



Boosting Engineering, Science & Technology™

## Middle and High School Robotics Competition



# 2008 ANNUAL REPORT

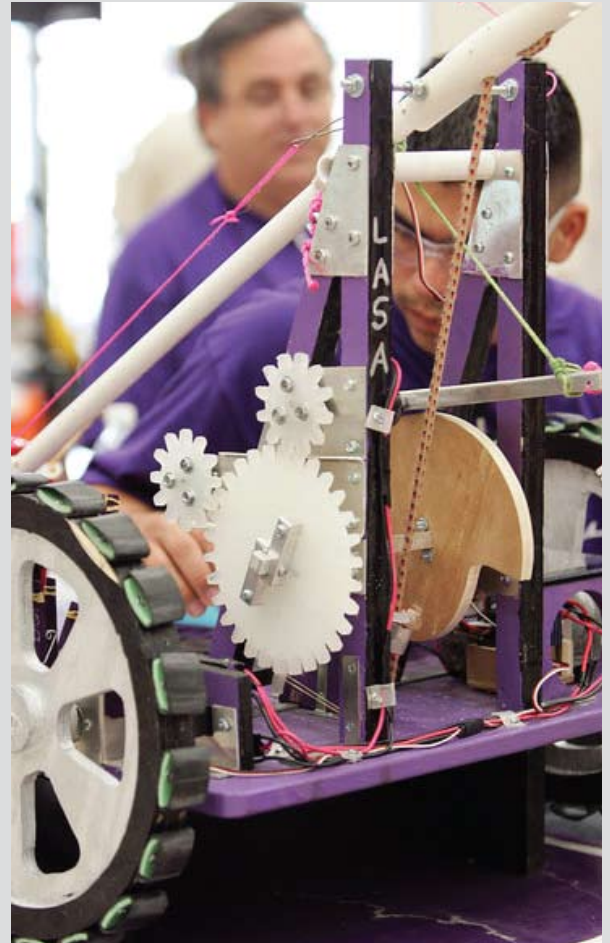
*Inspiring Future Generations of Engineers, Scientists, and Technology Experts Since 1993*

[www.bestinc.org](http://www.bestinc.org)



# Mission Statement

BEST is a non-profit, volunteer-based organization whose mission is to inspire students to pursue careers in engineering, science, technology, and math through participation in a sports-like, science- and engineering-based robotics competition.



## Our Principles

- Students are the primary participants and benefactors. BEST is an extracurricular academic experience that engages students through teamwork, self-directed learning, apprenticeship, and problem solving. Students perform all of the work. Team mentors—engineers and technical professionals from industry—serve as guides to shepherd students through the engineering design process.
- Schools participate at no cost. There are no entry fees or kit costs associated with the BEST competition. Schools must fund their travel costs, team tee shirts, and other team enhancements.
- BEST is an equal opportunity program. Any public, private, or home school may participate in BEST

## President's Letter

Another competition season has concluded and, again, BEST Robotics has positively impacted the lives—and futures—of thousands of middle and high school students from various communities around the U.S. This year over 10,000 students participated at over 600 schools.

I often wonder what it must have been like for Ted Mahler and Steve Marum, co-founders of BEST, when they started this humble program back in 1993. What they had planned as a local competition for schools in and around Sherman, Texas, has evolved over 17 years to what it is today—a non-profit, volunteer-driven organization, with 33 competition sites and three regional championships in 15 states.

Growing BEST has required an enormous amount of time, energy, and passion from thousands upon thousands of volunteers over the years. This phenomenal, grassroots, community based program continues to evolve in technology and in organization.

While we celebrate the accomplishments of 2008 and envision a bright future for BEST, we note that our greatest strengths are our volunteers and sponsors. We know that they stay involved because of their unwavering commitment to BEST students. While BEST grows, we cannot forget our basic tenets—student-designed, student-built, student-driven robots in a competition that is open to any school and all students at no cost. Most of all, we never forget why BEST was started: to inspire the next generation of engineers, scientists, technical experts, mathematicians, scholars, and inventors.



Janne Ackerman, President

BEST Board of Directors



## 2008 Game: “Just Plane Crazy”

Automation through the use of robots has been a manufacturing hallmark of the automotive industry for more than two decades. How can these techniques be applied to the aircraft industry to accelerate the assembly process and make it more efficient? BEST Robotics formed its own company, BEST Aircraft, to deliver the BEST way to assemble an aircraft using robots. Its four Divisions (Red, Blue, Green, and Yellow) will design and build robots that compete against each other to derive the most efficient manufacturing process applying Just In Time (JIT) Inventory and Lean Manufacturing techniques.



# Why do we do our BEST?

Why do we do this? Why do teachers, team mentors, and over 3000 BEST volunteers devote countless hours of their personal time to this program? What is it about BEST that is worth all this effort?



One answer can be seen in a small piece of the event that often goes unnoticed. In this tiny slice of time, a student's actions become a microcosm of the entire reason for BEST. It happens only in the frantic few minutes before a round of competition starts. Those final few seconds when all eyes are on them, the crowd noise is deafening, and the time pressure is mounting. It happens when that student makes the sudden realization that their robot is not working.

