

BEST 2013 Annual Report

Middle and High School Robotics Program

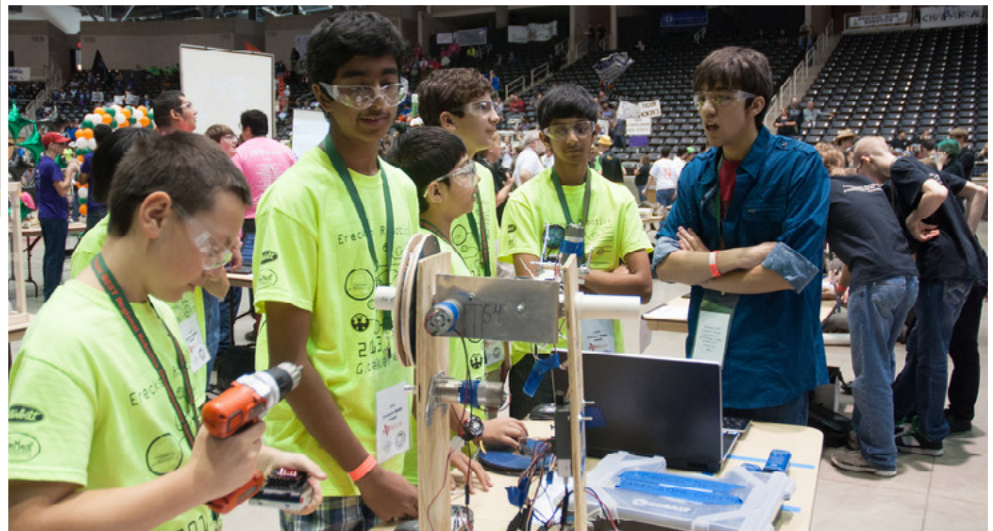
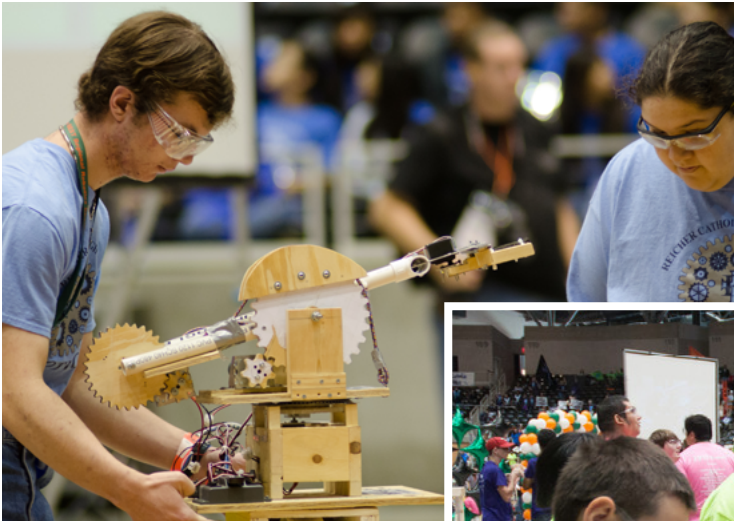


Boosting Engineering, Science, and Technology



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, technical professionals and scientists from industry—serve as guides to shepherd students through the engineering design process.
- Schools participate at no cost. There are no entry fees or kits to purchase associated with the BEST competition. Schools must fund their travel costs, team shirts, and other team enhancements.
- BEST is an equal opportunity program. Any public, private, or home school may participate in BEST.

The Gap

In the 20 years of BEST we have given students a path, a path to their future, a path strewn with gaps. Maybe they don't realize the importance of these gaps, but we do. For without this realization on our part, BEST will cease to be BEST.

In BEST, students encounter problems. Solving these problems is not our goal, how to approach these problems, is. We don't give the student everything to solve these problems. There is a gap, a gap we intentionally provide. Crossing that gap requires students to innovate, to create, and to discover the importance of crossing gaps, both professionally and personally.

In whatever aspect of Engineering, Science, or Technology they choose as their career, there will be these gaps waiting for them. Crossing these gaps will be their challenge, their vocation, and their very reason for doing what they do. We have discovered we are individuals who expect these gaps and have a talent for crossing them. We have even discovered we are individuals who covet the crossing. We want to find students who also may share this talent, this passion and show them that there is a career for crossing gaps.

But it is this very talent, this very joy of being able to cross these gaps and arrive at a solution that makes it so very difficult for us to create a problem that contains gaps. Our nature is to provide the method and materials we know will take a student across gaps. But, against our very



nature, we do not. We know that if we provide everything there will be no problem, no gap to be crossed. A gap is caused by something missing and we make sure something is missing. We provide the gap. For like us, students reach this gap, and like us, they smile.



Steve Marum and Ted Mahler

Co-Founders

Executive Director Report



I assumed the role of Executive Director mid-year and have been on a great learning curve ever since. However, one thing that I did know from my experience in both a local and regional hub is the extraordinary number of volunteers we have and their dedication. When you have a moment, look at our demographics. We are active in 19 states with nearly 50 hubs and reach over 15,000 students through the actions of volunteers.

This is truly the power of the people and through their efforts we continued to provide an exciting view and experience

of the STEM disciplines at NO COST to the participating teams. In addition to everything else they do for participating students, our volunteers raise all of the operating funds that we require each year.

I have included in this report a picture of me and my grandson at Texas BEST. While too young to participate, he is excited every year to attend, cheer, and VOLUNTEER!

The Board of Directors is dedicated to supporting our hubs and volunteers to the maximum extent possible. My role is to support the Board and be the primary point of contact for people interested in BEST Robotics. This is a role I take very seriously and will do my BEST.



Tom Fitzmaurice
Executive Director, BEST inc.

With the closing of the 2013 BEST Robotics season, we celebrate the accomplishments of the organization as well as reflect with amazement on the incredible work of the young people we serve. The implementation and



execution of the new BESTology program (executed by the Jubilee BEST A team) allowed coaches and mentors to access learning materials for use with our teams in their deeper learning about the game topic of Central Processing Units (CPUs) and their assembly process. The BEST national presence was also expanded through active use of social media increasing exposure through Facebook and Twitter.

