

# The 1995 U.S. FIRST Competition

*For Inspiration and Recognition of Science and Technology*

U. S. FIRST is a nonprofit [501(c)3] organization whose mission is to create a demand for science and math learning. This effort is guided by a coalition of national leaders from business, government, education and the media.

The U.S. FIRST Competition is the national creative engineering contest featuring school, business and university partnerships. Played out in the spirit of sport, the U.S. FIRST Competition immerses high school students in the exciting world of engineering.

Teaming up with engineers from businesses and universities, students get a hands-on, inside look at an engineer's profession. In seven action-packed weeks, students and engineers work together to brainstorm, design, construct and test their "champion robot" which competes in a National Championship complete with referees, cheerleaders and time clocks.

The result is a fun, exciting and stimulating environment in which students can discover the important connection between classroom lessons and real world applications.

## **New partnerships, new opportunities**

The U.S. FIRST Competition presents exciting opportunities for all participants. Ongoing partnerships developed between schools, businesses, and universities provide an exchange of resources and talent, highlighting mutual needs, building cooperation, and exposing students to new career choices.

The U.S. FIRST Competition gives schools, businesses, and universities the opportunity to join together as leading institutions in their community and around the nation in an exciting, hands-on educational program to motivate the next generation of technologists, engineers and scientists.

*"Our partnership with NYPRO and association with U.S. FIRST has proved itself time and time again, not only with our tremendous success in U.S. FIRST, but with the numerous great students, staff and business people across the country with whom we have had the opportunity to meet, compete against and learn from."*

**Leo R. Bachant**  
Assistant Principal  
Clinton High School, MA



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*"I became a teacher to help students and to show them that learning is fun. U.S. FIRST does that and much more. It is an education not only to the students, but to the adults as well. Nobody who joins our team is ever the same again."*

**Gene Gordon**  
**Physics Teacher**  
**Joseph C. Wilson**  
**Magnet High School**

## Building your team

Building a strong relationship with your school partner is essential to the success of your U.S. FIRST Competition experience. At the outset identify two lead engineers in your organization who will serve as key contacts with U.S. FIRST and your school partner.

Call your local school administration office to find out if a particular staff member handles school/business partnership programs. That person may be able to help you find a school that would most benefit from this kind of program. Otherwise, call your local high school principal directly and arrange a meeting to explain the program.

Get your whole company involved. You can even create a model, minicorporation to capitalize on the cross-section of skills needed for a team to reach a common goal.

## Team partner responsibilities

In addition to the design and build effort, team partners are responsible for providing transportation, food, and lodging for any team member attending the Kickoff Workshop, Regional Competition and National Championship.

## Competition Structure: Regionals!

The 1994 Competition reflected the increasing recognition of the importance of science and math learning, with a 75% increase in the number of participating teams. To continue to spread the word and increase the demand, the 1995 Competition will have **both** regional competitions and the National Championship.

All teams are invited to attend a regional competition and/or the National Championship. The top teams from each region that attend the National Championship arrive seeded; other participants will be seeded after the first day of play.

Competition sites will be determined based on sponsorship interest and team distribution.

*"It's great for me, because I'm going into computer science. I also do sports--well, I used to--and I like this better because it takes more, mentally, than sports does."*

**Jason Zigmont**  
**Sophomore**  
**Berlin High School**

## D A T E S

- ▲ Early Bird Registration .....June 15, 1994
- Securing Regional Host location ...June 15, 1994
- Kickoff Workshop .....January 6, 1995, Manchester, NH
- Regional Competitions .....Timeframe: end of February 1995  
Locations to be determined.
- ▲ National Championship .....Timeframe: end of March 1995  
Location to be determined.

*"It is a winner for the kids and the companies who compete and will be a winner for our country."*

**George Fisher**  
**Chairman & CEO**  
**Eastman Kodak Co.**

## Parts

To participate, each team must register and pay an entrance fee prior to the start of the Competition in January--see next page. Typically, corporate sponsors pay the registration fee which provides:

- the Kickoff Workshop led by Dr. Woodie Flowers of MIT
- a kit of parts and a hardware list to be used for building the robot. The kit changes each year as does the challenge your vehicle must meet. This information is not available until January at the annual Kickoff Workshop where the game structure is revealed.
- a guaranteed spot and positive publicity as a supporter of U.S. FIRST
- complimentary tickets to the National Awards Celebration and a tax deduction.



