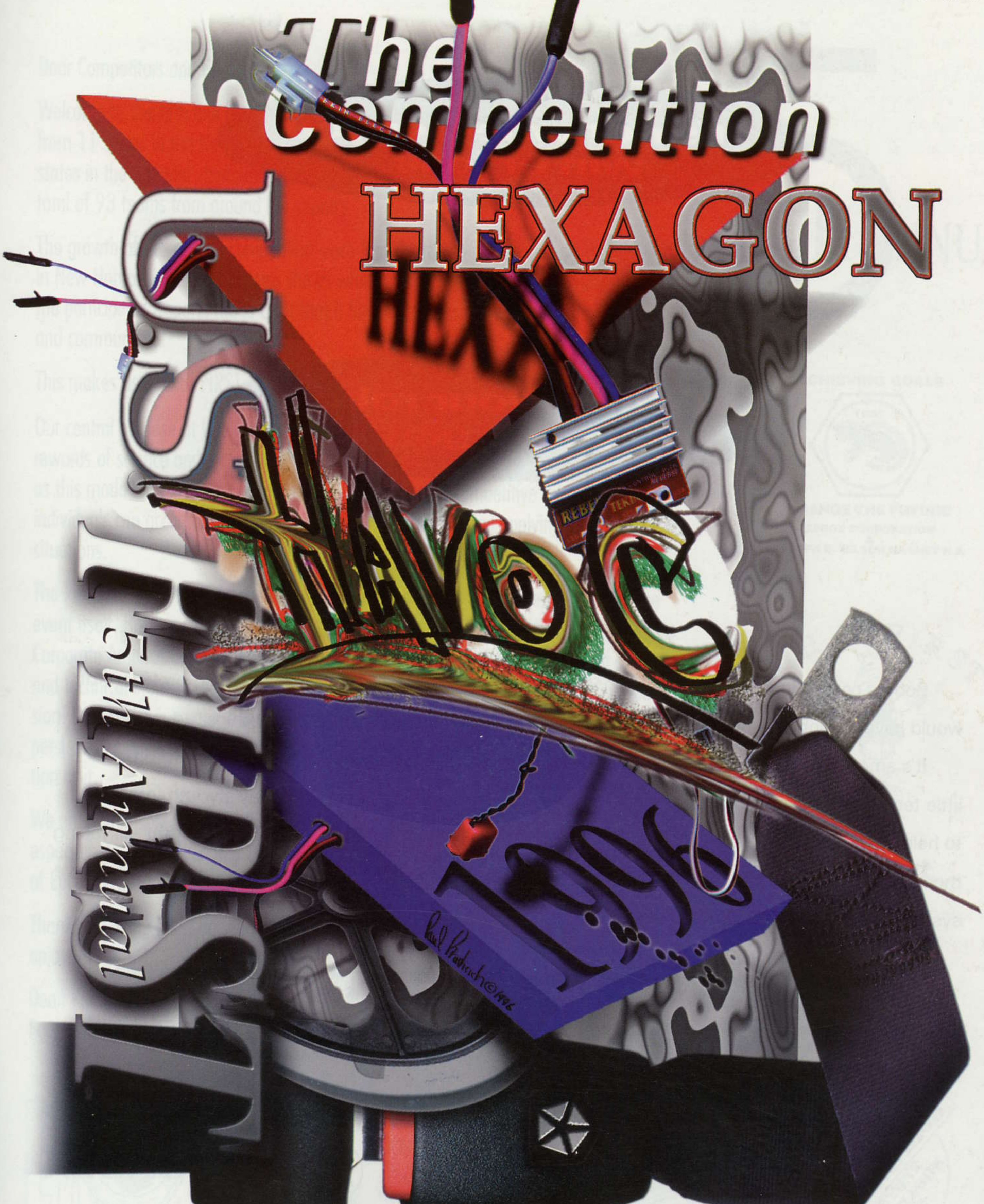
NATIONAL CHAMPIONSHIP



Honeywell Procter&Gamble MOTOROLA

5th ANNUAL

Dear Competitors and Guests:

Welcome to the fifth and by far the biggest U.S. FIRST Competition — 47 teams from 11 states in the New England Tournament, and over 70 teams from 22 states in the national championship at Disney World's Epcot Center, for a record total of 93 teams from around the country.

The growth of this annual competition since President Bush helped kick off the first in New Hampshire four years ago shows what a responsive chord it has struck. And the participants' reports make clear that it has had a powerful impact on their lives and communities.

This makes us at U.S. FIRST very proud.