As the BEST organization grows, we face challenges of growth and expansion while seeking sustainability. The annual support of our national sponsors makes this possible.

We are grateful for their financial support as well as the national exposure they provide the organization.

The 2013 season saw students perform complex problem solving at an amazing level. Our volunteers, hub directors, mentors and coaches worked tirelessly to make each event possible. Working together toward a common goal of learning success is the essential purpose of BEST Robotics and we are grateful for all of the individuals who contribute toward reaching that goal.

As my tenure as Board President ends and the new Board of Directors take the reins, I feel confident that they will continue to lead the organization toward a strong future. The purpose of the BEST organization remains the same – student-designed, student-built, students-driven robots at a cost that allows any school to participate.

Yours in BEST,

Eric Heiselt
President, BEST Board of Directors



Program Overview

- **BEST** originated in 1993 when Ted Mahler and Steve Marum, two engineers with Texas Instruments in Sherman, Texas, started the program as a competition for rural schools in the area. The first competition hosted 14 schools and 221 students. In fall 2013, over 853 teams and 15,354 students participated.
- **BEST Robotics, Inc.** (BRI or BEST) incorporated as a 501(c)(3)3, non-profit organization in 1998.
- **BEST** is a volunteer-driven organization, with over 10,000 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 and host the program in their communities. Any group—companies, school systems, two- or four-year colleges or universities, professional engineering societies, or individuals can start a hub. Funding for a hub must be raised by the local organizing group.

Competition Overview

- The program mirrors a full product development cycle from concept through head-to-head evaluation (i.e., competition). The program and its end product, the competition robot, are used as educational tools to introduce students to the complete engineering design process and the many aspects of true product development.
- Each team designs and builds a radio-controlled machine to accomplish defined tasks in a game-type format. In September, six weeks before the competition, the teams gather at local hub sites for Kick-Off Day where they receive identical kits of equipment (e.g., microcontroller, motors, batteries, etc.) and raw materials (e.g., plywood, PVC pipe and connectors, screws, bolts, nuts, glue, etc.) from which to build their machines. Teams also receive a detailed set of game rules and are shown a demonstration of the game on the playing field. The machines they build cannot exceed 24 pounds, must fit within a 24-inch cube at the starting position, and must be built only from the materials provided in the kit. At the end of the six week development cycle teams compete head-to-head on the playing field to determine which machine is the best.
- Besides the design of the machine, each team also participates in other activities related to a product development such as technical writing, sales and marketing, and public relations. Teams that score well in all activities have a chance to win the BEST Award, the most prestigious award given for a team that truly grasps the product development principles and the concept of Boosting Engineering Science and Technology. The BEST Award judges the team through their Project Engineering Notebook, Marketing Presentation, Educational Team Exhibit, Interviews with judges, Spirit and Sportsmanship and their Robot’s Performance in the head-to-head competition.

Program Features

BEST inspires students to pursue careers in engineering, science and technology. This is critical given the dearth of engineers that industry is experiencing now and will continue to experience in the future.

BEST helps prepare students to be technically proficient in tomorrow’s workforce.

BEST teaches teamwork and leadership development as well as analytical, decision-making, and problem-solving skills.

BEST students experience “design-to-market” product development – experience that is transferable to all engineering and science disciplines and career pursuits

BEST provides participating students recognition and acclaim typically reserved for their peers in sports.

BEST enhances teacher effectiveness.

BEST is an outstanding educational program accessible to all students, schools, and communities.



2013 Game Description

The Story Behind the 2013 Game, "Gatekeeper"

Educational Theme: Building a Central Processing Unit (CPU)

The Story Line

As the world of electronics grows larger and larger, the internal components continue to grow smaller and smaller. Transistors, gates, registers, memory, decoders - all working together making electronics simple yet complex. Future economies will depend on building the BEST robots and cutting-edge technology. The BEST Robotics motto has always been "no robot left behind". One challenge remains: Squeaky, the original BEST robot, needs serious upgrades to become Squeaky 2.0.

Almost all of the components for Squeaky's upgrade have been secured through generous BEST sponsors, but one component is still missing: the BEST CPU (Central Processing Unit). Squeaky 2.0 will require the newest and fastest CPU on the market.

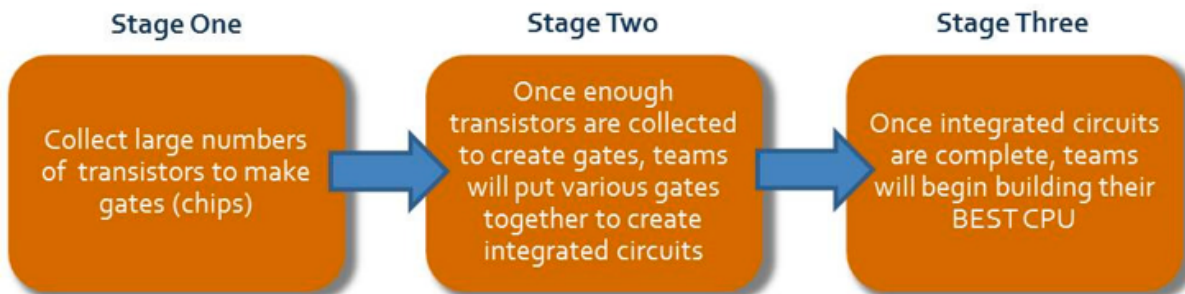


BEST Team Challenge

BEST Robotics will be interviewing corporations in 42 days to award the contract to upgrade Squeaky. BEST Robotics will base the award on efficiency of each company's production line (robot performance), engineering notebook, marketing strategy, exhibit booth, and sportsmanship. Apply logic and critical thinking skills to determine the number of transistors and types of gates needed to be successful. As the "Gatekeeper", we look forward to seeing you in 42 days to determine which corporation is the BEST of the BEST!

Team Objectives

Design a prototype robot to construct a CPU over the course of three fabrication stages.