What happens then reflects everything that student has learned in BEST. In that pressure cooker environment, young students walk through a cognitive detective process worthy of any NASA mission controller. Without their adult mentors to help, under time pressure and under emotional strain, they encounter a remarkable 60-second life lesson.

Most push through. They do it because in the preceding six weeks of design, test, and redesign, they have learned a skill. They have learned how to break the problem barrier.

Breaking a problem barrier is the realization that a problem is not an endpoint, but only an answer not yet found. Being able to break the problem barrier divides students who can from those who can't. Each year BEST helps students push through that barrier.

Life is a set of problems to be encountered. A broken water heater, a flat tire, a tax form to fill out, a jammed manipulator arm on a robot driving on the surface of Mars, two nations on the brink of war—they all are problems. Once the problem barrier is broken, problems are replaced with process.

BEST changes mindsets. BEST places students in a situation that conditions their minds. It is a situation that flows from concept, to physical structure, and finally to operational use. Using robot design and competition, BEST presents an opportunity for students to break the problem barrier.

BEST appears first as an almost insurmountable problem and ends with the accomplishment of a solution; in the middle, a process. That process is the key. Somewhere in that process the problem barrier is broken and, in these young minds, the perception of a problem is changed.

Our workforce, our country, and our world needs these changed young minds. Young minds that understand problems are not endpoints, but undiscovered answers waiting for the correct process. That's why we do this. That's why we continue to do our BEST.

**Steve Marum and Ted Mahler**  
*Co-Founders*



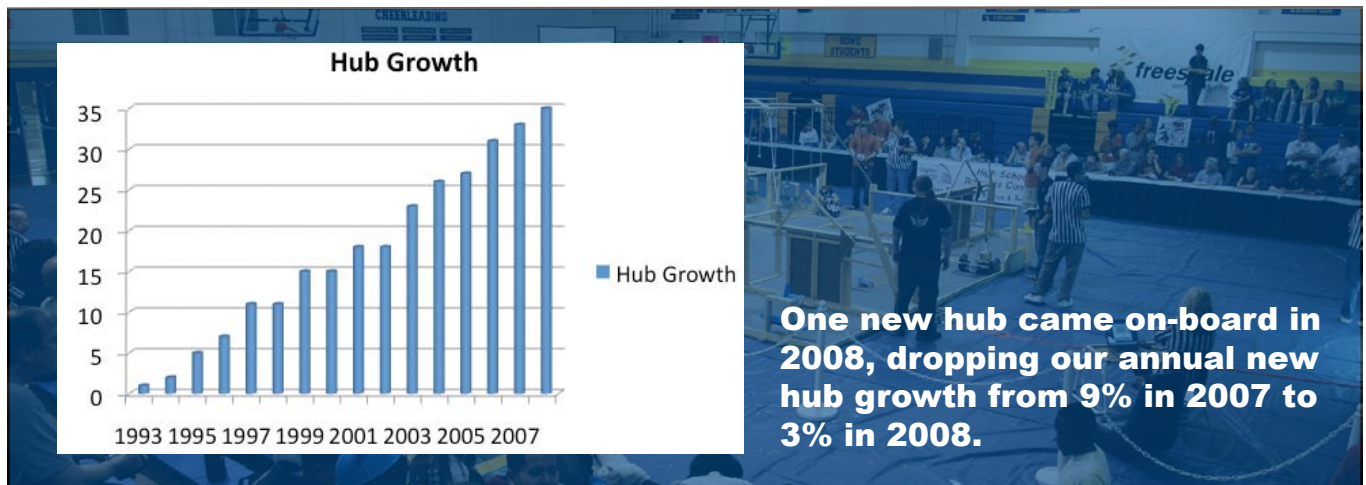
# Program Overview

- BEST originated in 1993 when Ted Mahler and Steve Marum, two engineers with Texas Instruments in Sherman, TX, started the program as a competition for rural schools in the area. The first competition was held with 14 schools and 221 students. In fall 2008, over 650 schools and 10,000 students participated.
- BEST is a 501(c)3, non-profit organization in 1998 and is headquartered in the Ginn College of Engineering at Auburn University (AL).
- BEST is a volunteer-driven organization, with over 3500 people serving as “hub” (local competition site) organizers, event personnel, team mentors, and competition judges.
- BEST licenses use of its program to groups that want to start the program in their communities. Any group—companies, school systems, two- or four-year colleges or universities, professional engineering society, or individuals—can start a hub. Funding for a hub must be raised by the local organizing group.



# Competition Overview

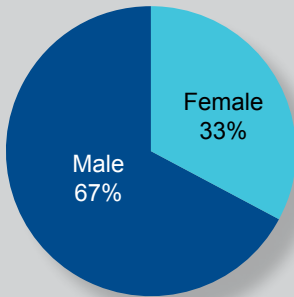
- The competition itself is comprised of two divisions, **Robotics** and the BEST Award. All teams compete in the Robotics division. The **BEST Award** competition is optional for participating schools.
- Robotics - Each team designs and builds a radio-controlled machine to accomplish defined tasks in a game-type format. Six weeks before the competition, the teams gather for Kick Off Day in early September at local hub sites where they receive identical kits of equipment (motors, r/c unit, batteries, etc.) and raw materials from which to build their machines, and a detailed set of game rules. The machines they build cannot weigh more than 24 pounds, must fit within a 24-inch cube, and must be built only from the raw materials supplied to them by the local hub.
- BEST Award teams are judged on the following: Project Engineering Notebook; Oral Presentation; Educational Display; Judges Interview; Spirit and Sportsmanship; and Robot Performance. Winning the BEST Award is considered the highest achievement any team in the competition can accomplish.





