUITE A • ROCHESTER, NY 14625
PHONE: 585-381-1500 • FAX: 585-381-1895



LANDMARK APPRAISAL SERVICES

Real Estate Appraisers and Consultants
N.Y. State Certification #45-6881

Howard Beaudrie

*NYS Certified and Hud Approved Residential Appraiser
Hud Approved 203k Consultant
Plan Reviewer & Inspector*

2859 Penfield Road, Macedon, NY 14502
(585) 377-1830 FAX (585) 377-1836
h.beaudrie@frontiernet.net

Chair Cane + Leather + Candlemaking + Beads + Friendly Plastic

Basketry Supplies + Jewelry

Craft Service

337 University Ave. Rochester, N.Y. 14607

(585) 325-5547

Macrame + Paper Pouch

Boondoggle + Ukrainian Egg Decoration + Plaster Molds + Clay

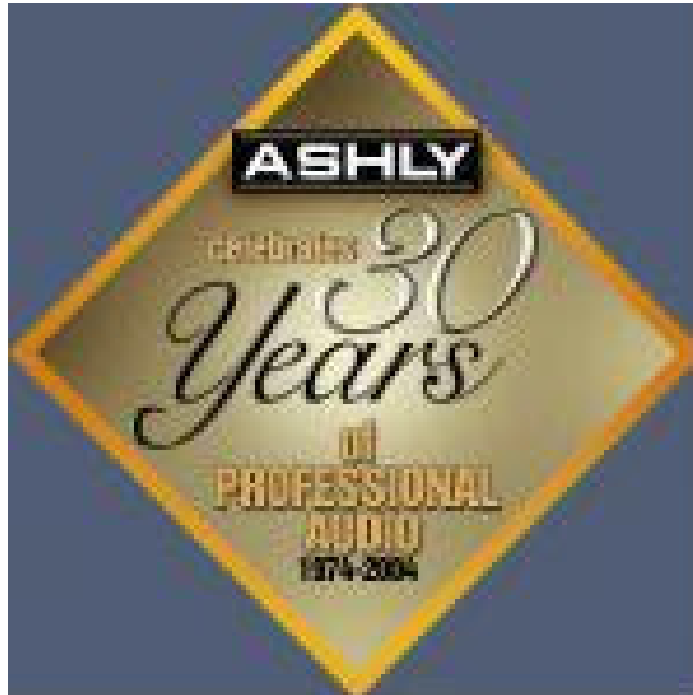
Go Rolling Thunder!!



(585) 586-8069

Good luck Martin and team at RIT and in Boston and Atlanta!!

The Maurer Family



With over a thirty year history, Ashly Audio Inc. is recognized as a world leader in the design and manufacturing of quality signal processing equipment and power amplification for use in the commercial sound contracting and professional audio markets. Our philosophy established from the very beginning is to offer only the highest quality audio products to the professional user.

(585) 872-0010

*Titan Custom Homes proudly supports
the Penfield High School
Team 1511 Rolling Thunder*



TITAN CUSTOM HOMES, INC.
Dreams Come True

3927 Arnold Avenue
Naples, Florida 34104
239.435.0301 Fax:239.435.0258

Best wishes and Good luck in 2006 Team 1511!



Clover Nursery
485 Landing Road North
Rochester, NY 14625
(585) 244-1626

**Congratulations
Rolling Thunder
& Jackie!!**



Eric & John Nielson

Great Job 1511!!