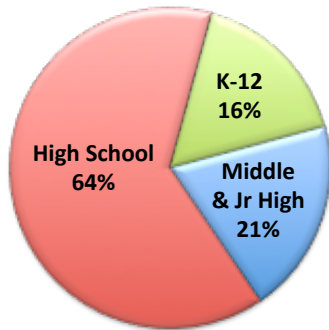
Stage 1: Gate Fabrication Collect transistors (wooden dowel rods) and places them into designated receptacles within the Gate Fabrication area to be converted into the desired logic gates. Transistors may be converted into the following logic gates: AND, OR, NOT, and NAND.

Stage 2: Integrated Circuit (IC) Fabrication Collect logic gates (colored plastic coat hangers) and place them in the proper combinations within the IC Fabrication area to be converted into the desired integrated circuits, or "ICs". Logic gates may be converted into the following ICs: Multiplexers (MUX), Adders, Decoders, and Data Latches (D-Latch).

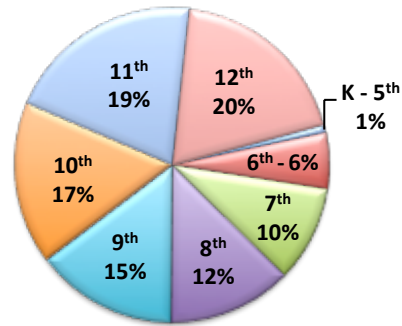
Stage 3: CPU Fabrication Place ICs (aluminum-coated insulating foam with a 1"x 2" wooden handle) within the CPU Fabrication area to be converted into the components necessary for a CPU. ICs may be converted into the following CPU components: Registers, Arithmetic Logic Units (ALUs), Instruction Decoders, Memory Units and Address Decoders.

2013 Demographics

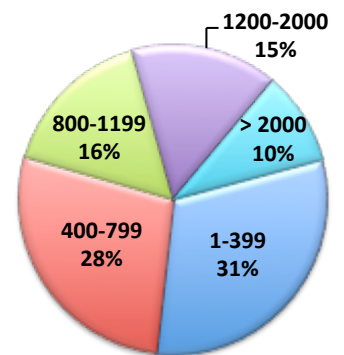
School Type



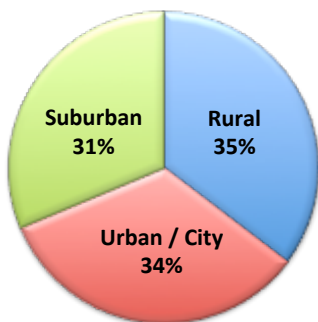
School Grades



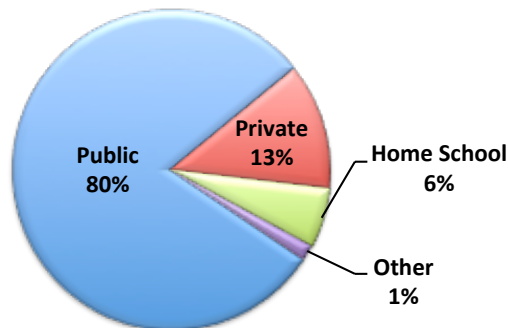
School Student Population



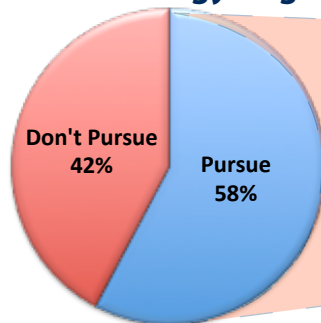
School Location



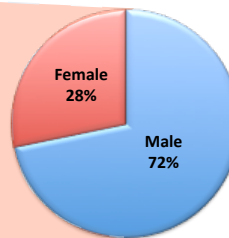
School Classification



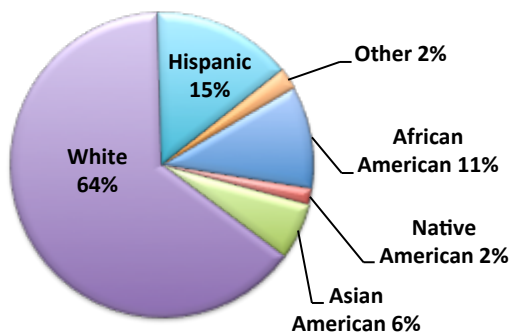
Plan to Pursue Engineering, Science, and Technology Degree