# Suggestions for Securing a Sponsor

*for the*  
**1995 U.S. FIRST Competition**

- *Who do I contact?*
- *What do I say?*
- *Where should I start?*
- *When do I begin?*
- *How do I convince a sponsor to sign on?*

Securing a team sponsor, a company or university that will provide engineering support and financial sponsorship, is possible, even if you aren't the decision-maker or budget director!

Whether an enthusiastic corporate employee, an interested school teacher, or curious parent, you can make a team happen.

Try some or all of these suggestions, and as always, U.S. FIRST will help however possible. Before you know it, you will be building a robot!

## SOURCES FOR SPONSORS

Team sponsors have typically been a single corporation or university. However, as the program grows, new three-way partnerships are being created between multiple smaller companies, or a company and a university, and a high school from their local school district.

Choose a partner company, university, or school in your area and call them to discuss the Competition, or send them information about it. The more individuals in an organization that are excited about becoming involved, the easier it will be to put together a team.

Additional potential sponsors can be identified by calling your:

- ▲ local Chamber of Commerce
- local or state Business and Industry Association
- business/education partnership groups set up by your state

Ask for the names of any local companies that typically sponsor educational endeavors or that have employee volunteer programs.

340 Commercial Street  
Manchester, NH 03101  
Phone ...603-666-3906  
Fax .....603-666-3907

# DEVELOP YOUR RESOURCES

Call or write to the top executives or directors in your potential sponsor organization and ask them to partner with you for the Competition.

The U.S. FIRST Competition is an engineering-intensive contest.

When deciding which organization to contact as a sponsor, choose wisely: be sure their personnel have hands-on experience and engineering training. That is not to say you must choose a heavy industrial company or manufacturer. Think broadly, but do your homework, too.

Decisions that come from the top usually have overall support. Write to the head of the company, the engineering division, and/or the community relations department. If you don't know their names, call and speak with the human resources department.

If you have difficulty getting their names, try looking up the company at the library. Or, find out if there is a community relations department or school/industry partnership program and speak with the top person there.

Send them information on the Competition--call U.S. FIRST if you need additional copies of articles, event programs or videos.



Those of you who are parents or aunts or uncles, know how hard it is to say "No" to an excited teenager—especially when the object is a learning-related project. Take advantage of this and start by getting a group of potential student team members to spread the word at home.

Many teams encompass parent-child partnerships—you never know whose father, mother, aunt, or uncle is an engineer or corporate decision maker who could help make sponsorship a reality.

Organize a recruiting assembly at school. Show a video in a heavily trafficked area or in the cafeteria and have information available which the students can take home. Call U.S. FIRST for the name of a team near you and have them bring their robot for display.

Recruit teachers from outside the science or math departments. Art classes can help design team logos, computer instructors can teach programs, and the shop or tech ed teachers will be valuable resources for everyone.

Some schools even have their own in-house broadcast facilities. Use them to help spread the word and recruit support by showing videos of the Competition.

Excite the school administration, too. They can facilitate open houses, school assemblies, pep rallies, and facilities for meeting or working. Again, you never know whose spouse or relative may be in a position to put together a sponsorship.

## WAYS TO SPREAD YOUR MESSAGE

Expand your list of resources to include individuals or organizations that would be valuable assets to your team in non-technical ways. Announcements describing the program, volunteer opportunity listings, and student-written articles asking for support may get the message out to potential team sponsors in less direct routes. Try any or all of these:

### ▲ NEWSLETTERS

Write an article for the newsletter of a corporate, school, or appropriate organization/association (an engineering or teacher group).

### ● NETWORKS

Announcements broadcast electronically on Bulletin Board Systems and E-mail can send your request both interoffice and nationally.

### ■ PRESENTATIONS

Show a video of the Competition to your local Kiwanis, Rotary or Lions club or other local groups which typically sponsor educational programs.

### ▲ NEWSPAPERS

Letters to the editor in local publications, articles by students or advertisements can reach just the right person to facilitate sponsorship.



*"Many [students] have never been exposed to the process of getting satisfaction out of math and science. This does it."*

**Dr. Woodie Flowers**  
Professor of  
Teaching Innovation  
Massachusetts  
Institute of  
Technology

## Fees and Registration

Our participants have provided us with the best advice for corporate and university team partners: "Start now!"

Complete the company/university information portion of the registration form and return it to U.S. FIRST with your fee. The full amount (or a purchase order) must accompany your completed registration form. You may send us the team member and high school partner information later.

While you can enter a team at any time before January 6, 1995, *Early Bird Registration* by **June 15th** for *Full Participation* provides some "FIRST Aid"--funds which help us expand the program.

Please call Jessica Forbes if you have questions or need additional information.