# 2008 Student Demographics

## Gender, All Participants

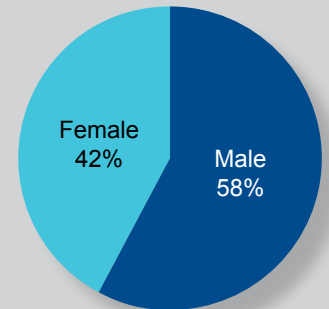
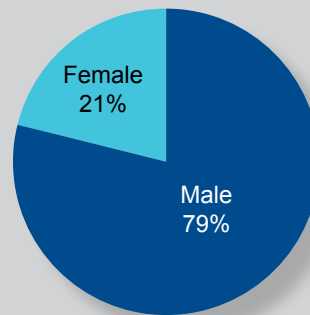


- This reflects ALL student participants (robot construction team and BEST Award team)
- We reported 31% female for 2007 and 32% in 2006.

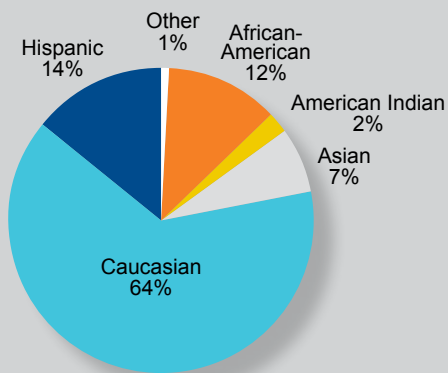
## Gender, Based On Participation

Robot Construction Team

BEST Award Team



## Race



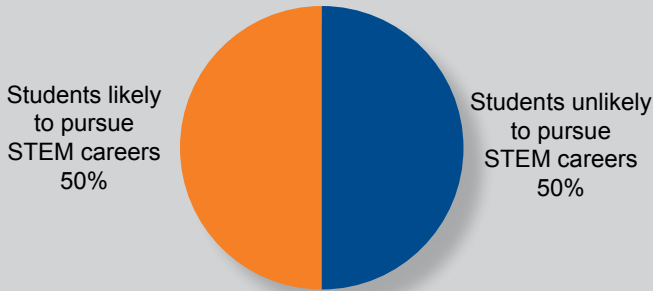
- Reporting race is an optional category for teams.

## As a result of participating in BEST, students...

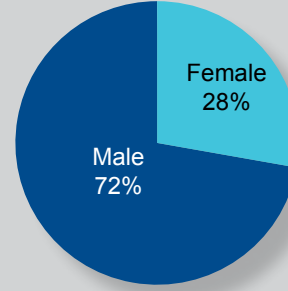
- Understand real-world use of mathematical concepts and applied physics
- Experience real-world science and engineering challenges, training that is transferable to all academic disciplines and career pursuits
- Understand what engineers do—engineering is “demystified”
- Experience “design-to-market” product development—experience that is transferable to all career pursuits
- Receive recognition and acclaim typically reserved for their peers in sports

# Likely To Pursue Science, Technology, Engineering Or Math Career (%)

## Responses of All Participants

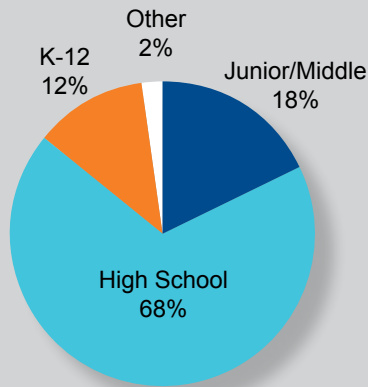


## Positive Responses, Gender-Based

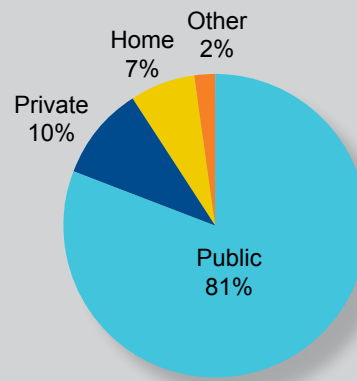


• Percentages based on 29 reporting hubs.