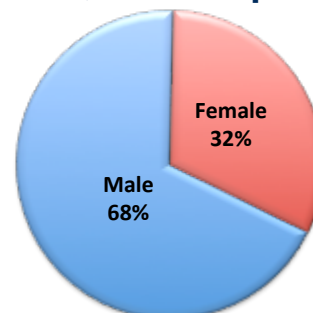
Plan to Pursue, by Gender



Ethnicity



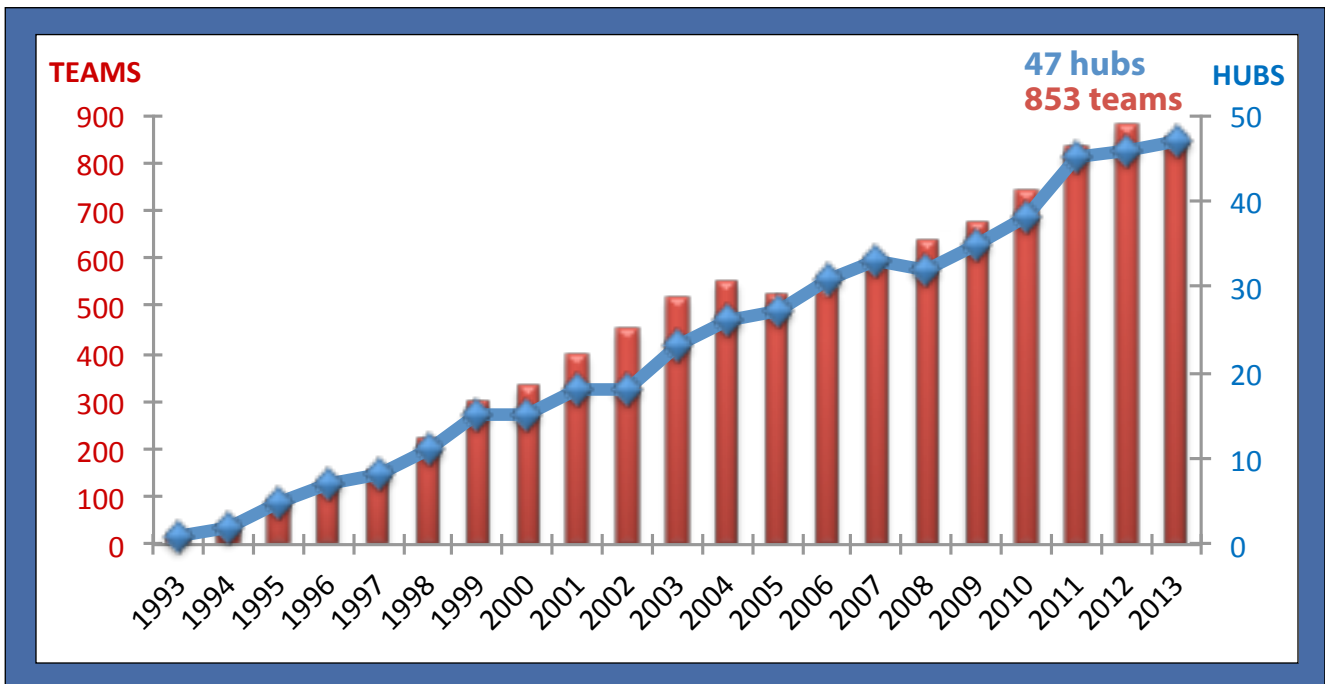
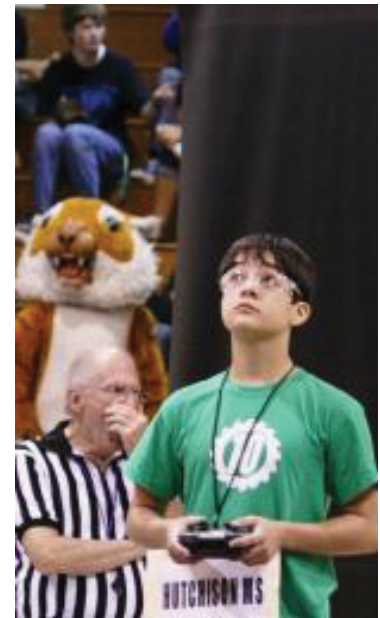
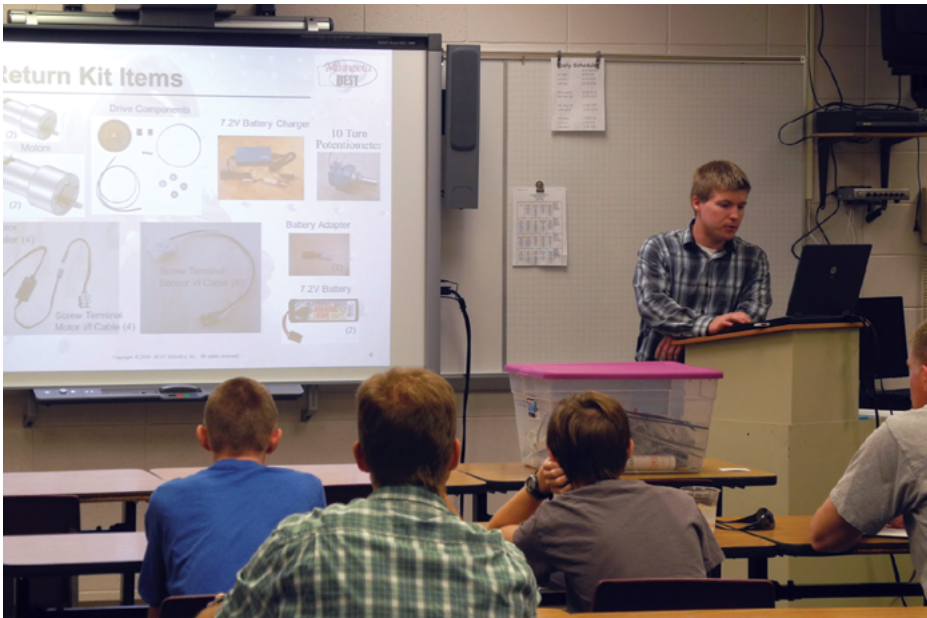
Gender, All Participants



Hub and Team Growth

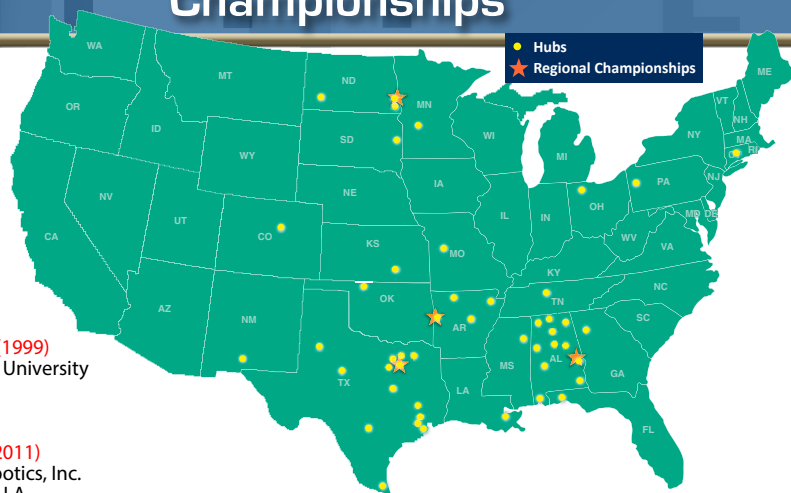
As a result of participating in BEST, students...

- 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.



