

Cybersonics Technology Team 103 inspires students to discover and pursue their passions and FIRST's mission through commitment to teamwork, problem solving, gracious professionalism, and vision for the future. Despite being a team in a small, rural community containing no corporate presence, Team 103 has managed to prove that a small community can do big things.

GLOBAL CONTRIBUTION

FIRST Interactive Rural Support was established by Team 103 in July of 2002 as a service to the FIRST community in order to support, maintain, strengthen, and begin rural FIRST Robotics teams throughout the world. This network helps rural teams to overcome obstacles such as distance from potential corporate sponsors, and to increase community support, involvement and awareness. The program continues to grow and has become a model for other collaborative mentoring efforts in FIRST.

"Operating out of a small school facing the challenges of building critical mass in a rural community with little or no corporate presence - our Chairman's Award winner this year used that challenge to fuel innovation. This incredible team found a way to use the Internet to reach out and touch 40 teams from over 24 states and one foreign country that face the same challenges, and launched the FIRST Interactive Rural Support network - a cybersonic communications vehicle that enables rural teams to mentor, support, and learn from each other."

- 2003 J&J Mid-Atlantic Regional Chairman's Award Announcement

BUILDING UNITY

Being an established FIRST team is a year-round effort. In order to develop team unity, the team incorporates various methods of team building into its fall schedule.

"Developing strong relationships is perhaps the most important element of team building." - Dave Beck, Advisor

2003 - Departmental Training Workshops

2002 - Low Ropes Course

2001 - Team FIRST Day – Learning Styles,
Problem Solving, Decision Making

CYBERSONICS LEADERSHIP & SUPPORT

Cybersonics advisors and mentors lend valuable expertise and enjoy working side-by-side with students. They understand the impact they have on members and their future, and selflessly provide countless hours of dedication to the team.

FACULTY ADVISORS

Dave Beck, Cathy Beck, Rich Kressly

TECHNICAL MENTORS

Garrett Galluppi, Larry Carmen, Ken Dexheimer,
Pete Kieselbach, Andy Twigg, Jack Tusman, Sally Beck

PHS ADMINISTRATION / STAFF

Rich Heffernan – Principal

Bridgett O'Connell – Assistant Principal

Maryanne Momorella – Business Teacher

Palisades School Board



EIGHT YEARS OF SUCCESS

2003

- Championship Chairman's Award
- J&J Mid Atlantic Regional Chairman's Award
- 3 Website Awards
- 2 KPC&B Entrepreneurship Awards
- BAE, UTC, NYC Regional Autodesk Award

1997-2002

- 2 Time Championship AutoDesk Visualization Finalist
- 2 Regional Autodesk Awards
- 2 FIRST Regional Championships
- 6 FIRST Regional Awards



RESHAPING A SCHOOL

Being a part of the FIRST organization contributed to the Palisades School District's winning of the National Blue Ribbon award and has allowed PHS to form two new courses that parallel the FIRST experience. These courses in robotics and animation utilize Innovation First electronics and Autodesk software.

"What struck me was the compelling nature of this program and its ability to include a lot of students in a way that you might see paralleled in athletics. The teacher support, community support, and student interest were unusually high. The applications of real world technology and business know-how came to life dramatically in the Cybersonics Team."



- Ken McAuliffe, Superintendent, Lowville, NY & US Dept of Education Site Visitor

LOCAL CONTRIBUTION

COMMUNITY SUPPORT

Cybersonics holds two annual fundraisers, Basket Bingo and a spaghetti dinner, to raise money and educate the community about Cybersonics efforts. The local Kiwanis Club and many other organizations are frequent visitors to the team and show great support.

DONATING TO THE COMMUNITY

The annual clothing drive for the Good Shepherd Rehabilitation Hospital in Bethlehem, PA is one way Team 103 gives back to the community. Over the past two years, Cybersonics has also donated hundreds of canned goods to support Team 341's efforts to feed those in need.

LOCAL CABLE STATION AIRS 103 ANIMATION

A short video/animation sequence was compiled by Cybersonics members to be aired by a local cable company. Through this, Cybersonics was able to promote itself and FIRST.

SPREADING THE MESSAGE

Since its inception, Cybersonics Technology Team 103 has always spread the message of FIRST whenever and wherever possible. As the team has evolved over the last eight years, Team 103's audience has extended from Palisades High School, through rural Bucks County, PA, beyond the northeastern US, to a global community. As a successful and veteran team, Cybersonics accepts the growing responsibility for helping to ensure meaningful and lasting experiences for FIRST participants everywhere. Cybersonics shares its success stories with the goal of encouraging others to pursue meaningful futures.

INSPIRING THE FUTURE

The FIRST LEGO League is a way for the younger generation of students to do the same things that FIRST teams do, but on a smaller scale. In the fall of 2003, four FLL teams competing in the "Mission Mars" challenge were sponsored by Cybersonics. In all, twenty-two Palisades 9-14 year-olds were mentored by nine Team 103 student members who all competed at the Philadelphia, PA State Tournament. After spending two months together preparing, the group won two awards and more importantly developed an avid interest in FIRST. Also, it was because of Cybersonics efforts in FLL that parent Debbie Marek decided to dedicate her time to organizing a fifth team of eight students at Broughal Middle School in urban Bethlehem, PA.