Our central purpose at U.S. FIRST is to waken the next generation to the excitement and rewards of science and technology. One of the ways we do so is by presenting science as this made-for-television sporting event, harnessing the competitive spirit to show what individuals can accomplish by mastering the laws of nature and applying them to real-life situations.

The kids, the engineers and the teachers who make up the teams are the heart of the event itself. But our corporate participants are ultimately the key to U.S. FIRST's success. Corporate America knows that it has a vital stake in raising the nation's level of scientific and technical literacy; and because its members live by sales they also live by persuasion. U.S. FIRST is a vehicle through which the private sector's unmatched powers of persuasion can be channeled into creating demand for scientific learning and appreciation of it.

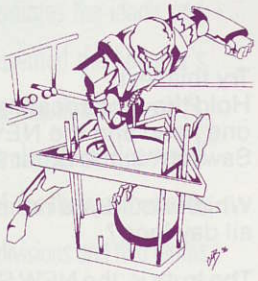
We are immensely grateful to our corporate sponsors for making this event possible, and especially to the Walt Disney Company for once again bringing it to the wondrous world of Epcot Center.

Thanks for being here, and thanks for your support. Now go out, play, cheer — and enjoy.

Dean Kamen
Founder, U.S. FIRST

ACHIEVING GOALS
THAT
CHANGE THE FUTURE
XEROX CORPORATION
&
JOSEPH C. WILSON MAGNET H.S.

KHS FIRST '96



BOEING LINDBERGH

Massachusetts Academy
WPI
The Phoenix

ALBANY
RIVER RATS
©1993 McKINLEY GRIFFEN

TOGETHER
E-SYSTEMS
GREENVILLE HIGH
EVERYONE ACCOMPLISHES MORE

QUOTES

To All the Competing Teams for the 1996 U.S. FIRST Competition:

Congratulations on choosing to participate in this very special competition. You all now have first hand experience at how exciting technology and engineering can be and I hope you decide to carry on with your interest in this very important field. All of this year's designs are excellent and reflect the hard work and enthusiasm of each of our teams. You should all be proud of your contribution to your team's effort. Now it's time to have some fun. Enjoy the competition and good luck!

Paul A. Allaire
Chairman, U.S. FIRST
Chairman & CEO, Xerox Corp.

"Our success as a nation requires bold, persistent, scientific experimentation, and all of you are part of this event can be proud of your involvement in this important endeavor. I salute you for your dedication to excellence and your commitment to the ideals of friendly competition. You are demonstrating the simple lesson that science is fun, and that it has the potential to help our nation tomorrow in ways that we are just beginning to imagine today."

President Bill Clinton
March 30, 1995

"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 in the same way. And he's absolutely right about that."

President George Bush
June 23, 1992

"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."

Dr. Roland Schmitt
President Emeritus, R.P.I.

JUDGES AWARDS

The U.S. FIRST Competition list of winners includes the following awards presented by the Judges:

Honeywell Leadership In Control Award

Awarded to the team displaying the most innovative control system or application of control components to provide unique machine functions.

Procter & Gamble Creativity Award

Awarded to the team displaying the most creative design, use of a component or the most creative or unique strategy of play.

Motorola Quality Award

Awarded to the team displaying the most robust design, that is, the project that best exhibits the relationship between quality of design, quality of construction and quality of performance.

Autodesk Award for Excellence in Engineering Creativity and Communication

Awarded to the team who clearly and creatively presents design solutions for the 1996 Competition through computer modeling and animation using the software provided by Autodesk.

Best Play of the Day

Best Sportsmanship

Number One Seed

Best Team Spirit

Outstanding Defense

Best Offensive Round

Most Photogenic

Rookie All-Star

	Chairman's Award Winner	National Champions
1995	Lockheed Sanders Nashua High School Nashua NH	Raychem Corporation Woodside High School Menlo Park CA
1994	Xerox Corporation Wilson Magnet School Rochester NY	Procter & Gamble Walnut Hills High School Cincinnati OH
1993	AT&T Bell Labs Science High School Newark NJ	E-Systems, Inc. Dallas Christian High School Mesquite TX
1992	Xerox Corporation Wilson Magnet School Rochester NY	NYPRO, Inc. Clinton High School Clinton MA