Competition Sites

2013 Hubs and Regional Championships



ALABAMA

Blazer BEST (2008)
University of Alabama at Birmingham
Birmingham, AL

Central Alabama BEST (2011)
Central Alabama Community College
Talladega, AL

Jubilee BEST (2004)
Jubilee BEST Robotics, Inc.
Mobile, AL

North Alabama BEST (2009)
Wallace State Community College
Hanceville, AL

Northeast Alabama BEST (new in 2012)
Northeast Alabama Community College
Rainsville, AL

Northwest Alabama BEST (2011)
Northwest Shoals Community College
Muscle Shoals, AL

Selma BEST (new in 2012)
Wallace Community College
Selma, AL

Shelton State BEST (new in 2012)
Shelton State Community College
Tuscaloosa, AL

Tennessee Valley BEST (2003)
Calhoun Community College
Decatur, AL

War Eagle BEST (2001)
Auburn University
Auburn, AL

Wiregrass BEST (2010)
Wiregrass BEST, Inc.
Dothan, AL

ARKANSAS

Little Rock BEST (2009)
University of Arkansas at Little Rock
Little Rock, AR

Northark BEST (2006)
North Arkansas College
Harrison, AR

River Valley BEST (2003)
University of Arkansas - Fort Smith
Fort Smith, AR

COLORADO

Rocky Mountain BEST (2010)
Rocky Mountain BEST, Inc.
Denver, CO

CONNECTICUT

Connecticut BEST (2006)
Central Connecticut State University
New Britain, CT

FLORIDA

Emerald Coast BEST (2007)
University of West Florida
Pensacola, FL

Florida West Coast BEST
University of West Florida
Tampa, FL

GEORGIA

Georgia BEST (2003)
Southern Polytechnic State University
Marietta, GA

KANSAS

Kansas BEST (1999)
Wichita State University
Wichita, KS

LOUISIANA

NOLA BEST (2011)
Red Stick Robotics, Inc.
New Orleans, LA

La Tech BEST
Red Stick Robotics, Inc.
& Louisiana Tech University
Ruston, LA

MINNESOTA

Minnesota BEST (new in 2012)
New London-Spicer Schools
New London, MN

MISSISSIPPI

Mississippi BEST (2005)
Mississippi State University
Starkville, MS

MISSOURI

Show Me BEST (2011)
State Fair Community College
Sedalia, MO

NEW MEXICO

New Mexico BEST (2001)
New Mexico State University at Las Cruces
Las Cruces, NM

NORTH DAKOTA

Bison BEST (2007)
North Dakota State University
Fargo, ND

Blue Hawk BEST (2011)
Dickinson University
Dickinson, ND

Wildcat BEST (new in 2012)
North Dakota State College of Science
Wahpeton, ND

OHIO

Falcon BEST
Bowling Green State University
Bowling Green, OH

OKLAHOMA

Heartland BEST (2002)
Northwestern Oklahoma State University
Alva, OK

PENNSYLVANIA

Wolverine BEST (2010)
Grove City College
Grove City, PA

SOUTH DAKOTA

Jackrabbit BEST (new in 2012)
South Dakota State University
Brookings, SD

TENNESSEE

Music City BEST (2006)
Lipscomb University
Nashville, TN

TEXAS

Big Country BEST (2011)
Texas State Technical College - West Texas
Sweetwater, TX

Capitol BEST (2001)
Capitol BEST, Inc.
Austin, TX

Collin County (CoCo) BEST (1995)
Collin County BEST, Inc.
McKinney, TX

Cowtown BEST (2001)
Lockheed-Martin Aeronautics
Fort Worth, TX

Dallas BEST (1996)
Texas Instruments
Dallas, TX

U-STEM BEST (2009)
University of Texas-Medical Branch
Galveston, TX

Heart of Texas BEST (2010)
Texas State Technical College - Waco
Waco, TX

Lion's Pride BEST (2010)
Texas A&M University - Commerce
Commerce, TX

North Houston BEST (1999)
Baker-Hughes, Inc.
The Woodlands, TX

Rio Grande Valley BEST (2011)
Texas State Technical College - Harlingen
Harlingen, TX

San Antonio BEST (1994)
San Antonio BEST, Inc.
San Antonio, TX

Southeast Texas BEST (2011)
Sam Houston State University
Huntsville, TX

West Texas BEST (1995)
Texas Tech University
Lubbock, TX

REGIONAL CHAMPIONSHIPS

Frontier Trails BEST (2005)
University of Arkansas - Fort Smith
Fort Smith, AR

Northern Plains BEST (new in 2012)
North Dakota State University
Fargo, ND

South's BEST (2003)
Auburn University
Auburn, AL

Texas BEST (1994)
University of Texas at Dallas
Dallas, TX

2013 BEST National Partner



In 2011, MathWorks became BEST Robotics' first-and-only National Corporate Partner through its generous funding support for the BEST Robotics organization. The company is the leading developer of mathematical computing software for engineers and scientists in the world. MathWorks equips BEST teams with software, training, and mentoring to tackle the same technical issues as professional engineers. Industry-standard MATLAB® and Simulink® provide a flexible design environment where BEST students can apply classroom theory to solve problems encountered in designing their robots.

2013 BEST National Sponsors



Since 2005, SolidWorks® has been providing their CAD Design software free to all BEST students. Their BEST and VEX CAD models, curriculum, tutorials, and design tools have been invaluable in helping students understand the basics of robot design.



Now owned by AutoDesk, HSMWorks is the leading Computer Aided Manufacturing (CAM) software for SolidWorks and AutoCAD. HSMWorks provides seamless integration of 2D and 3D toolpath programming directly into SolidWorks. BEST students can now take their CAD models developed in SolidWorks and within minutes be cutting parts out on their school's router or CNC machine, all from within the SolidWorks environment.



Robotmatter incorporated provides its ROBOTC programming software for VEX Cortex and Robot Virtual Worlds free to all BEST teams during the competition season. ROBOTC is the premiere C-based robotics programming language for educational robotics and competitions. It is ideal for those students who want to go beyond simple drag-and-drop programming to writing their own code.