GROWING MEDIA ATTENTION

For Team 103, gaining attention from the media in a remote location has taken effort and time. Proudly, over the past eight years Cybersonics has been featured on local television and radio broadcasts, as well as in newspapers and other publications. During the 2004 season, TechTV will follow the team as part of a special about FIRST Robotics. Following Cybersonics success, an increasing number of media sources have become more willing to tell the team's story and, more importantly, help spread FIRST's message on a local and global scale.

"As an international winner (and recipient of a dozen other honors from FIRST this year), the Cybersonics Team has much to be proud of. But they're not the only people celebrating. Their corporate sponsors at Amplifier Research are thrilled to see the results of the team's hard work."

- Amplifier Research Press Release, July 2003

"You can't underestimate the impact on the students. They're learning tremendous skills and really perform at an incredible level."

- Society for Biomolecular Screening News, Feb 2004

"It was amazing seeing the younger kids work together to form creative solutions to the MISSION MARS challenges."

- James Bean, Coach of Judges
Award Winning FLL Team 1647,
The Robotic Rockets

"I had so much fun and learned a lot working with my teammates and the high school students from Cybersonics."

- Kristin Jankowitsch, FLL Team 1649,
The Coconut Crew

COMMUNICATION



Cybersonics keeps sponsors, parents, alumni, the school, and the community informed and involved with the team through the team website at www.cybersonics.org and a monthly newsletter. By informing and updating Team 103 supporters of team events and successes, as well as giving them access to team pictures, calendars, sponsorship

information and recognition, and a wealth of information about FIRST, Cybersonics effectively maintains a highly responsive communication system and continues to bring knowledge of FIRST and Cybersonics more individuals and corporations.

GOVERNMENT RECOGNITION

Since Cybersonics' outstanding 2003 FIRST Robotics season, school, local, state, and federal officials have recognized Team 103 for its accomplishments and for the unique learning opportunities it provides for students. In all, the team received official citations from the Palisades School District, Governor of NH, PA House of Representatives, PA Senate, and the US Senate. Most importantly, through these recognitions, government officials have become supporters of FIRST Robotics, fully understanding the impact of the program.

"The work you have done and the sacrifices you have made have certainly deemed you worthy role models."

- Arlen Specter, United States Senate

"I commend you on your hard work, energy, and commitment you have given."

- Craig R. Benson, Governor of New Hampshire

"The Commonwealth of Pennsylvania congratulates the Palisades High School 2003 Cybersonics Technology Team on its outstanding performance at the 2003 FIRST Robotics Competition and notes with pride the hard work and commitment which the team members manifested in earning this meritorious award."

- Charles T. McIlhinney, Jr., PA House of Representatives

The Team 103 tradition has always been one of high expectations and vast improvement. With 33 students, ten mentors, and three teachers involved on a year-round basis, Cybersonics has had a tremendous impact on the school, members, alumni, and the FIRST community and believes it is its obligation to ensure meaningful experiences for all involved. Cybersonics has opened doors and has provided opportunities for student members, alumni, mentors, and advisors that only exist because of participation in FIRST Robotics.

BEYOND FIRST

BeyondFIRST is a website that connects participants of the FIRST community to futures in engineering, science, and technology. Launched for public use on November 25th, 2003, www.beyondfirst.org provides connections to high school internships, college internships, and career positions for present and former FIRST participants. Created in hopes of completing FIRST's vision of a changed culture in which engineering, science, and technology are held in the highest regard, BeyondFIRST gives team members the essential link to internship opportunities and job positions, while allowing FIRST sponsors to search for qualified applicants in their specific career fields. BeyondFIRST has received positive reviews from the FIRST community, with already over 40 resumes posted from all over the United States including Connecticut, New York, North Dakota, and Pennsylvania.



www.beyondfirst.org

"This is fantastic and I sincerely hope that this helps not only me, but everyone else in the FIRST community."

- Sarah Reffler, College Student from Team 1089

FIRST OPENS DOORS

Over the summer, two members of Cybersonics, Brandon Reiss and Jess Jankowitsch, had the opportunity to shadow professionals and work within scientific and technological fields because of their participation with Team 103 and FIRST.



Reiss worked with one of the Cybersonics sponsors, BAE Systems, for the past two summers, helping to classify signals using a neural network and creating an antenna test mount.

"It was one of the many rare and valuable experiences that has been made possible through Cybersonics and FIRST."

- Brandon Reiss



Jankowitsch shadowed Dr. Bart Kamen for a day at the Cancer Institute of NJ and went to the National Youth Leadership Forum on Medicine for ten days in San Francisco.

"The opportunities I have been presented with because of FIRST have given me amazing insight into my prospective career fields."

- Jess Jankowitsch

DISTRICT WEBSITE

During the 2003-2004 school year members of Cybersonics' award winning web design group worked closely with district technology staff to redesign the Palisades School District website. The district has been a staunch supporter of the team since its inception and Team 103 welcomes any opportunity to strengthen that bond. The new site will be launched before the end of the school year.