## School Grade Level



## Type Of School



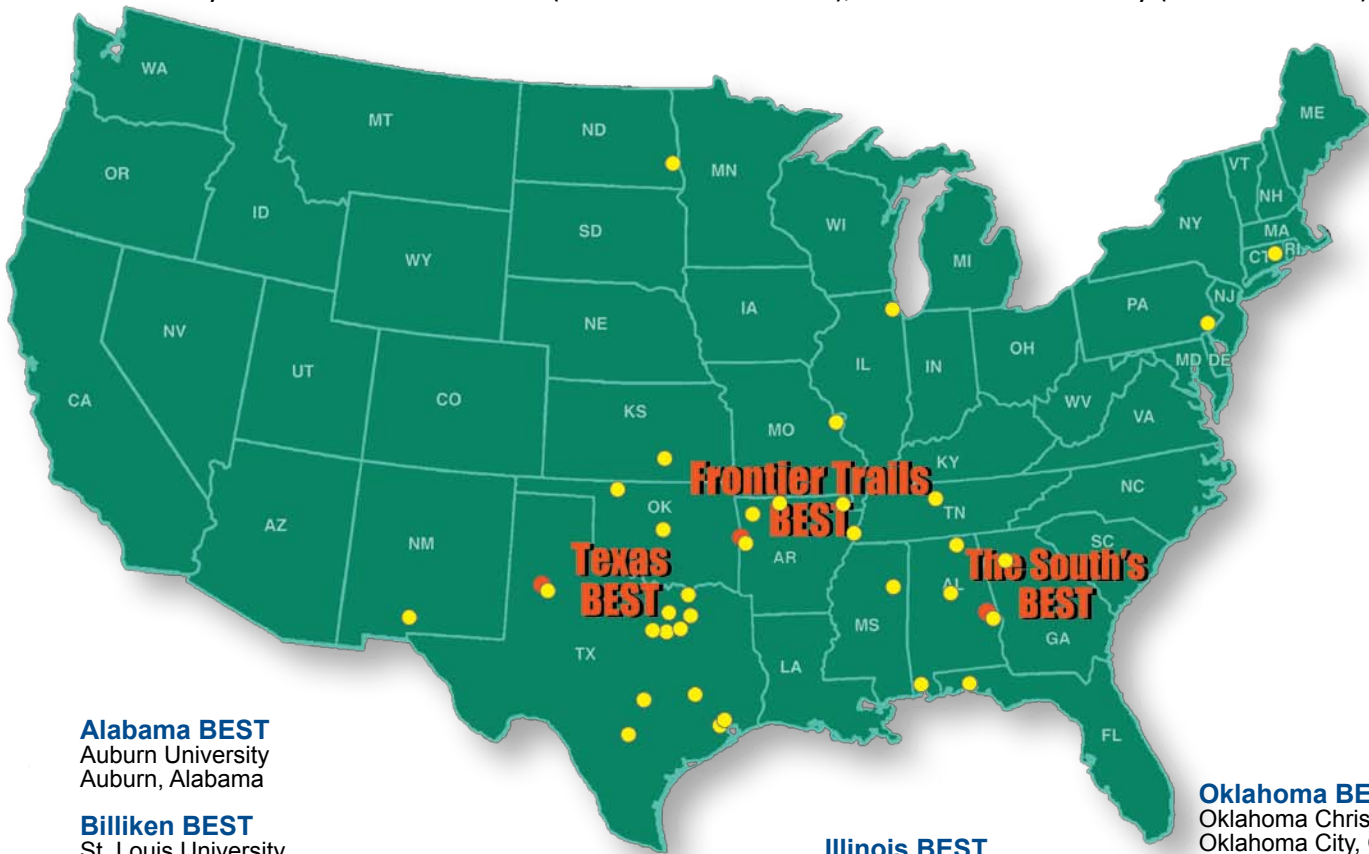
*Students become competent and confident in:*

- Abstract Thinking
- Decision-Making
- Problem-Solving
- Self-Directed Learning
- Teamwork
- Project Management
- Leadership



# 2008 Competition Sites (“Hubs”)

BEST licenses use of its program to organizations, corporations, groups of individuals, and both two-year and four-year institutions that wish to start and sustain a “hub” (local competition site). In 2008 BEST had 34 hubs operating in 15 states. Regional championships were held at the University of North Texas (“Texas BEST”), the University of Arkansas—Fort Smith (“Frontier Trails BEST”), and Auburn University (“South’s BEST”).