Dr. Terrence J. O'Keefe DDS

(585) 377-1670

21 Willow Pond Way

Penfield, NY 14526



**Quality Gasoline
Low Prices**

Proud Sponsor of
ROLLING THUNDER

Insulation

Seamless Gutters

Factory Built Fireplaces

Fireplace Marble & Mantels

Shower Enclosures

Closet Shelving

Central Vacuums

Custom Mirrors

100 Ontario Street
East Rochester, NY 14445

WWW. **MIG** Building Systems .com

"Top notch" quality, versatility, and quick turn around keep business booming at Top Notch Monogramming in Northfield Common. The in-house computerized embroidery business has been around since 1992 and provides more than monograms. Top Notch Monogramming also does heat press and screen printing on clothing, and will provide blank apparel (golf shirts, T-shirts, jackets, caps) or work with customer-provided garments. The shop caters to individuals, teams, schools, clubs, and corporate groups, and carries a large stock of pre-printed T-shirts with images of the Grateful Dead, Bob Marley, and environmental themes. No minimums. M-Th. 11-7, Fri. 11-6, Sat. 11-5.



Top Notch Monogramming

50 State Street • Northfield Common • 248-2650

Dr. Dave's Undaunted Do-It-All

World's Foremost Authority
Sees All / Knows All / Does All



Lawns / Plowing / Driveways
General Repairs: Painting / Plumbing
Electrical / Construction
Automobile Work

Phone (585) 359-0150

Michael J. Beyma

PARTNER

mbeyma@underbergkessler.com

www.underbergkessler.com

300 Bausch & Lomb Place

Rochester, NY 14604

585-258-2890 PHONE

585-258-2821 FAX

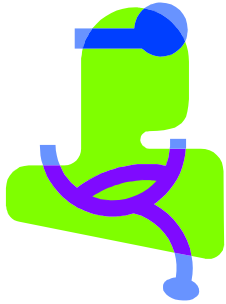


underberg & kessler LLP

CONGRATULATIONS TEAM 1511!!

Alex Bayley, Jim Bossert, Graeme Buckley, Adam Burns, Jessica Butler,
Ashley Cheney, Richard Doell, Mike Francis, Josh Goodman,
Bethany Griswold, Andrew Harlan, Mike Harlan, Patrick Harney,
Andrew Homan, Keith Kearns, Kyle Klofstad, Lorien Lee, Rika Lee,
Steve Manzoni, Mark Mascadri, Jackie Nielsen, Katie Nielsen,
Martin O'Hern, Alex Peach, Ricky Peach, Josh Ranieri, Rajeev Sharma,
Melanie Silvas, Ian Simpson, Cristian Smith, Collin Sowinski,
Annie Vongnaphone, Dillon Weerasinghe, Eric Wiegandt, Alex Wolf,
Steven Wolf, Rick Wood, Randy Zingo, Jesus Lopez, Robert Jackson

Gladbrook
Pediatrics



300 White Spruce Rd
Rochester, NY 14623
(585) 272-9460

***Best wishes
Team 1511***



Jon Everdyke



David Pasternak
New York Territory Manager

437 Pequot Avenue
New London, CT 06320-4498

P: 860-701-5202 or
800-443-2811

F: 860-444-1209

E: pasternak_d@mitchell.edu

W: www.mitchell.edu

Wendell Castle's Ten Adopted Rules of Thumb

1. If you are in love with an idea, you are no judge of its beauty or value.
2. It is difficult to see the whole picture when you are inside the frame.
3. After learning the tricks of the trade, don't think you know the trade.
4. We hear and apprehend what we already know.
5. The dog that stays on the porch will find no bones.
6. Never state a problem to yourself in the same terms it was brought to you.
7. If it's offbeat or surprising, it's probably useful.
8. If you do not expect the unexpected, you will not find it.
9. Don't get too serious.
10. If you hit the bull's eye every time, the target is too near.

**GOOD LUCK
ROLLING THUNDER**

from an anonymous patron

Alexander L. Strasser, MD



2479 Browncroft Boulevard

Rochester, NY 14625

(585) 381-4488

**Penfield High School
Robotics Team**

Proudly Sponsored By



JOHNHOLTZ ACURA

201 E. Linden Avenue • E. Rochester, New York 14445

(585) 385-5544 • www.holtzacara.com

Go Rolling Thunder!

From,

Robert Zingo & Family



POSTLER & JAECKLE CORP.

MECHANICAL CONTRACTORS

The Quality Contractor of Choice for Mechanical Construction,
Service and Maintenance for Western New York.