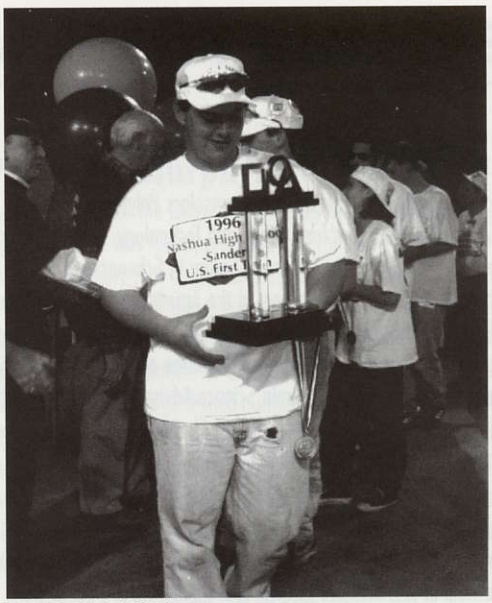


PHOTO: JAY L. HEATH

Chairman's Award

The Chairman's Award is presented to the team which achieves excellence by working well together. Judging criteria include the level of student participation, teamwork, team spirit, creativity of effort and overall cooperation and effectiveness between school and partner. The judging panel reviews materials submitted by teams prior to the National Championship. Documentation may consist of video footage, photos, and written chronicles. The traveling trophy for this prestigious honor is a high-tech, custom crafted Dean Kamen clock, which the New York Times called "Art that Ticks."

Founder's Award

The Founder's Award is presented by Dean Kamen to the organization or individual that best promotes the ideals and goals of U.S. FIRST. Motorola was presented the Founder's Award in 1993 for its outstanding contribution to the U.S. FIRST Competition, a custom built control system. Honeywell received the Founder's Award in 1994 for their enthusiastic team recruitment with three Honeywell divisions and two teams from Alliant Techsystems. In 1995, the Founder's Award was presented to Walt Disney World's EPCOT Center, the National Championship Event Host, for their ability and commitment to use their position and expertise as a giant in the entertainment industry to help U.S. FIRST achieve its goal of popularizing science and technology.

U.S. FIRST
Founder
Dean Kamen

Dean Kamen is President and owner of DEKA Research & Development Corporation, a New Hampshire based company specializing in advanced technologies in medical equipment. He is chairman and owner of Teletrol Systems, Inc., a manufacturer of electronic climate control systems for commercial and industrial buildings. A physicist, engineer and inventor, he holds more than 30 U.S. patents. In 1976, while an undergraduate at Worcester Polytechnic Institute, he founded Auto Syringe, Inc., to produce the world's first wearable infusion pumps.

In 1988, Dean was named Entrepreneur of the Year by the New Hampshire High Technology Council, and in 1992 received an honorary doctorate in science from Worcester Polytechnic Institute. In 1994, he was named Design News Magazine's Engineer of the Year and was honored as a 1994 Kilby Award laureate. In 1995 he earned the Hoover Medal for "innovative and imaginative leadership in awakening America to the excitement of technology and its surpassing importance in bettering the lot of mankind," as stated by the American Society of Mechanical Engineers.

Dean is a Fellow with the American Institute for Medical and Biological Engineering (AIMBE), and a member of the Engineering Society for Advanced Mobility: Land, Sea, Air and Space (SAE); the American Society of Mechanical Engineers (ASME); and the Society of Plastics Engineers (SPE).

U.S. FIRST
Advisor
Woodie Flowers

Woodie Flowers is the Pappalardo Professor of Mechanical Engineering at the Massachusetts Institute of Technology. He has held the School of Engineering Professor of Teaching Innovation Chair since 1991, and is Director of M.I.T.'s New Products Program. He received his S.M., M.E. and Ph.D. degrees from M.I.T. His current research includes work on micro-computer-controlled artificial legs, the creative design process and computer-aided design systems. Teaching engineering design is a major part of his career.

Dr. Flowers has started several new design courses including one of the most famous courses at M.I.T., "Introduction to Design (2.70)." For his teaching he has received The Goodwin Medal, The Baker Award, The Den Hartog Distinguished Educator Award and the MacVicar Faculty Fellow for extraordinary contributions to undergraduate education from M.I.T. He also received the Western Electric Award from The American Society of Engineering Education.

He is currently a member of the board of directors of The General Scanning Corporation, an Overseer for Boston's Museum of Fine Arts, and a national advisor to U.S. FIRST, and recently he was elected to the National Academy of Engineering.