## Alabama BEST

Auburn University  
Auburn, Alabama

## Billiken BEST

St. Louis University  
St. Louis, Missouri

## Bison BEST

North Dakota State University  
Fargo, North Dakota

## Blazer BEST

University of Alabama  
Birmingham  
Birmingham, AL

## Brazos BEST

College Station, Texas

## Bulldog BEST

Mississippi State University  
Starkville, Mississippi

## Capitol BEST

Austin, Texas

## Coastal Bend BEST

Texas A&M University  
- Kingsville  
Kingsville, Texas

## Collin County BEST

McKinney, Texas

## Connecticut BEST

Central Connecticut  
State University  
New Britain, Connecticut

## Cowtown BEST

Lockheed Martin Aeronautics  
Fort Worth, Texas

## Crowley's Ridge BEST

Arkansas State University  
Jonesboro, Arkansas

## Dallas BEST

Dallas, Texas

## Denton County BEST

University of North Texas  
Denton, Texas

## Emerald Coast BEST

University of West Florida  
Pensacola, Florida

## Frontier Trails Championship

University of Arkansas - Fort Smith  
Fort Smith, Arkansas

## Georgia BEST

Southern Polytechnic  
State University  
Marietta, Georgia

## Heartland BEST

Northwestern Oklahoma  
State University  
Alva, Oklahoma

## Illinois BEST

Johnson Controls Inc.  
Chicago, Illinois

## Jubilee BEST

Mobile, Alabama

## Kansas BEST

Wichita State University  
Wichita, Kansas

## Mid-South BEST

Mid-South Community College  
West Memphis, Arkansas

## Music City BEST

Lipscomb University  
Nashville, Tennessee

## New Mexico BEST

New Mexico State University  
at Las Cruces  
Las Cruces, New Mexico

## North Houston BEST

Baker Hughes, Inc.  
North Houston, Texas

## North Texas BEST

Sherman, Texas

## Northark BEST

North Arkansas College  
Harrison, AR

## Oklahoma BEST

Oklahoma Christian University  
Oklahoma City, Oklahoma

## Philadelphia BEST

School District of Philadelphia  
Philadelphia, Pennsylvania

## River Valley BEST

University of Arkansas  
- Fort Smith  
Fort Smith, Arkansas

## San Antonio BEST

San Antonio, Texas

## South's BEST Championship

Auburn University  
Auburn, AL

## Space City BEST

Metro Houston, Texas

## Tennessee Valley BEST

Calhoun Community College  
Decatur, Alabama

## Texas BEST Championship

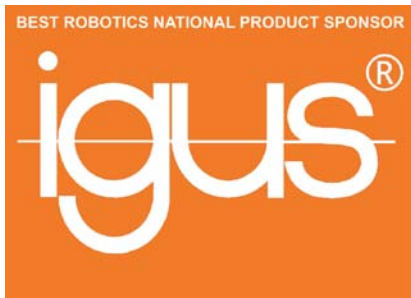
University of North Texas  
Denton, TX

## West Texas BEST

Texas Tech University  
Lubbock, Texas



# National Sponsors



igus, Inc. manufactures industry-leading plastic components for use on automated machinery. The company became our first national sponsor in 2006, donating various plastic machinery components to each BEST team each season. The company's generous donation of products enables the BEST experience to be more complex and challenging for the students. [www.igus.com/yesprogram](http://www.igus.com/yesprogram)



SolidWorks is one of the leading CAD software companies in the world and has been generously providing free software to every BEST team during the annual competition since 2006. As a result of our teams now having extensive experience with SolidWorks, BEST has introduced a CAD Design Award and incorporated CAD design into its Project Engineering Notebook competition component.

[www.solidworks.com](http://www.solidworks.com)



Alibre Inc., founded in 1997 and based in Richardson, Texas, became a national sponsor in 2008. Alibre provides BEST students with free "lifetime" CAD design software that can be downloaded to their home, laptop, and classroom computers.

[www.alibre.com](http://www.alibre.com)



SERVO Magazine, a new BEST sponsor in 2008, is dedicated to the "Next Generation of Robotics Experimenters" and devoted 100% to robots and robotics. T & L Productions, publisher of SERVO, provides free copies of its magazines to all BEST teams and offers BEST students reduced subscriptions at very affordable prices. SERVO is been a huge supporter of BEST and regularly promotes our program through ads and columns.

[www.servomagazine.com](http://www.servomagazine.com)

*"Participating in BEST served as a key factor in my decision to pursue an engineering degree in college. The hands-on nature of the work, the stimulating, creative challenge of the task, and the fun, team-based problem solving environment of the competition convinced me that engineering was my true calling. BEST Robotics helped make that choice clear."*

Travis McCarty, Field Service Engineer, National Instruments, Houston, TX

# 2008 Hub and Regional Sponsors

- Each BEST hub and regional must raise its own funds to run its competition through sponsorships.
- Sponsorship funds are used to purchase equipment and materials BEST teams use to construct and power their robots.
- Donations, whether in the form of cash or in-kind support, are tax-deductible.
- Sponsor recognition at BEST competitions varies based upon the amount of the gift.