## F E E S

- ▲ **Full participation: Regional competition and National Championship** .....\$6,000.
- Early Bird Registration: Send in your form and fee by June 15, 1994** .....\$5,000.

- **Regional Competition only** .....\$3,000.

- **National Championship only** .....\$3,000.

Make checks payable to: **U.S. FIRST**

340 Commercial Street Phone .....(603) 666-3906

Manchester, NH 03101 Fax .....(603) 666-3907

U.S. FIRST is a nonprofit 501(c)3 organization.

## The U.S. FIRST Competition Awards

- ▲ **National Champion Award.** Awarded to the team which wins the National Competition.

- **Chairman's Award.** This is awarded to the team which demonstrates the most outstanding partnering effort while seeking to fulfill the goals of U.S. FIRST. Components of partnerships include student involvement, sportsmanship, effort and overall cooperation and effectiveness between school and team partner(s). This record of your work is submitted before competition begins and may include any combination of video footage, photos or written chronicle.

- **Judges' Awards.** In addition to the Chairman's Award and the National Champion Award, U.S. FIRST has established a series of additional awards to recognize outstanding efforts. These include:

- Procter & Gamble Creativity Award
- Chairman's Awards Honorable Mentions
- Most Creative Design
- Outstanding Defense
- Best Team Spirit Display
- Number One Seed
- Rookie(s) of the Year
- Best Offensive Round
- Best Sportsmanship
- Most Photogenic

*"Thank you for including me as a judge for the 1994 U.S. FIRST Competition. It was, without a doubt, one of the most enjoyable, exciting activities in which I have been engaged. ... I look forward to working with you in the future to continue this important effort."*

**Dr. Jane Stutsman**  
Deputy Assistant Director  
National Science  
Foundation

# The U.S. FIRST Competition

## What people are saying ...

"Dean came into my office and said, now, if these corporations can sponsor Olympic athletes, why isn't it a great idea that they encourage young scientists the same way. And he's absolutely right about that."

*President George Bush, June 23, 1992*

"The competition truly is a fine, creative example of what can be done to excite the next generation about science and technology and motivate young Americans to the pursuit of scientific and technological excellence."

*President Bill Clinton, March 27, 1993*

"The message is clear—the commitment of the world's best engineers to be new role models for our nation's youth can make a difference. ... No other program has the potential to influence so many young minds while reinforcing the national goal of being a world leader in business and education."

*Paul A. Allaire, Chairman & CEO, Xerox Corporation*

"I'm convinced it's the lowest cost, most effective approach to really change the attitudes of our youngsters to science and technology. We'll be continuing to do what we can to further this objective. The kids on these teams become heroes in their schools, just like the football players. ... This peer acceptance is what it takes to make them want to study science."

*Gordon F. Brunner, Senior Vice President,  
The Procter & Gamble Company*

"You walk in and the first thing you see is pride on the kids' faces."

*Roxanne Goodman, parent, Freeport High School*

"I have seldom felt so much energy ... From my standpoint, what was most valuable was to see young people show the enthusiasm, interest and commitment, along with their families and friends, in an area that promotes science and technology in our society."

*David W. Ellis, President and Director,  
Museum of Science of Boston*

*"The thrill of the kids participating in this is just unbelievable. They're engaged. They're involved. They're thinking. They're working together as a team."*

*Roland Schmitt  
President Emeritus  
Rensselaer Polytechnic Institute*

"The kids have already won. They're making new friends and have become a team. You can see lights in their eyes when they see something happen."

*Max Davies, Engineer, Delco Electronics Corp.*

"Thank you for the 'gift' of U.S. FIRST competitions for our kids. You have already done more than you'll ever know to spark interest in science and technology among these students."

*Mike Barnes, Executive Vice President,  
Dallas Christian School*

"It will give me the hands-on experience needed for a possible career in engineering. It will also give us the chance to apply the physics that we learn in class to a real life problem."

*Tim Henson, Senior, Cortez High School*

"U.S. FIRST is a fascinating project and the kids really looked like they were having a blast! ... Congratulations on your continued success in bringing science and technology to kids in a non-threatening, exciting way."

*Annette Rivlin, "Real News for Kids," CNN*

"The one thing I enjoyed most of all was that everyone's opinion was important. ... I obtained something that no other school could offer me--experience in the field of engineering ... I also made new friends and a truce with my former enemies."

*Albert Mercado, student, Clinton High School*

"The time I spent on the U.S. FIRST team was the most exciting time of my life. I would like to thank all the engineers involved...You taught me what being an engineer is all about. You showed me the team effort involved in company projects and made the experience fun!"

*Jeff Ernst, Walnut Hills High School*