3-DIMENSIONAL SERVICES
WITHIN OUR GRASP
BRANDON HIGH SCHOOL

AVONDALE CHRYSLER
U.S. FIRST

1996 ROBOT REVOLUTION
PLYMOUTH NORTH HIGH SCHOOL
BOSTON EDISON

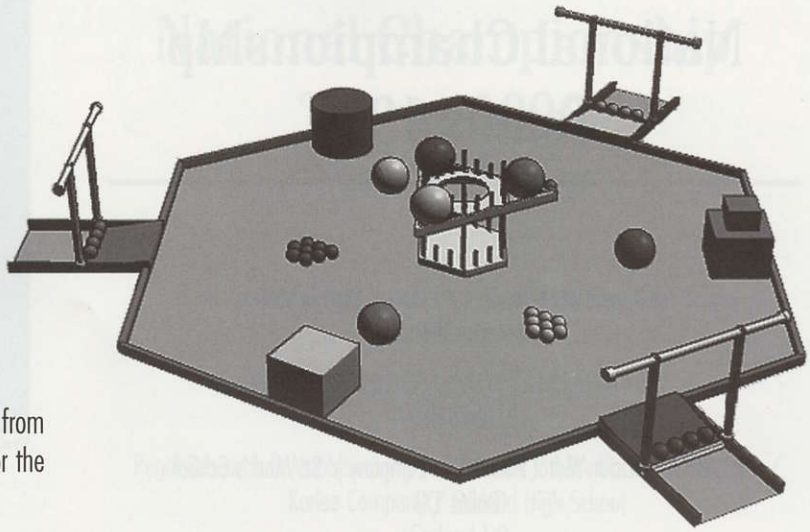
Baxter & Johnsburg
BIOHAWK
"PARTNERS IN TECHNOLOGY"

THE FOAMIN' BULLDAWGS
DART
MASON HIGH SCHOOL
DART CONTAINER CORP.

WASHBURN
ALLIANT TECHSYSTEMS
MILLERS

THE DERRYFIELD SCHOOL DS 1964
CODEM SYSTEMS INC SHIST
Codem CyberCats

HEXAGON HAVOC



Since February 10, more than 90 schools and engineering companies from over 20 states have been building "robo-gladiators" in preparation for the 1996 U.S. FIRST Competition, HEXAGON HAVOC.

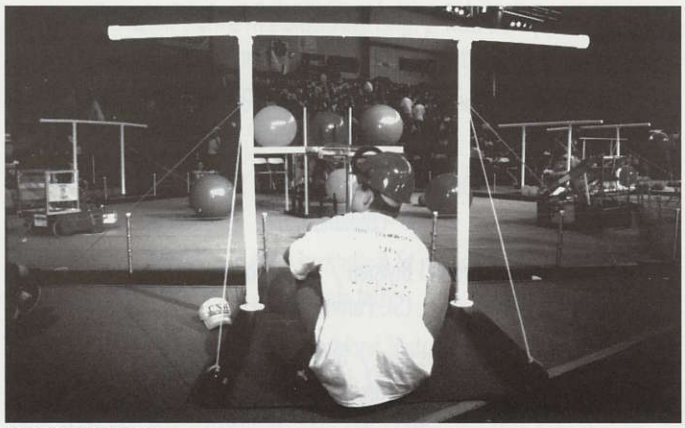


PHOTO: NEIL TAITEL

SCORING POINTS

In two minute matches, the three robots, with their human partners, score points by placing the balls in the central goal. The balls may be carried, pushed or thrown into the goal by the robots. The human players are not allowed on the playing field as they are seat-belted down at their stations, but they may score points by throwing ball(s) into the central goal.

Points are awarded for balls located in the central goal at the conclusion of each two minute match. Each small ball in or above the hexagonal portion of the central goal is worth three (3) points. Each large ball located in or above the hexagonal portion of the central goal is worth ten (10) points. Each large ball on or over the triangular corners of the goal will be worth five (5) points.

The winner of each match is the team with the highest score. In the case of a tie, the large ball closest to the center of the field breaks the tie.

The PLAYING FIELD

The playing field is a carpeted, hexagon-shaped area with a central goal. Around the perimeter of the field are three stations for human players, who will work with the remote controlled robots on the field to score points. There are 12 8" diameter balls and two 24" diameter balls per team, color coded to identify team ownership. At the start of each match, all of the small balls and three of the large balls are on the playing field, while the other three large balls are situated on the triangular corners of the goal.

The ROBOTS

The robots have been designed and built by the school/engineering teams during the past seven weeks and are constructed from a wide range of materials including PVC pipe, aluminum, plywood, fiberglass, and structural foam. Each may weigh no more than 120 pounds (including batteries) and must fit, unconstrained, inside a 36" cube.

The robots use two 12 volt Milwaukee drill motors, four Delco car seat motors, and two Textron pneumatic pumps which, through a customized remote control system, are powered by two 12 volt Milwaukee Drill batteries.