| HUB                         | SPONSORS  |
|-----------------------------|---|
| <b>Alabama BEST</b>         | <p>Auburn University, College of Sciences and Mathematics<br/>                     Auburn University, Department of Electrical and Computer Engineering<br/>                     Auburn University, Samuel Ginn College of Engineering<br/>                     ABB Robotics<br/>                     Neptune Technology Group<br/>                     Brasfield &amp; Gorrie<br/>                     Southern Nuclear<br/>                     Alabama Power Foundation<br/>                     Southern Company Services<br/>                     Rheem Manufacturing<br/>                     Vice President for Outreach<br/>                     Auburn-Opelika Tourism<br/>                     Technical Training Aids<br/>                     Jacobs Technology Inc<br/>                     Briggs &amp; Stratton Foundation<br/>                     Honda Mfg. of Alabama<br/>                     State of Alabama<br/>                     The Pyramid Group/LBYD</p>  |
| <b>Billiken BEST</b>        | <p>Saint Louis University's Parks College of Engineering, Aviation and Technology</p>   |
| <b>Bison BEST</b>           | <p>Bobcat<br/>                     North Dakota Department of Career &amp; Technical Education<br/>                     North Dakota State University - College of Engineering<br/>                     Case IH<br/>                     FRS Industries<br/>                     Gabriel Metal Casting<br/>                     BTD Manufacturing<br/>                     Fargo Automation<br/>                     Greater Fargo-Moorhead Economic Development Corporation<br/>                     Integrity Windows and Doors<br/>                     Phoenix International – A John Deere Company<br/>                     SAE International<br/>                     Cloverdale Meats<br/>                     Brokerage Printing<br/>                     Goodrich<br/>                     State Bank &amp; Trust<br/>                     Stenerson Lumber<br/>                     Sure Sign<br/>                     Ulteig Engineers<br/>                     Vareberg Engineering<br/>                     West Acres Shopping Center</p> |
| <b>Blazer BEST</b>          | <p>UAB School of Engineering<br/>                     Valmont-Newmark<br/>                     Alabama Power Company<br/>                     Blazer Barnes &amp; Noble Bookstore<br/>                     Lowe's<br/>                     Packing Materials Supply (PMS)<br/>                     Snoozy's Bookstore</p>   |
| <b>Brazos BEST</b>          | <p>Capsher Technology<br/>                     Knowledge Based Systems, Inc. (KBSI)<br/>                     hp @ Research Park<br/>                     igus, Inc.</p>   |
| <b>Bulldog BEST</b>         | <p>Lynntech, Inc.<br/>                     Reynolds &amp; Reynolds<br/>                     Screened Images<br/>                     AgniTEK<br/>                     Brazos Industries<br/>                     Copy Corner<br/>                     C.C. Creations<br/>                     GKG.net</p>   |
| <b>Capitol BEST</b>         | <p>Mississippi State University, Bagley College of Engineering<br/>                     Freescale Semiconductor, Inc.<br/>                     Central Texas Technology &amp; Engineering Executive Council<br/>                     MakerFaire Austin<br/>                     Dell Computer<br/>                     Global Knowledge, Inc.<br/>                     Westlake High School<br/>                     Anderson High School<br/>                     Roger Beasley Volvo<br/>                     Tony Cacciola &amp; Family<br/>                     Kurt Shultz Photography<br/>                     ANVANA Web Hosting</p>   |
| <b>Colin County BEST</b>    | <p>Raytheon<br/>                     Cactus Awards<br/>                     Internet Texoma<br/>                     Lowe's<br/>                     Compass Bank<br/>                     J. Preston Automation<br/>                     Central Connecticut State University<br/>                     United Technologies Corp.<br/>                     Lowe's of Newington<br/>                     Lockheed Martin - Aeronautics Company<br/>                     Encore Wire<br/>                     TCU School of Engineering<br/>                     Ridgmar Mall<br/>                     Johnny Zaskoda<br/>                     Shelle's Treasures<br/>                     Six Flags Hurricane Harbor<br/>                     Chick-Fil-A at Ridgmar Mall</p>  |
| <b>Connecticut BEST</b>     | <p>The Kays Foundation<br/>                     Axiom Corporation<br/>                     ASU Department of Computer Science<br/>                     ASU Office of Academic Affairs and Research<br/>                     Barton's of Arkansas and Missouri<br/>                     Hytrol Conveyor Co., Inc.<br/>                     ASU College of Engineering<br/>                     ASU College of Sciences and Mathematics<br/>                     J. T. White Hardware &amp; Lumber<br/>                     The Mall at Turtle Creek</p>  |
| <b>Cowtown BEST</b>         | <p>Texas Instruments High Performance Analog<br/>                     Texas Instruments Mixed Signal Automotive<br/>                     Texas Instruments DLP<br/>                     Texas Instruments Wireless Terminal Business Unit<br/>                     Raytheon</p>   |
| <b>Crowley's Ridge BEST</b> | <p>Raytheon</p>   |
| <b>Dallas BEST</b>          | <p>Raytheon</p>   |

**Dallas BEST**

Photonics  
The T-System  
UTD Engineering

**Denton County BEST**

JAMES WOOD  
Nucon Steel  
Southern Stretch Forming  
XTO Energy  
Labinal  
Tom Fitzmaurice  
Oscar Garcia  
George & Eugenia Mitchell  
Hugh & Ann Simmons  
A. H. Belo  
Bell Helicopter  
C & G Electric  
Mr. & Mrs Thomas Babb  
First State Bank, Chico, TX  
Pioneer Natural Resources  
J. & M Street, Inc.  
Sandra & William Craig  
UNT College of Engineering  
Texas BEST  
Laurence McClendon  
Bill Stamm

**Emerald Coast BEST**

University of West Fl. Foundation  
Gulf Power Co.  
AT&T  
Marianna Airmotive  
UWF Alumni Association  
Armstrong World Industries  
Institute for Human and Machine Cognition  
SERF  
Bill Weber

**Georgia BEST**

Siemens Energy and Automation  
Higginbotham and Associates  
Technical Laboratory Associates  
Mechatronics Engineering, Southern Polytechnic State University  
Electrical & Computer Engineering Technology, Southern Polytechnic State University