Solidwize provides each BEST team with free online SolidWorks training courses that guide students through the learning process with a highly effective holistic approach to teaching that inspires confidence rather than confusing and frustrating them. The video-based follow-along step-by-step instruction is available on-line 24/7. Students can gain enough knowledge with this training to receive their SolidWorks certification.



In 2005, igus®, Inc. became BEST's first National Corporate Sponsor by donating its innovative polymer automated machinery parts to every BEST team for use in the design of their robots. The incorporation of these parts revolutionized the robotics competition by enabling students to design more innovative and efficient machines.



Intelitek, developers, producers and suppliers of industrial Blended Learning Technology Training Systems, provides its EasyC programming software for the VEX Cortex microcontroller free to all BEST teams and teachers. Designed with BEST students in mind, easyC's simple to use drag-and-drop programming interface does all of the syntax and spacing, allowing students to focus on program flow and robot design.



Wolfram Research annually provides BEST students with its renowned computational product, Mathematica. Whether it is research, computations, or technical documentation tasks, Mathematica helps students be their most productive.

BEST Founding Sponsor



2013 Regional Championship Sponsors



Frontier Trails

Fort Smith Convention and Visitors Bureau
OGE Energy Corp. Foundation, Inc.
Peterson Chemicals, Inc.
University of Arkansas - Fort Smith
Baldor Electric Company
Weldon, Williams & Lick, Inc.
Gerdau
Shamrock Bolt & Screw Company
J&B Supply Company
Eureka Pizza
ABF U-Pack Business Development
Lumber One



Northern Plains

North Dakota State University – College of Engineering
KL&J
North Dakota Department of Career and Technical Education
John Deere Electronic Solutions
Microsoft
NDSU Development Foundation
702 Communications
Moore Engineering
Ulteig
FM Convention & Visitors Bureau
Games Galore



South's BEST

VisualEdge
International Society of Automation
Army ROTC
Briggs & Stratton
VWR Charitable Foundation
Carmichael Engineering
Auburn-Opelika Tourism Bureau
Hyundai Motor Manufacturing Alabama
Donaldson Company
Neptune Technologies Group
Wells Fargo
Brasfield & Gorrie Construction
Southern Company
Auburn University Outreach






Texas BEST

Texas Instruments
Lockheed Martin
Raytheon
Rockwell Collins Science and Engineering Education Center
Erik Jonsson School of Engineering & Computer Science

- Premiere Level Sponsors
- Diamond Level Sponsors
- Platinum Level Sponsors
- Gold Level Sponsors
- Silver Level Sponsors

2013 Hub Sponsors

-  Premiere Level Sponsors
-  Diamond Level Sponsors
-  Platinum Level Sponsors
-  Gold Level Sponsors
-  Silver Level Sponsors

Big Country BEST

Ludlum Measurements, Inc

Bison Best

North Dakota State University
– College of Engineering & Arc
KL&J

North Dakota Department of Career
and Technical Education
John Deere Electronic Solutions
UTC Aerospace Systems
North Dakota State College of Science
Bobcat
Ulteig
Basin Electric Power Cooperative

Blazer BEST

University of Alabama at Birmingham
Valmont-Newmark

Blue Hawk BEST

DSU STEM Initiative
Sears
Floor to Ceiling

Capitol BEST

Freescale Semiconductor
Skillpoint Alliance
Texas State University
Houghton-Mifflin Publishers
Ken Burch

Central Alabama BEST

Central Alabama Community College
Honda Manufacturing of Alabama
Alabama Governor's Office of
Workforce Development
Alabama Power Company
Talladega Rotary Club
McCartney Construction Company
Talladega Superspeedway
International Motorsports Hall of Fame
Representative Steve Hurst
The Daily Home

Collin County (CoCo) BEST

Raytheon
Garry and Janne Ackerman
Xerox Printing Services
Allen ISD, Allen, Texas

Cowtown BEST

Lockheed Martin Aeronautics
Company

Dallas BEST

Texas Instruments
– Analog Engineering Operations
Texas Instruments - DLP Products
Raytheon

Emerald Coast BEST

AT&T
Gulf Power

Falcon BEST

Honda North America
Lathrop Construction
Argo Hytos

Georgia BEST

Siemens
Marietta NDT

Heart of Texas BEST

Texas State Technical College
Community Bank & Trust
First National Bank of Central Texas

Heartland BEST

Charles Morton Share Trust
Foundation
Northwestern Oklahoma State
University
Iigus, Inc.
Innovations First International
SolidWorks
MathWorks

Jackrabbit BEST

SDSU Jerome J. Lohr
College of Engineering
Daktronics 3M
First Premier Bank
Vision Brookings
First Bank & Trust
Xcel Energy
Avera
Sparton
3M

Lowe's
TV Productions
Premier Source
NorthWestern Energy

Jubilee BEST

J.L. Bedsole Foundation
Alabama Power
Aztec Maritime Services
University of South Alabama
– School of Computing
Conde Systems
Evonik
Hargrove Engineers + Constructors
Chevron
University of South Alabama
– College of Engineering
Airbus
Technip
Faulkner State Community College
BASF
Ingalls Shipbuilding
ExxonMobil
TSCI
Lowe's
BakerBytes
Callis Communications

Kansas BEST

Cessna Aircraft Company
Bombardier Learjet
Spirit AeroSystems
Great Plains Ventures, Inc.
Airbus Americas Engineering, Inc.
SPEEA
Randal & Elizabeth Atkeisson

La Tech BEST

Red Stick Robotics

Lion's Pride BEST

Anonymous
Harrison Walker & Harper 1887
FlowServe
TAMUC College of Science,
Engineering, & Agriculture
L3 Mission Integration

Hubs that are not listed did not provide any sponsor information

2013 Hub Sponsors (continued)

Little Rock BEST

Caterpillar
Entergy

Minnesota BEST

Kandiyohi County & Willmar Economic
Development Commission
Prinsco
Jennie-O Turkey Store
Willmar Lakes Area CVB
Lakeland Broadcasting Q102
City of Willmar

Mississippi BEST

Toyota
Caterpillar
Bagley College of Engineering
EpsCor
Kimberly-Clark
Missile Defense Agency- STEM Outreach
Mississippi Manufacturing Association
Nissan

