



TEAM 334

The Tech Engineers

Brooklyn Technical High School



FIRST's Impact on Brooklyn Technical High School

Six years ago, eighteen senior mechanical engineering students entered in the US FIRST Robotics Competition (FIRST). At the time New York City teams were rare and few. Those eighteen members drove their way to Philadelphia and finished second place as well as taking "Rookie of the Year" and "Featherweight Robot" Awards. They maintained that FIRST was in essence the spirit of Tech: its aim was also to inspire, create, think, and apply theoretical solutions. A year later Robotics became a 10th period elective and its members numbered thirty-five. This was the beginning of the 'Robotics' evolution that would occur at Brooklyn Tech.

A year after Robotics was introduced as an elective, it was brought into the mainstream curriculum. It would be offered as one of the sophomore technology classes along with machine shop, wood shop, and technical drawing. Today robotics has 60 members in its class and over 90 members in the club. Future prospects may include the creation of a new technology major with robotics as its focal point within the next two years. FIRST has become an eminent part of Brooklyn Technical High School.

The Connection of FIRST and Brooklyn Technical High School

Dr. Albert L. Colston, engineer and educator, saw that education needed to keep pace with the latest technological advances of the era, particularly with the onset of the Industrial Revolution in the late 1800's. On September 11, 1922, Brooklyn Technical High School opened its doors, with an enrollment of over 2,400 students. Brooklyn Tech was built on a foundation of motivating its students to pursue careers in sciences, engineering and technology. We share that vision with US FIRST. The Chairman's Award reflects the commitment made by our predecessor. Hence, it is no surprise that we are adamant about the Spirit of FIRST. For us, FIRST is not just a competition, it is a collaboration!

The Significance of Winning the NYC Regional FIRST Chairman's Award



2003 TEAM

NYC Regional Chairman's Award Winners

The Chairman's award is not about being number one. For Team 334, it is about dedication, determination and stamina. It proves to other inner-city teams that although we may not always have the best resources, it is the spirit of leadership, service, and contribution that makes us successful. The honor bestowed upon the recipients of the Chairman's award will motivate all those who did not have faith, the desire to bring out the best in their team and share an experience that has molded all participants in FIRST.

SPONSORS (PAST AND PRESENT):

Brooklyn Technical High School Alumni (BTHS) Association
Security Industry Automation Corp. (SIAC)
Consolidated Edison Corp.
Home Depot
Keyspan Energy Corp.
Cakes-n-Shapes
Domino Sugar

TEAM #334 PROFILE

FRC Member: 6 years
FLL Member: 2 years
FIRST Robotics/Lego Members: 115
Rookie Student Members: 45
Club Members: 30
Senior Members (2+ years with FIRST): 9
Teachers: 5
Mentors: 5

TEAM 334: THE TECH ENGINEERS

2003

- Mentored two FIRST Lego League (FLL) teams for the FLL Competition
- Volunteered for NYC FIRST Remote Kickoff
- Assisted with Kickoff event and workshops
- Adopted and mentored two Rookie New York Teams; Economics & Finance HS and University Neighborhood HS
- Opened our FIRST workshop to other teams that required assistance
- Assisted Science Skills Center HS on P-Basic programming
- Coordinated a second NYC FIRST Family Team Rally Event
- Winner of the 2003 New York City Regional Chairman's Award

2002

- Partnered with the FIRST Team Westinghouse and Polytechnic University students in running the Siemen's FIRST Robotics Workshop for veteran and rookie teams
- Constructed a K.I.S.S. robot as a tutorial for New York City Teams while mentoring rookie teams
- Participated in the Polytechnic University Open House Demo of FIRST Robotics
- Started and mentored two FLL Teams
- Competed in the New York City US FIRST Robotics Competition (FRC)
- Volunteered for general assistance at the New York City FRC
- Assisted team #713 Rice HS with technical problems at the NY FRC
- Opened workshop at NY Regional to other FRC Teams
- Conducted a Brooklyn Tech HS Alumni Day Demo and Presentation of robot
- Volunteered for the 2002 FLL NY Regional Competition
- Displayed our robot at the Hall of Science
- Winner of the Presidential Award

2001

- Mentored rookie teams from Stuyvesant HS and Arts & Sciences HS in design and strategy
- In conjunction with SIAC, hosted a family day for 11 New York City teams to share ideas
- Competed in New York City Regional FRC and became a finalist
- Presented our robot and team at Brooklyn Tech's Alumni Day
- Volunteered for NYC Regional FIRST Lego League Competition
- Opened our workshop to Stuyvesant HS after they were displaced due to the events of September 11th

2000

- Encouraged and motivated other New York high schools in establishing their FIRST robotics team
- Competed in the Long Island FRC
- Presented our robot and team at Brooklyn Tech's Alumni Day
- Displayed our robot in an exhibition at our sponsor SIAC

1999

- Rookie Year: Philadelphia Regional (FRC)
- Finished 2nd place in final round
- Winner of Rookie of the Year Award
- Winner of Featherweight Robot Award