**Heartland BEST**

ConocoPhillips  
Charles Morton Share Trust  
Cargill Salt, Inc.  
Alfa Electric  
Alva Tourism and Convention Board  
State Farm Insurance, Alva  
Central National Bank of Alva  
Community Bank of Alva  
Northwestern Oklahoma State University

**Illinois BEST****Jubilee BEST**

Johnson Controls, Inc.  
The Forum  
Alabama Power Foundation  
J.L. Bedsole Foundation  
Evonik Degussa Corporation  
Aztec Maritime Services, Inc.  
Gulf Coast Exploreum Science Center  
Ciba Specialty Chemicals  
Technip Corporation  
Hargrove and Associates  
Airbus North America Engineering  
AT&T  
Dorsett Productions  
Radiance Technologies  
System Scale Corporation

**Kansas BEST**

U.S. Coast Guard  
Davidson High School EPIC Program  
BakerBytes  
Alltel  
Creative Catering  
Cessna Aircraft Company  
Hawker Beechcraft Corporation  
LSI Corporation  
The Boeing Company  
Spirit Aerosystems  
Bombardier Learjet  
Cargill  
Great Plains Ventures  
Rockwell Collins  
AIAA- Wichita Section  
Wichita State University  
Servo  
Solidworks  
igus, Inc.

**Mid-South BEST**

Alibre  
CIBA Corporation  
Langston Companies Inc.  
Mid-South Community College  
Lipscomb University, Raymond B. Jones School of Engineering  
Nissan

**Music City BEST**

Tusculum Ace  
Intel Corporation  
NM Space Grant  
Northrop Grumman  
Jacobs Technology Inc  
Raytheon  
Calculux

**New Mexico BEST****New Mexico BEST**

Klipsch School of ECE  
NMSU College of Engineering  
Dona Ana Community College

**North Houston BEST**

Baker Hughes Inc.  
Conroe Independent School District  
Hughes Christensen  
FMC Technologies  
GJ Snyder

**Northark BEST**

Pastusek and Associates  
Lone Star College System  
North Arkansas College  
Mountain Home Science and Technology Group  
North Arkansas College Foundation  
Ed and Lisa Proctor  
Fashion Center Mall  
Flexsteel Industries Wood Products Division  
Home Depot Harrison AR  
Johnson Manufacturing Co.  
Lowe's Hollister Mo.

**Northwest Arkansas BEST**

University of Arkansas C-SPIN Program  
Fastenal Company of Northwest Arkansas  
Keyport Self Storage  
Machine Concepts - Pea Ridge  
Northwest Arkansas Mall  
Northwest Technical Institute  
University of Arkansas College of Engineering  
Arkansas Electrical Cooperatives  
Davis & Zega, PC  
Green-Anderson Engineers  
Lowe's Home Improvement Center  
Ozarks Electrical Cooperative



Southwestern Electric Power Company  
Tyson Foods  
Upchurch Electrical Supply  
Ryder Truck Company of Lowell  
Society of Manufacturing Engineers - Beaver Chapter  
Texas Instruments

**North Texas BEST**

**Oklahoma BEST**

Midway Mall  
Conoco Phillips  
Lyle Harms  
Don Noles  
Oklahoma Christian University  
Walter Beam  
JTS Engineering  
Lowe's  
Mazzio's Pizza  
OG&E  
The Engineering Club of OKC  
Tinker Airforce Base  
Tom Hoke

**Philadelphia BEST**

College, Career & Technical Education Division-SDOP  
Villanova University's College of Engineering  
NASA's Pennsylvania Space Grant Consortium  
U.S. Navy League  
IBM  
igus

**River Valley BEST**

SolidWorks  
National Society of Black Engineers  
Society of Manufacturing Engineers  
University of Arkansas - Fort Smith

ABF U-Pack Moving  
Gerdau MacSteel  
Control Technologies, Inc.  
Custom Awards and Engraving  
Lowe's of Fort Smith  
Lumber One  
Rheem Manufacturing  
Peterson Chemicals, Inc.  
Shamrock Bolt & Screw  
Spray-Rite, Inc.  
Weldon, Williams & Lick  
Baldor Electric Company  
Central Mall - Fort Smith  
Charlotte Pipe & Foundary  
Davis Iron & Metal, Inc.  
Golden Corral  
Hiram Walker & Sons, Inc.  
J&B Supply Company  
Whirlpool Corporation  
Williams-Crawford & Associates

**San Antonio BEST**

188th Fighter Wing  
Champion Cycling  
St Mary's University  
Cogburn Family Foundation  
NuStar Energy Foundation  
Cutshall Consulting  
Valero Energy Foundation  
Southwest Research Institute  
Clarke American  
DRB Aviation Consultants  
Security Service Federal Credit Union  
Zachry Construction  
ACE Technologies, Inc.  
Frost Bank  
IEEE, Central Texas Section

C. H. Guenther & Son, Inc  
Sports Unlimited Silk Screening  
Tom & Susanne O'Brien  
Jacobs Engineering  
NASA Johnson Space Center  
Titan Systems  
ASME Petroleum Division  
Simplified Robotics  
Toyota  
Rotary Club of Decatur Daybreak  
XFab Semiconductor Foundries  
Texas Tech University Whitacre College of Engineering  
Texas Society of Professional Engineers  
IEEE