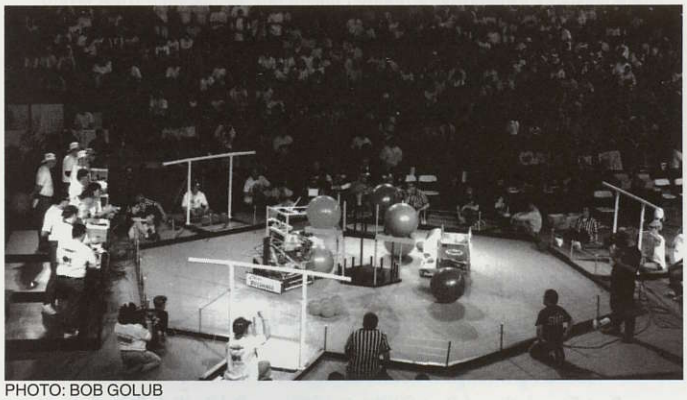


PHOTO: BOB GOLUB

National Championship Teams 1996

PHOTO: BARBARA BICKFORD

3-Dimensional Services / Brandon High School
(Rochester Hills MI)

Aavid Thermal Technologies / Gilford High School
(Gilford NH)

A.C. Horn Precision Metal Fabrication Company / St. Mark's School
(Dallas TX)

Alliant Techsystems, Inc. / Kamiak High School
(Mukilteo WA)

Alliant Techsystems, Inc. / Washburn Senior High School
(Hopkins MN)

Applied Materials / Palo Alto Senior High School
(Santa Clara CA)

Baxter Healthcare Corporation / Johnsburg High School
(Round Lake IL)

Baxter Healthcare Corporation / Mountain Home High School
(Mountain Home AR)

Beatty Machine and Manufacturing / Clark High School /
Gavit High School / Hammond High School / Morton High School
(Hammond IN)

Bell Helicopter / Rainwater Foundation / Automation & Robotics Research
Institute / The University of Texas at Arlington – Engineering Division /
Bluebonnet Applied Learning Academy
(Fort Worth TX)

Boeing Commercial Airplane Group / Lindbergh High School
(Seattle WA)

Boston Edison Company / Plymouth North High School
(Plymouth MA)

Cabletron Systems / IBM Corporation / Edward H. Arnold Engineering
Scholarship / University of Miami College of Engineering / (MAST)
Maritime and Science Technology Academy / Coral Park Senior High School
(Miami FL)

Chrysler Corporation / Avondale High School
(Auburn Hills MI)

Codem Systems, Inc. / High Speed Technologies, Inc. / Derryfield School
(Hollis NH)

Daniel Webster College / Lockheed Martin Commercial /
Premier Industries / Highland Tool / Alvirne High School
(Hudson NH)

Dart Foundation / Dart Container / Mason Public High School
(Mason MI)

Delco Electronics Corporation / Kokomo High School
(Kokomo IN)

Delphi Energy & Engine Management /Rider High School /
Wichita Falls High School / Hirschi High School / Carrigan Center
(Wichita Falls TX)

Delphi Interior and Lighting / Pontiac Central High School
(Troy MI)

Drawform / Zeeland High School
(Zeeland MI)

E-Systems-ECI Division / Lakewood High School
(St. Petersburg FL)

E-Systems, Inc. / Greenville High School
(Greenville TX)

Emerson Electric / Cardinal Ritter Prepatory High School / Normandy High
School (St. Louis MO)

Ensign-Bickford Company / Peter Shapiro & Associates /
Simsbury High School
(Simsbury CT)

Ethicon, Inc. / Hillsborough High School (Somerville NJ)

Ferrofluidics / Conolly Crowns Laboratory / Merrimack High School
(Merrimack NH)

H.K. Smith Charitable Fund / Amu Pro, Inc. / Jacksonville Electric Authority /
Stanton College Preparatory School
(Jacksonville FL)

Hamilton Standard / Windsor Locks High School
(Windsor Locks CT)

Hamilton Standard Space Systems International / Enrico Fermi High School
(Enfield CT)

Harris Corporation / Rochester Institute of Technology /
Edison Technical School
(Rochester NY)

Haworth, Inc. / Holland High School
(Holland MI)

Honeywell Inc. / Cortez High School
(Phoenix AZ)

National Championship Teams 1996

Honeywell Inc. / North Community High School
(Minneapolis MN)

Honeywell's MICRO SWITCH Division / Freeport Senior High School
(Freeport IL)

Johnson & Johnston Associates, Inc. / Digital Equipment Corporation / Salem High School
(Salem NH)