Good Luck Robotics!

Rochester Area
615 South Avenue
Rochester, NY 14620
Phone: (585) 546-7450
Fax (585) 546-4316

Southern Tier
731 Fox Street
Horseheads, NY 14845
Phone: (607) 739-5802
Fax: (607) 739-5823

Syracuse
6726 Townline Rd
Syracuse, NY 13211
Phone: (315) 455-5587
Fax: (315) 455-6258

Albany
1062 Central Ave, Suite 204
Albany, NY 12205
Phone: (518) 459-2020
Fax: (518) 459-2622

Team 1511 would like
to thank all of our
families, sponsors,
and advertisers for
their support.

Thank you!

David Tweedie,
D.D.S.



1795 Penfield Rd
Penfield, NY
(585) 385-1860

Best Wishes from Dick Ide...
Provider of
Excellent Products
& Service.

DICK IDE
PONTIAC HONDA

Panorama Trail at Rt. 441
586-2820
www.dickide.com



Go 1511!!
Rainbow Pediatrics

Good luck
1511!

James
Geib

Morgan Stanley
is proud to support
The Penfield-Harris First
Robotics Team

Michael C. Francis
*Vice President
Financial Advisor
585-385-5114*

Morgan Stanley
One client at a time.

300 Linden Oaks Ste 200 Rochester, NY 14625

**GOOD LUCK ROLLING THUNDER
FROM**



**U. ROCHESTER SCHOOL OF
ENGINEERING
AND
VIRTUALSCOPICS.COM**



L. David Soldi

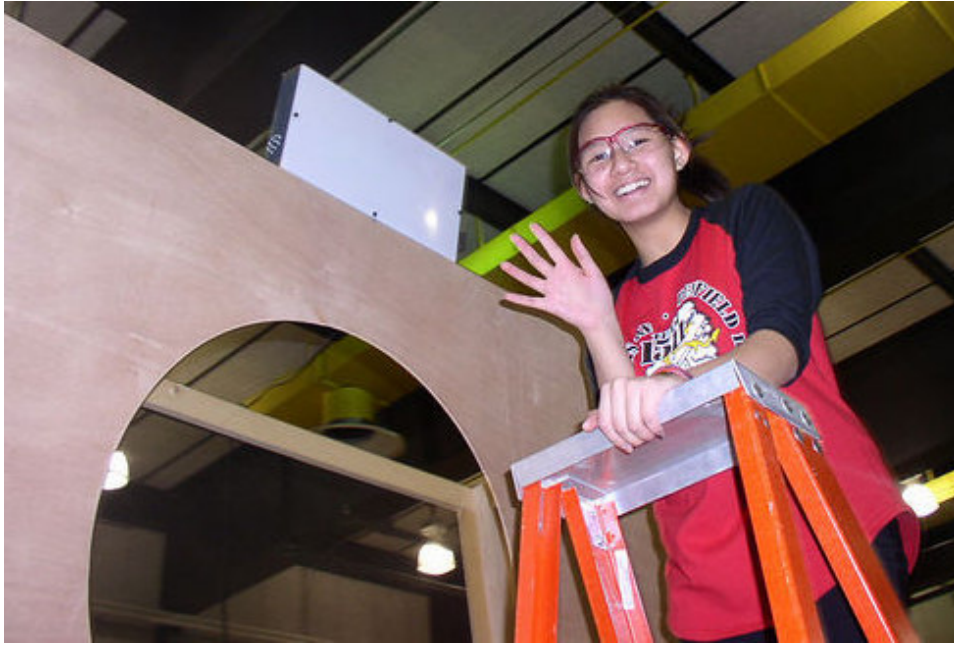


2132 Five Mile Line Rd. • Penfield, NY 14526
585-264-1760

**Team 1511 would like
to thank our mentors
for the time and
effort they put in to
help us learn
valuable skills!**

-The students

Watch for Us Next Year!!



Special Thanks for Printing this Booklet to

