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# **FIRST® Team 2468**

## **Westlake High School, Eanes ISD; Austin, TX**

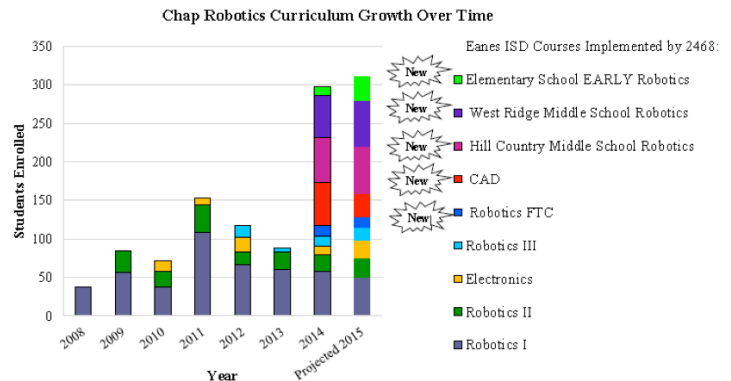
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FIRST FRC® Team 2468 is based at Westlake High School in Austin, TX. The team was established in 2008 and has grown from one team of 35 students to a fully integrated program with 9 teams of over 300 students, as well as a full robotics curriculum encompassing elementary through high-school courses.

### **2013-2014 Corporate Sponsors**

- Freescale Semiconductor
- Xerox Corporation
- Barry Consultants
- National Instruments
- BAE Systems
- Pixels & Verbs, LLC
- 37signals



### **Benefits of Team Participation**

Team membership is open to all students in our school, although many members are also enrolled in either one of the robotics or related courses (electronics, CAD, etc.).





- Almost daily opportunities to work side-by-side with skills industry professionals, much as they would on-the-job.
- Practical application of knowledge gained in other courses (e.g., physics, calculus, programming) significantly enhances understanding.
- Opportunities for intense training in areas such as presentation skills, training, sales and fundraising, public relations, marketing, process management, and more.

### **Program Highlights**

- Over 170 outreach events touching over 430,000 people in 7 countries, including the US, South Africa, Korea, Ukraine, Ethiopia, Australia and India with our STEM education message
- Appearances in the TV show Revolution and the movie Transformers: Age of Extinction, reaching an estimated audience of over 50 million viewers
- Unique fundraising program that earned the FRC Entrepreneurship Award at all three regional events in which our team competed in 2014
- Establishment of **ChapResearch**—a district-wide research and development program to encourage student-led innovation and entrepreneurship
- Submission of two US patent applications for student-developed products and over \$1500 revenue gained from sale of student-developed products, with additional funds going to charity

## ChapResearch Division

Our program improves *FIRST*, our community, and the world through the design and manufacture of ground-breaking designs and inventions. After the creation of the patent-pending ChapR™ device, we officially established ChapResearch as our R&D division to better organize the design and production of such efforts.

 <p style="text-align: center;"><b>The 3D-Printed String Potentiometer</b></p> <ul style="list-style-type: none"> <li>Sold through AndyMark®</li> <li>Previously only available for greater than \$400 (illegal for FRC)</li> <li>Our version can be made for less than \$40</li> <li>440 units sold to date (equivalent to 15% of all FRC)</li> </ul>	<p style="text-align: center;"><b>The ChapR™ Device for FTC® Robots</b></p> <ul style="list-style-type: none"> <li>Patent application filed in September 2014</li> <li>Eliminates need for PC during practice</li> <li>Every unit is student manufactured</li> <li>40+ units sold to date</li> <li>Profits go to providing ChapR devices at no cost to at-need teams (5 as of April</li> </ul> 
 <p style="text-align: center;"><b>The Hydro Hauler</b></p> <ul style="list-style-type: none"> <li>Provisionally patented water transport wheel</li> <li>30 devices implemented in 10 villages in Ethiopia</li> <li>Actively involved with Dean Kamen in development of Slingshot™ partnership and broader distribution channels</li> </ul>	<p style="text-align: center;"><b>Navigation System for Visually Impaired Students</b></p> <ul style="list-style-type: none"> <li>Sponsored by Alliance Tech (donor of RFID tags)</li> <li>Planned installation of RFID tags through school</li> <li>Tags sensed by devices on students' canes that provide vibration or voice direction</li> </ul> 

## FIRST Team 2468 Award History

While actively embracing the innovation, classroom development, community outreach, and entrepreneurship tenets of *FIRST* Robotics, Team Appreciate is, first and foremost, a competitive robotics team. Our program has seen consistent growth in technical performance and recognition over its history.

Award	2008	2009	2010	2011	2012	2013	2014
Regional Rookie All-Star	1						
Regional Finalist					1		2
Regional Winner						1	1
Regional Chairman's						1	1
Championship Division Engineering Inspiration							1
Regional Entrepreneurship					1		3
Regional Engineering Excellence/Creativity		1		1		1	
Woodie Flowers Finalist						1	2
Dean's List Finalist					1		1