Music City BEST

Nissan North America

New Mexico BEST

Calculex
The Boeing Company
Jacobs Technology
New Mexico Space Grant Consortium
TRAX International
El Paso Electric

NOLA BEST

Red Stick Robotics

North Houston BEST

Baker Hughes
American Society of Mechanical
Engineers
GJ Snyder III
ExxonMobil

Northeast Alabama BEST

Governors Office of Workforce
Development
Missile Defense Agency STEM Outreach
Tennessee Valley Authority
DeKalb County Development Commission
DeKalb County Homebuilders Assn.
WalMart Foundation

Northwest Alabama BEST

TVA
Walmart, Neighborhood Market,
Florence, AL
Allstate Insurance - Teresa Rogers
Wise Alloys
Alabama Technology Network (ATN)
Flexco

River Valley BEST

Fort Smith Convention
and Visitors Bureau
OGE Energy Corp. Foundation, Inc.
Peterson Chemicals, Inc.
University of Arkansas - Fort Smith
Baldor Electric Company
Weldon, Williams & Lick, Inc.
Gerdau
Shamrock Bolt & Screw Company
J&B Supply Company
Eureka Pizza
ABF U-Pack Business Development
Lumber One

Rocky Mountain BEST

Jeppesen, A Boeing Company
Raytheon
Metropolitan State University of Denver
Club Workshop, LLC
Dick and Judy Tumlinson
The Quick Foundation
Scitor Corporation
The Lowry Conference Center
The Noerr Programs Corporation

San Antonio BEST

Tesoro Corporation
Southwest Research Institute
NuStar Foundation
Society of American Military Engineers,
San Antonio Branch
Zachry Corporation
Security Service Federal Credit Union
Frost Bank
Cutshall Consulting LLC

Selma BEST

Wallace Community College Selma
Honda Lock
MJ93 Foundation
Alabama Power

Shelton State BEST

Mercedes-Benz U.S. International, Inc
RocTenn

Show Me BEST

ProEnergy Services
Johnson Controls

Southeast Texas BEST

Sam Houston State University
Knowledge Based System Inc
Capsher Technology
HW Hydraulic Works

Tennessee Valley BEST

Toyota
Alabama Workforce Development
TVA
Rotary Club of Decatur Daybreak

War Eagle BEST

VisualEdge
International Society of Automation
Army ROTC
Briggs & Stratton
VWR Charitable Foundation
Carmichael Engineering
Auburn-Opelika Tourism Bureau
Hyundai Motor Manufacturing
Alabama
Donaldson Company
Neptune Technologies Group
Southern Nuclear
Southern Company
Wells Fargo
Brasfield & Gorrie Construction
Southern Company Service
Auburn University Outreach

West Texas BEST

Texas Tech Whitacre
College of Engineering
IEEE South Plains Chapter
IEEE Region 5

Wiregrass BEST

Michelin North America Inc
Globe Motors Inc

Wolverine BEST

ANSYS, Inc.
The Grable Foundation
Bechtel Plant Machinery Inc.

Statement of Activities December 31

	Dec. 31, 2013	Dec. 31, 2012	Dec. 31, 2011
Assets			
Cash and Equivalent			
Total Checking/Savings	\$345,359.41	\$272,479.77	\$182,594.47
Total Accounts Recievable	-\$81.85	-\$81.85	-\$57.69
Total Other Current Assets	\$0.00	\$0.00	\$10,184.01
Cash and Equivalent	\$345,277.56	\$272,397.92	\$192,720.79
Total Assets	\$345,277.56	\$272,397.92	\$192,720.79
Liabilities and Equity			
Total Current Liabilities	\$0.00	\$0.00	-\$7,364.81
Total Liabilities	\$0.00	\$0.00	-\$7,364.81
Total Equity	\$345,277.56	\$272,397.92	\$200,085.60
Total Liabilities & Equity	\$345,277.56	\$272,397.92	\$192,720.79



2013 BEST Robotics Inc. Leadership

Executive Director

Tom Fitzmaurice

Director of Operations

Greg Young

Assistant to the Board

Rhonda Sherrell

Board of Directors

President	Eric Heiselt
Vice President	Ken Berry
Secretary	Todd Atkins
Treasurer	Patricia Sullivan

Hub District Representatives

District 1 Representative

Gail Fulenwider, Crowley's Ridge (Jonesboro, AR); Heartland (Alva, OK); Kansas (Wichita); Little Rock (AR); Northark (Harrison, AR); River Valley (Fort Smith, AR); Rocky Mountain (Denver, CO); Show Me (Sedalia, MO)

District 2 Representative

GJ Snyder, (Hub Director, North Houston), Capitol (Austin); Galveston; Heart of Texas (Waco); North Houston (The Woodlands); Rio Grande Valley (Harlingen); San Antonio (San Antonio); Southeast Texas (Huntsville); Space City (Houston)

District 3 Representative

Sue Mitchell, Blazer (Birmingham, AL); Central Alabama (Talladega, AL); Georgia (Marietta, GA); Music City (Nashville, TN); North Alabama (Hanceville, AL); Northeast Alabama (Rainsville, AL); Northwest Alabama (Muscle Shoals, AL); Tennessee Valley (Decatur, AL); War Eagle (Auburn, AL)

District 4 Representative

Patricia Sullivan, (Hub Director, New Mexico) Big Country (Sweetwater); Collin County (McKinney); Cowtown (Ft. Worth); Dallas (Dallas); Denton County (Denton); Lions Pride (Commerce); New Mexico (Las Cruces); West Texas (Lubbock)

District 5 Representative

Eric Heiselt, (Hub Director, Mississippi), Emerald Coast (Pensacola, FL); Florida West Coast (Tampa, FL); Jubilee (Mobile, AL); Mississippi (Starkville); NOLA (New Orleans, LA); Selma (Selma, AL); Shelton State (Tuscaloosa, AL); Wiregrass (Dothan, AL)

District 6 Representative

Alan Kallmeyer, (North Dakota), Bison (Fargo, ND); Blue Hawk (Dickinson, ND); Connecticut (New Britain, CT); Falcon (Bowling Green, OH); Jack Rabbit (Brookings, SD); Minnesota (New London, MN); Wildcat (Wahpeton, ND); Wolverine (Grove City, PA)

Regionals Representative

Ken Berry (Co-Director, Texas)

At Large Members

Dan Ward (Indiana Robotics Educators)

Miguel Garcia-Rubio (University of North Texas)

Daniel Curtis (Massachusetts Institute of Technology)

Todd Atkins (Mathworks Inc.)