Lockheed Fort Worth / Azle High School
(Fort Worth TX)

Lockheed Martin Manned Space Systems / University of New Orleans / Benjamin Franklin High School
(New Orleans LAv

Marathon Electric Manufacturing Corp. / Navi Dowty / Intercity State Bank / Auto Glass Specialists / Etco / M&I Bank & Associates, Inc. / D.C. Everest High School
(Wausau WI)

Massachusetts Institute of Technology / Cambridge Rindge Latin School
(Cambridge MA)

McDonnell Douglas Corp. / Mary Institute & St. Louis Country Day School
(St. Louis MO

Motorola, Inc. / Richland High School
(Fort Worth TX)

Motorola, Inc. / Rolling Meadows HS / Wheeling High School
(Schaumburg IL)

Motorola, RPG / Florida Atlantic University / Dillard High School
(Plantation FL)

NASA Headquarters/ University of Maryland Space Systems Laboratory / America OnLine / South Lakes High School
(Reston VA)

NASA Lewis Research Center / Cuyahoga Metropolitan Housing Authority / East Technical High School
(Cleveland OH)

NYPRO Inc. / Clinton High School
(Clinton MA)

Oscar Mayer / Sherman High School
(Sherman TX)

OSRAM Sylvania / Manchester Central High School
(Manchester NH)

Parker-Hannifin / Souhegan High School
(Hollis NH)

Prince Corporation / West Ottawa High School
(Holland MI)

Procter & Gamble Company / Walnut Hills High School
(Cincinnati OH)

Public Service of New Hampshire / Manchester West High School
(Manchester NH)

Raychem Corporation / Woodside High School
(Menlo Park CA)

Regal Research & Manufacturing Co. / Karlee / A&A Manufacturing, Inc. / Karlee Company / Garland High School
(Garland TX)

Rensselaer Polytechnic Institute / Shenendehowa High School
(Troy NY)

Sanders, A Lockheed Martin Company / Nashua High School
(Nashua NH)
1996 New England Tournament Winners

Semiconductor Research Corp. / Harding University High School
(Research Triangle Park NC)

Stanley Hardware / Stanley Manufacturing / Camm, Inc. / Automotive Controls Corp. / Canberra / Berlin High School
(New Britain CT)

Stratus Computer / Water Instrument Operations / Assabet Valley Regional Vocational High School
(Marlboro MA)

Structural Dynamics Research Corp. / Great Oaks / Live Oaks Campus
(Milford OH)

Texas Instruments / Austin Academy for Excellence
(Dallas TX)

Texas Instruments / Gunter High School
(Dallas TX)

Textron Automotive Company / Cass Technical High School
(Troy MI)

University of Idaho / Moscow High School / Moscow Junior High School
(Moscow ID)

University of Wisconsin - Platteville / Platteville High School
(Platteville WI)

Washington State University / Schweitzer Engineering Labs, Inc. / Pullman High School
(Pullman WA)

Worcester Polytechnic Institute / Mass Academy of Math & Science
(Worcester MA)

Xerox Corporation / Joseph C. Wilson Magnet High School
(Webster NY)

Chrysler Corporation (Auburn Hills MI)
Avondale High School (Auburn Hills MI)
Turbo Chucker

Fifteen students, five teachers and 28 engineers comprise The Turbo Chuckers, the inaugural U.S. FIRST team for the Chrysler Corporation and Avondale High School. The 15 students were chosen from a faculty selected group of forty. Before the Manchester Kick-Off meeting in February, rapport and synergy were developed by discussing rules from previous year's contests and conducting a Process Thinking class (for the entire team) taught by training experts from Chrysler. Early meetings with parents and tours of the Tech Center also helped building team spirit and a winning attitude. Since the Kick-Off, the Turbo Chuckers followed the process developed by the team (at the Process Thinking class) which included problem definition, brainstorming sessions, goal setting, and building the field. The team split into development groups for each of the sub-systems on the robot. The machine was developed to scoop balls, store balls (with the help of the human player), score in both the upper and lower portion of the goal, and score both the small and large balls. In short, the goal for the design was to be as flexible as possible.