ALUMNI MENTORS

Cybersonics alumni mentors provide one-on-one guidance to our newest student members as well as make contributions to the entire team. Alumni Pat Bogard, Rob Carozza, Allison Guerin, Tina Haskins, Jamie Schulberger, and Kathryn Urbanowicz have donated time out of their busy college



lives to assist the new generation of FIRST members. By aiding the rookies in finding their way on Cybersonics and the FIRST organization, alumni are able to stay involved with the team and new members are able to gain valuable advice

and insight from those who have come before them.

"Mentoring it is a chance for me to follow up on an important investment and to continue to be part of something I believe in."

- Kathryn Urbanowicz

ADVISORS' IMPACT

Since the summer of 2003, Cybersonics' three advisors, Cathy Beck, Dave Beck and Rich Kressly have all taken advantage of opportunities to give back to the FIRST community in addition to Team 103 responsibilities. Cathy Beck works as a member of the FIRST Hall of Fame committee, helping to promote the Hall of Fame and Chairman's Award, in addition to aiding other teams with Chairman's Award submissions. Dave Beck has shared his robotics curriculum with many other high schools and conducted a rookie workshop for all new teams at the 2004 remote Kick Off in Philadelphia. Kressly is in the process of co-authoring a FIRST Chairman's Award guidebook with Mike Sperber from Team 175 that is aimed at inspiring more teams to submit Chairman's Award entries.

DEVELOPING PARTNERSHIPS

Since becoming a member of the FIRST Hall of Fame, Cybersonics has realized its obligation to expand and cultivate partnerships of all kinds that advance its own growth and the growth of FIRST. Through collaboration between team members, mentors, advisors, parents, sponsors, and numerous other FIRST teams, Cybersonics consistently demonstrates that FIRST is about much more than robots.

TEAM 103 PARENT NETWORK

The 2004 season has seen extreme growth in Cybersonics' parent support network. With a solid foundation laid out gradually over the years, the recent boost in parent involvement has taken the team to new heights, increasing the team's productivity and strengthening the ties between the parents and team members.

- **DEBBIE MAREK** - Head of Parent Network, initiates parent-run fundraisers for team and organizes meal schedule.
- **MARLENE NEWSOME** - Aids in project for the redesign of school website by sharing her knowledge of photography.
- **LEE FLEISCHMAN** - Helped to prepare over 200 meals for the Spaghetti Dinner and assists with financial and accounting systems.



SHARING EXPERTISE

While in New Hampshire for the Chairman's Award Hall of Fame Reception in July 2003, Cybersonics visited with other BAE Systems sponsored teams in Nashua. Through presentations to teams 151 and 166 and BAE Systems management, Cybersonics shared its team structure, insights into fundraising, technical & software skills, and its experience in nurturing community relationships.



"I'd like to thank Team 103 for a wonderful presentation about their team structure. The presentation was very informative and you were all very nice. I am glad to have met you all."

- Anne George, Team 166

COMMITMENT TO FIRST

As a successful veteran FIRST team, Cybersonics has assumed the responsibility of aiding other FIRST teams. Working with both veteran and rookie teams from all locations, members and mentors from Cybersonics have dedicated themselves to developing productive partnerships with these teams and their members, helping them along the path towards success in all aspects of the FIRST experience.

"I figure, if you're going to ask for help, go to the best for a source. I will thank you in advance for any help that you can give us!" - Anne Hall, Team 88 - TJ2

BUILDING ALLIANCES

Cybersonics has successfully strengthened the ties between its team members, as well as among other FIRST teams, through its comprehensive scouting operation. Having greatly evolved over the past three years, scouting has become a student maintained initiative, allowing each team member to take on a meaningful role at FIRST Regional and Championship competitions. Cybersonics cultivates thorough, progressive means of communication among team members and mentors, consisting of daily meetings between



scouts and the team's head strategists and drivers, nightly assemblies of the scouting group, as well as discussions with fellow competitors about their own abilities and match preparation. This group-oriented process has helped Team 103 become excellent

competition strategists and a more cohesive team. This process has been shared with other teams that seek the same expertise, sense of belonging, and unity.

GROWING SPONSOR SUPPORT

Since its inception eight years ago, Cybersonics has received enormous support from its sponsors. Amplifier Research, Lutron Electronics, and Custom Finishers Signs have all been zealous supporters of Cybersonics and the FIRST program. These sponsors have provided the team with financial backing and technical mentors every year. Team 103 has also received continued support and sponsorship from BAE Systems, Tinicum Research Company, and the Palisades School District. The 2004 season, through a number of corporate presentations given by the team's officers, has cultivated new partnerships, further strengthening Team 103's self-sustaining program. New partnerships have been formed with corporations including:



- **DAY TOOL & MFG., INC.**
Whitehouse, NJ
- **HARRO HÖFLIGER**
Doylestown, PA
- **LABORATORY ROBOTICS INTEREST GROUP**
Martinsville, NJ
- **SOCIETY FOR BIOMOLECULAR SCREENING**
Danbury, CT