Upcoming

2004

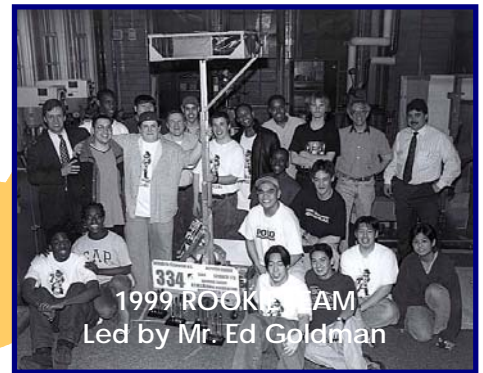
- Host FLL tournament at Tech
- Open up machine shops to teams
- Demonstrate Robot at Alumni Events
- Volunteer at FIRST Robotics and LEGO events
- Increase team membership from 95 to 120 members
- Build practice fields for robotics and LEGO teams to practice
- Promoted FIRST at a Pace University Alumni Event
- Demonstrate robot at Brooklyn Tech Freshman orientation
- Being recognized by Alumni Association for contributions to Brooklyn Tech
- Co-host and conduct Siemen's Workshops at Polytechnic University

TEAM 334: THE TECH ENGINEERS

Brooklyn Tech has been recognized by US News and World Report as an outstanding high school as well as a New American High School

"Your workshop gave our team new hope in becoming competitive at the State Tournament."

49% of the school's 4,200 plus population is female.



"Your team should be renamed as the Ambassadors for New York FIRST!"



98.4% of graduating seniors receive over \$40 million in scholarships and grants.



35% of the school is Asian.

"The workshop you organized was FANTASTIC !!!!! For a newbie like myself I learned a lot.."

25% of the school is African American.



"You have rescued us from a Lego disaster!"

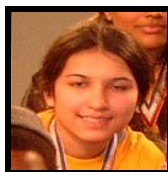


TEAM 334: THE TECH ENGINEERS



Alumna
RAVINDER KANG
YEARS INVOLVED: 3

"Rather than showing me the lack of females in engineering, the FIRST experience and robotics competition have shown me that this was a field with opportunities and possibilities."



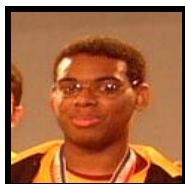
Public Relations
ROGAITE SHAFI
YEARS INVOLVED: 2

"I have found that in robotics, engineering isn't the main part. There are other components like friendship, respect, time management, communication, and financial budgets. Everyone, from amateurs to senior members has something to learn and contribute."



President
DAVID DIAZ
YEARS INVOLVED: 3

"One of the biggest things that I have learned is teamwork, being able to accept help from someone else. F.I.R.S.T. has given me an appreciation for math, science, and engineering encouraging me to change my intended major from Chemistry to Chemical Engineering."



Electronics/Programming
CHRIS JIMENEZ
YEARS INVOLVED: 4

"Being on Team #334 for four years exposed me to the mechanical, electrical, and design side of engineering as well as programming and team management. Every year, the team gets together for the competition and every year we have fun!"



Structure/Machining
KONSTANTIN LEVENTUL
YEARS INVOLVED: 2

"FIRST has solidified my want to be in the technology industry. I think that if I had not joined FIRST in my sophomore year, my choices in life and my career path would be much different."

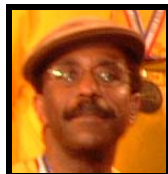
NEW MEMBERS CORNER!!!

"When I first arrived in High School I was afraid to join any clubs or teams thinking I wouldn't fit in or wouldn't like it. I started to learn about US FIRST and what the robotics team was all about. I never thought I would fit in on a team and I was wrong."

- Aneesha

"I joined FIRST because my friend encouraged me to try it out! I honestly did not like engineering but since joining FIRST I have changed my mind. I enjoy the engineering and the process of building a machine."

- Adeniki



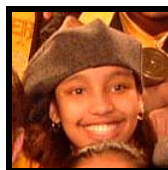
Advisor/Mentor
GORDON WILLIAMS
YEARS INVOLVED: 4

"When I first heard of this program, I thought it would be a great learning vehicle for students. I was right! Students learn the design process. They learn about compromises that have to be made in design and how to plan. The list of the benefits is endless, FIRST is just a great idea."



Vice President
DEVAUGHN LANE
YEARS INVOLVED: 3

"I have reinforced my decision of choosing Engineering as my field of study, a field where minorities are rarely seen. FIRST has given me hands-on work and preparation. FIRST appreciates the hard work regardless of race, class or gender."



Fundraising
ANIELLA MCGUIRE
YEARS INVOLVED: 2

"FIRST means experience, learning, socializing, fun, and a life-long memory. Before this club, I decided to major in Math, and become a teacher, now I plan to major in electrical engineering. Maybe I'll go back to Tech one day to teach it!"

Why change the world?
To me that's what life is about. If you don't do that, you might as well hibernate and sleep. If everyone thinks what you do is "normal" . . . it probably is. Why do that?
Do something else!
- Dean Kamen

Though FIRST hasn't changed the world yet, it has deeply affected the Brooklyn Tech universe. Robotics has evolved from an extra-curricular activity into the school's core technology curriculum. Because of the performance and influence of the Robotics team, Tech is considering bringing back mechanical engineering as a major. In continuing with our effort to spread the word of FIRST, Brooklyn Technical High School hopes to create an all-girls team, becoming the first school to have two separate teams competing in the NYC Regional.