Codem Systems, Inc. (Hollis NH)
High Speed Technologies, Inc. (Candia NH)
The Derryfield School (Manchester NH)
Codem CyberCats

The Derryfield School is back in force after a one year lay-off. Although we are a small group, comprised of 11 students, 2 teachers, and 4 engineers, we have sophisticated ideas and grandiose expectations. The team is very much a family; even our companies have parent connections to the school. This team has been together since September in the engineering and design class. Our engineers have been actively involved. They have presented seminars on such topics as ethics, team building, design, and manufacturing techniques. Individual teams for the main components of the robot have discovered new equations through practical applications. Sophisticated computer graphics assisted in the design of our logo, and even the local pig farm is helping in our fund-raiser "kiss the pig contest." With such activity, whatever the outcome, every participant will have given it his or her best shot.

Daniel Webster College (Nashua NH)
Lockheed Martin Commercial (Hudson NH)
Premier Industries (Hudson NH)
Highland Tool
Alvirne High School (Hudson NH)
Alvirne P.L.A.D.

Our team consists of 30 high school students, ten teachers, six engineers, four college students and their professor of engineering. Our team has strong leadership from several upperclassmen and high interest on the parts of the 9th and 10th graders, the future of our team. Each individual has several roles to play as a member of various design and/or support groups. We are organized under an Oversight Committee into design groups: drive systems, small - ball pick-up system and arm system, support groups including welding, machine shop, travel, accounting, and fundraising. We conducted a summer session at night for students interested in mechanical design, and began our meetings in September. Our fundraising effort has been superior with a budget of $33,000 projected for the team. We are entering this Competition with great enthusiasm and look forward to renewing old rivalries and gaining new experience and ideas from our fellow competitors.

Dart Foundation / Dart Container Corporation (Mason MI)
Mason High School (Mason MI)
Dart Vader

Dart Vader returns again this year with a renewed excitement. Our team, comprised of volunteer Dart employees, Mason High School students and faculty, began meeting in early December with an initial focus on team building exercises and fundraising. Shortly after the Kick-Off workshop, the team broke into three design groups. The drive team was responsible for the robot's chassis and drive systems. The scoring team developed both the method for picking up balls and putting them into the goal. Both of the design teams were supported by an electrical team whose task was to prepare all of the controls for testing and competition. As the development of the robot progressed, volunteers from all areas helped to put together the Chairman's Award presentation and organize fundraising efforts. The largest contribution towards our fundraising came from two indoor car washes that were held while the temperature outside was well below freezing. Through our group effort and team spirit, we hope to pose a challenge for those teams that compete with us.

Delco Electronics Corporation (Kokomo IN)
Kokomo High School (Kokomo IN)
KHS First

In this fifth year for U.S. FIRST, we enjoy our fifth year of challenge and excitement. With a core team of 12 engineers, 8 teachers, and 25 students, the buzz word for this year's KHS First team is "Expansion." We held our second annual Pop Can Regatta in early October, this time inviting other schools to join us. Two schools accepted our challenge to build a pop can vessel to support a person who collected balls from the surface of a pool. In January, we joined with students from Pontiac Central High School in Troy, MI, for a one-day Team Tune-Up Tournament. A small-scale model of the U.S. FIRST Competition, the tournament brought students together and gave them a problem, a kit, and four hours to ready themselves for competition. We also helped recruit two new teams for U.S. FIRST itself: Hammond Schools in northern Indiana and Pontiac Central, working with Delphi Interiors. It's been a busy year, and we are looking forward to being a part of the climax: this year's Competition. Good luck to all!

Delphi Energy and Engine Management (Wichita Falls TX)
Rider High School (Wichita Falls TX)
Wichita Falls High School (Wichita Falls TX)
Hirschi High School (Wichita Falls TX)
Carrigan Center (Wichita Falls TX)

We, as a team, have discovered the true meaning of cooperation through the process of building our machine. As each of the 27 students and 15 engineers walked into a world of machine parts, ideas and questions, we all knew that this experience would be a unique one. The students participated from all three high schools of Wichita Falls, and the engineers came from various corporations. We collaborated many ideas into one massive machine design, and then divided into groups to keep ourselves organized. The construction group was in charge of building the sample playing field and the robot, while the rules and strategy group made sure they didn't break any of the rules. Other groups, such as budget, travel, and T-shirt design were also a large part of our team. We had to hurdle many problems in the building of the machine, but we came together and solved each one with success. We are very proud of our team and have come to Epcot to show everyone what it takes to win!