**Space City BEST**

**Tennessee Valley BEST**

**West Texas BEST**

**REGIONAL COMPETITION SPONSORS**



**Texas  
BEST**

Texas Instruments  
Raytheon  
Lockheed Martin  
Wells Fargo  
Devon Energy  
University of North Texas  
UNT College of Engineering  
Denton Convention and Visitors Bureau  
UNT Enrollment Management



**Frontier Trails  
BEST**

The City of Fort Smith, Arkansas  
University of Arkansas - Fort Smith



**South's  
BEST**

Auburn University, College of Science and Mathematics  
Auburn University, Samuel Ginn College of Engineering  
ABB Robotics (Birmingham)  
Auburn University Outreach  
Briggs & Stratton Foundation (Auburn)  
Department of Electrical and Computer Engineering,  
Auburn University  
Neptune Technology Group (Tallasse) (Tallasse)  
Southern Company Generation  
Southern Company Services (Birmingham)  
Southern Nuclear Company (Birmingham)  
Alabama Power Foundation (Birmingham)  
BE&K Construction (Birmingham)  
Brasfield & Gorrie Construction (Birmingham)  
Donaldson Foundation (Auburn)  
Dr. Mark Nelms, Department of Electrical and  
Computer Engineering  
Jacobs Engineering ESTS Group (Huntsville)  
Rheem Manufacturing (Montgomery)  
Toyota Motor Manufacturing (Huntsville)  
Dr. George Blanks, Ginn College of Engineering  
Facilities Division, Auburn University  
Mr. Calvin Cutshaw, Department of Electrical and  
Computer Engineering  
Women in Science and Engineering (WISE) Institute,  
Auburn University

# BEST Financials

BEST Robotics, Inc. is a 501(c)3 non-profit organization registered with the state of Texas. Each hub is financially independent, raising its own funding to cover the costs of its competition. Local hubs either have their own incorporation, operate under an existing non-profit such as a university, or operate under the umbrella of BEST Robotics. Hubs pay an annual licensing fee to BRI and benefit through the use of the annual game materials, staff coordination, and bulk purchasing power. Total contributions to Hubs and Regionals exceeded \$900,000 in 2007.

Fiscal Year Ending December 31, 2008

| Statement of Activities             |                 |
|-------------------------------------|-----------------|
| <b>Revenue</b>                      |                 |
| Hub Contributions                   | \$70,934        |
| Reimbursement of Material Purchases | \$20,011        |
| <b>Total Revenue</b>                | <b>\$90,945</b> |
| <b>Operating Expenses</b>           |                 |
| Management and General              | \$34,746        |
| Material Purchases                  | \$41,649        |
| <b>Total Operating Expenses</b>     | <b>\$76,396</b> |
| <b>Operating (loss) Gain</b>        | <b>\$14,550</b> |



| Assets                                | December 31, 2008   | December 31, 2007   | Change             |
|---------------------------------------|---------------------|---------------------|--------------------|
| Cash & Equivalent                     | \$113,389.50        | \$98,109.77         | \$15,279.73        |
| <b>Total Assets</b>                   | <b>\$113,389.50</b> | <b>\$98,109.77</b>  | <b>\$15,279.73</b> |
| <b>Liabilities &amp; Equity</b>       |                     |                     |                    |
| Payroll Liabilities                   | (\$7,178.76)        | (\$6,346.62)        | (\$832.14)         |
| <b>Total Current Liabilities</b>      | <b>(\$7,178.76)</b> | <b>(\$6,346.62)</b> | <b>(\$832.14)</b>  |
| <b>Equity</b>                         |                     |                     |                    |
| Opening Balance Equity                | \$23,015.39         | \$23,105.39         | 0                  |
| Retained Earnings                     | \$83,459.83         | \$67,157.02         | \$16,302.81        |
| Net Income                            | \$14,093.04         | \$14,283.98         | (\$190.94)         |
| <b>Total Equity</b>                   | <b>\$120,568.26</b> | <b>\$104,456.39</b> | <b>\$16,111.87</b> |
| <b>Total Liabilities &amp; Equity</b> | <b>\$113,389.50</b> | <b>\$98,109.77</b>  | <b>\$15,279.73</b> |

# 2008 Board of Directors

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“BEST has played a major role in where I am today. The competition helped me realize that I could truly do anything I set my mind to. After four years of successfully competing in BEST, my sights were set. I am currently a Cadet 3<sup>rd</sup> Class at the USAF Academy working towards my Mechanical Engineering degree and my dream of becoming an F-35 test pilot.”

Will Norton, former BEST student, Lamar County High School, Vernon, AL

“The community’s reaction to this project and the students’ achievements has been absolutely overwhelming.

Kathy Melaas, teacher, Cavalier Public School, Cavalier, ND

“The BEST experience is like an education greenhouse; what happens during six weeks of competition would take an entire year in the classroom.”

Dr. Mark Conner, teacher, Hoover High School, Hoover, AL