Board Committees and Chairs

Awards & Judging	Jason Devillier
Board Development	Miguel Garcia-Rubio
Communications	GJ Snyder
Game	Greg Young
Hub Development	Open
Kit	David Kwast
National Championship Study	Open
National Conference	Eric Heiselt
Public Awareness	Todd Atkins
Software	Greg Young
Fund Development	Ken Berry
Policies and Procedures	Daniel Curtis
Strategic Planning Committee	Todd Atkins

Testimonials

Jack – Blazer BEST – 6th grade

I think that BEST has helped me understand that technology is everywhere and almost every career uses it.

Rachel – San Antonio BEST – 11th grade

It has shown me how to participate in a team in order to achieve a goal. I have learned so much about working with others and identifying with leadership roles. It has expanded my perspective of the possibilities of technology.

Ross – Blazer BEST – 12th grade

It has helped me realize that the engineering process is more than just building things. I have learned that public speaking, marketing, and documentation are also crucial aspects of engineering. The process of designing the robot also improved my skills of leadership among peers, as well as skills in patience, troubleshooting, and overall engineering. The program as affirmed my desire to pursue a career in the engineering field.

Jenna – Capitol BEST – 7th grade

I enjoy robotics because I've learned so much from it that I wouldn't learn in middle school. It expands my horizons about cutting-edge technology and what they are made of. Most important, I've learned about teamwork and even though we are a small middle school, if we do our best, we can go far!

Xian – Northwest Alabama BEST – 12th grade

I already knew that I wanted to be an engineer or computer scientist, but BEST gave me the experience I needed to know that I wanted to enter this field for sure. This opportunity was fun and engaging, and I loved being part of a team that also loved it.

Trey – Mississippi BEST – 12th grade

Participating in BEST Robotics has been one of the best decisions I've made in high school. It has helped me discover my career path, practice leadership, and learn to work well with others.

Haddie - Mississippi BEST – 9th grade

Participating in BEST and our school robotics club taught me many things. The long nights of seemingly impossible tasks taught me perseverance, the marketing presentation taught me public speaking skills, the pit crew and teamwork required taught me how to work with others, and most importantly, through my own experiences and through the examples set by our club leaders, I learned what leadership was. Robotics was such a valuable experience and I bonded with my fellow club members in ways not possible in any other club. It also made me realize I really enjoy engineering and I am now considering it to be one of my possible career choices.

Noah – Rocky Mountain BEST – 11th grade

BEST has revealed to me that I truly desire to pursue a career path in the field of sciences. I greatly enjoyed overcoming the challenges faced in designing and build the arm for our robot, as well as, troubleshooting the code.

Blaise – Cowtown BEST – 12th grade

BEST has helped me look towards Engineering as a possible career path because I enjoyed watching the robot and team progress as the season went on, and I felt satisfaction from watching all the separate elements come together to make a working robot.

Caitlyn – New Mexico BEST – 9th grade

BEST has helped me grow in areas such as public speaking, communication, and working with others. I've had so many opportunities that I never would have done like meeting community leaders and writing press releases. BEST has been a great learning experience!

Malcolm – Georgia BEST – 12th grade

BEST has shown the possibilities of robotic technology to creating solutions to problems in the world. It has also heightened my interest in mechanics and understanding how they work and how to apply them to robotics and solving problems. I plan on taking this along with the management and business skills I've learned in BEST to college and in my future career.

Parker - Minnesota BEST – 10th grade

BEST has opened up a whole realm of possibilities to me. Via BEST and team mentors, I have learned of the many career opportunities for engineering and robotics. Thanks in part to BEST, I now plan to get a degree in engineering. Being part of a BEST team has taught me so much, not only robotics related (brainstorming, construction, programming, etc) but also other life skills (writing, team work, leadership, speaking, etc). I am very grateful to BEST for this amazing opportunity I have been given.

Sounds like a bored student...

BEST has mostly served as an outlet to break away from the monotony of school life additionally, it has given me something to dedicate time to, rather than just mindlessly study and repeat what teachers ask of me for tests.

Ruth Bealle – Rosa A. Lott Middle School Teacher

Our participation in BEST Robotics this year has impacted the Lott Middle School Robotics Team in a tremendous way. Each team member has advanced in ability to use the engineering design process and in ability to construct their design. Collaboration and cooperation is at an all-time high and members are much more interested in listening to the ideas of others. Being involved in BEST has dramatically enhanced problem solving and decision-making skills, along with technical writing ability. From the beginning to the end of this year, the difference in our team is amazing. We all look forward to next year's fun and challenge.

Angie Dixon – St. Luke's Episcopal School Teacher

Every year we see students involved in best that are learning new skills. We had the good fortune to have college students from the University of South Alabama get involved as mentors this year. They worked very closely with a 6th grader who was new to the program this year. That 6th grade student benefitted from these mentors as they taught him to program the robot. While, as a 6th grade student, this young man still has a lot to learn, the benefit he received from the mentoring of two college students was significant. We also saw the high school members of our team come together to focus on strategy this year. One student took on strategy development, but as he presented it to the others, they began to see flaws in the proposed strategy. To see a junior accept the criticism of his peers and work with them to redevelop the game strategy for the betterment of the team was a leap forward in teamwork and maturity for many of our members. Additionally, when they had difficulty on the field, our team members went to another team for help and advice. Not only did this get our members back into the game, it also showed growth and maturity on their part.



BEST

Boosting Engineering, Science, and Technology

<http://www.bestinc.org>