New England Tournament Teams 1996

3-Dimensional Services / Brandon High School (Rochester Hills MI)

Aavid Thermal Technologies / Gilford High School (Gilford NH)
BEST USE OF A HUMAN PLAYER

Bath Iron Works / Wright Pierce Engineers / Bath Regional Vocational Center / Morse High School (Bath ME)

Boston Edison Company (Pilgrim Nuclear Station) / Plymouth North High School (Plymouth MA)
BEST PLAY OF THE DAY

Codem Systems, Inc. / High Speed Technologies, Inc. / Derryfield School (Hollis NH)

Daniel Webster College / Lockheed Martin Commercial / Premier Industries / Highland Tool / Alvirne High School (Hudson NH)

Delphi Interior and Lighting / Pontiac Central High School (Troy MI)
ROOKIE ALL STAR

E-Systems-ECI Division / Lakewood High School (St. Petersburg FL)

Ferrofluidics / Connolly Crowns Laboratory / Merrimack High School (Merrimack NH)

Foster Miller Corporation / Blackstone Valley Regional Vocational Technical High School (Upton MA)

General Electric / Gems Sensors Division / Northeast Utilities / IMO Industries / Elizabeth H. Norton Trust Fund / Plainville Board of Education / Middle School of Plainville (Plainville CT)

Hadco Corporation / PolyVac, Inc. / Pinkerton Academy (Derry NH)

Hamilton Standard / Windsor Locks High School (Windsor Locks CT)

Hamilton Standard Space Systems Intl. / Enrico Fermi High School (Windsor Locks CT)

Harris Corporation / Rochester Institute of Technology / Edison Technical School (Rochester NY)

Honeywell Inc. / Cortez High School (Phoenix AZ)

International Fuel Cells / South Windsor High School (South Windsor CT)
BEST OFFENSIVE ROUND

Johnson & Johnson Professional, Inc. / Bridgewater-Raynham Regional High School (Raynham MA)
BEST SPORTSMANSHIP

Johnson & Johnston Associates, Inc. / Digital Equipment Corporation / Salem High School (Salem NH)

Eco Sales / Degraphics / Hertz Rent-A-Car / Pierson Middle & High School (Sag Harbor NY)

Light Machines Corporation / Memorial High School (Manchester NH)

Massachusetts Electric / New England Electric / Bay Path Regional Vocational Technical High School (Worcester MA)

Motorola, Inc. / Rolling Meadows High School / Wheeling High School (Schaumburg IL)

National Semiconductor / South Portland High School (South Portland ME)
ROOKIE ALL STAR

Naval Undersea Warfare Center / Middletown High School (Newport RI)
PROCTER & GAMBLE CREATIVITY AWARD

New Hampshire Ball Bearing / Laconia High School (Laconia NH)

Northeast Utilities / U.S. Coast Guard Academy / Montville High School / Williams School (Waterford CT)

NYNEX / Quincy Public Schools (Quincy MA)
SEMI-FINALIST BEST TEAM SPIRIT

NYPRO, Inc. / Clinton High School (Clinton MA)

O.S.D. / Alton High School (Alton NH)

OSRAM Sylvania, Inc. / Manchester Central High School (Manchester NH)
OUTSTANDING DEFENSE

OSRAM Sylvania, Inc. / Hillsboro Deering High School (Hillsboro NH)

Parker-Hannifin / Souhegan High School (Hollis NH)

Public Service of New Hampshire / Manchester West High School (Manchester NH)
FINALIST MOST PHOTOGENIC

Rensselaer Polytechnic Institute / Shenendehowa High School (Troy NY)
SEMI-FINALIST BEST STRATEGIC PLAY

Sanders, A Lockheed Martin Company / Nashua High School (Nashua NH)
NEW ENGLAND TOURNAMENT CHAMPIONS
NUMBER ONE SEED HONEYWELL LEADERSHIP IN CONTROL AWARD

SMC Pneumatics, Inc. / Ipswich High School (Topsfield MA)

Stanley Works / McGee Middle School (New Britain CT)

Stratus Computer / Water Instrument Operations / Assabet Valley Regional Vocational High School (Marlboro MA)
MOTOROLA QUALITY AWARD

Textron Systems Division / Wilmington High School (Wilmington MA)

United Technologies Research Center / East Hartford HS / Hartford Public HS / Rockville HS / Bloomfield HS / Weaver High School (East Hartford CT)

University of Massachusetts - Lowell / Tyngsboro Jr/Sr High School (Lowell MA)

UNUM / Corning Co-Star / Nichols Portland / Kennebunk HS / Gorham HS / Old Orchard Beach High School (Portland ME)

Visual Inspection Technologies, Inc. / Rutgers University / Somerset County Vocational / Technical School (Flanders NJ)

West Irondequoit High School (Rochester NY)
AGAINST ALL ODDS

Worcester Polytechnic Institute / Mass Academy of Math & Science (Worcester MA)

Xerox Corporation / Joseph C. Wilson Magnet High School (Webster NY)