

LISA Academy Robotics

Benefits to Robotics

- Teaches teamwork and “gracious professionalism”
- Teaches students real world skills
 - Programing Prowess
 - Impressive Workmanship
 - Group Collaboration
 - Application of Math and Science
 - Business Management
 - Efficiency / Time Management Skills

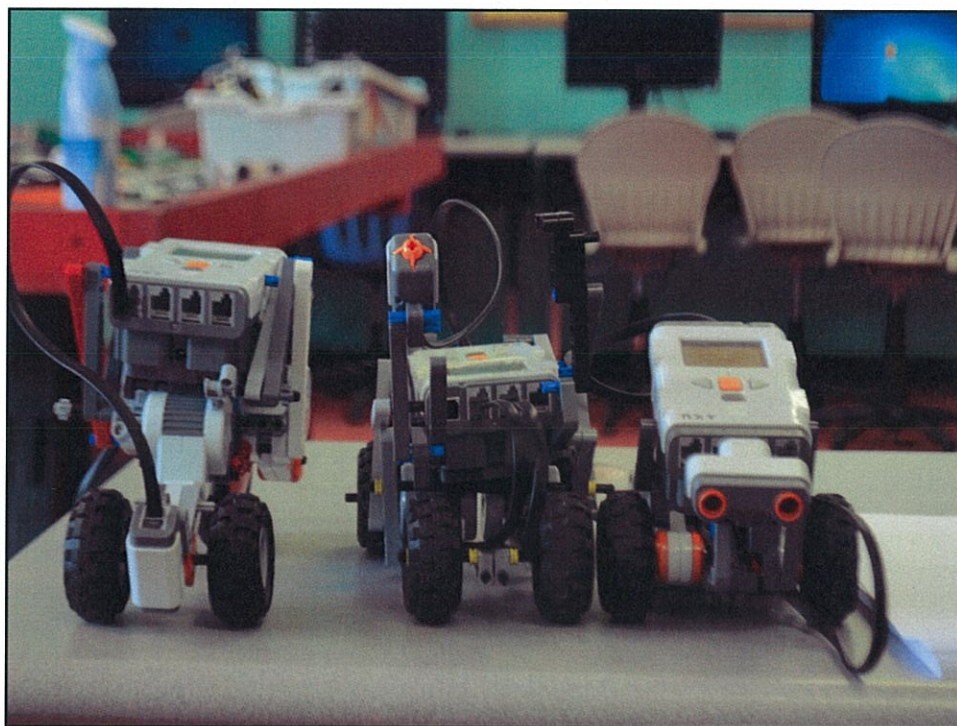
What is FIRST Robotics?

- FIRST: Foundation for Inspiration and Recognition of Science and Technology
- Goal: *"To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders."* -Dean Kamen, Founder
- Three Programs:
 - FIRST Lego League (FLL)
 - FIRST Tech Challenge (FTC)
 - FIRST Robotics Competition (FRC)

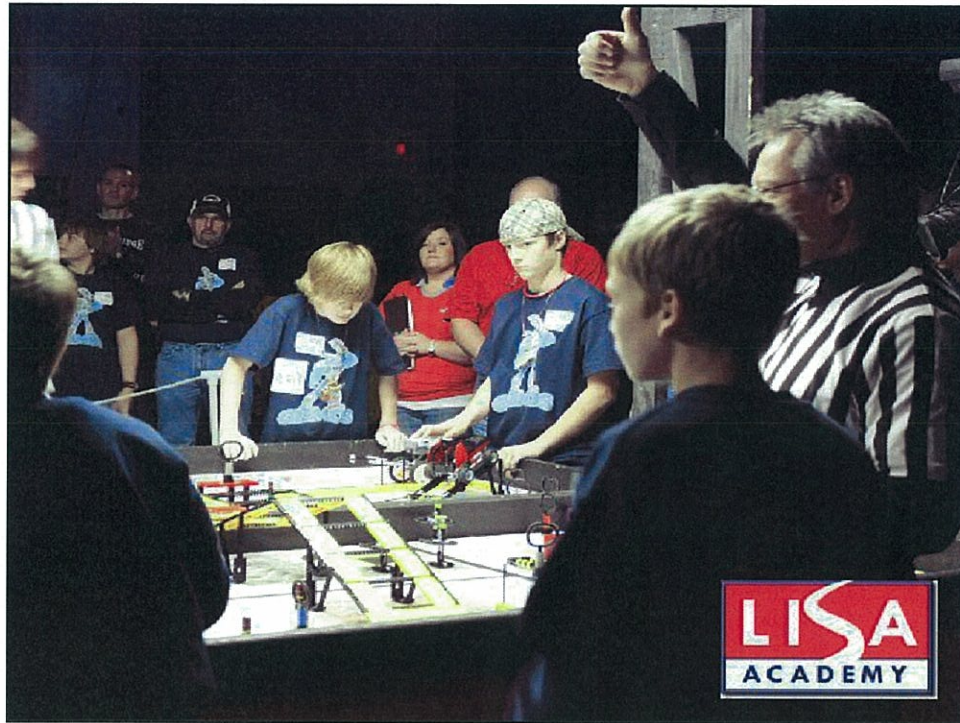
FIRST Lego League

- Introduction into FIRST Robotics
 - For students in 6th-8th grade
 - Robot is constructed entirely of Legos
 - Controlled by Lego Mindstorms NXT
- Students gain first experience with the robotics team dynamic
- Students also learn
- LISA has been involved in FLL for 6 years
 - We have attended several unofficial competitions, including one at ISWEEEP, an international science fair



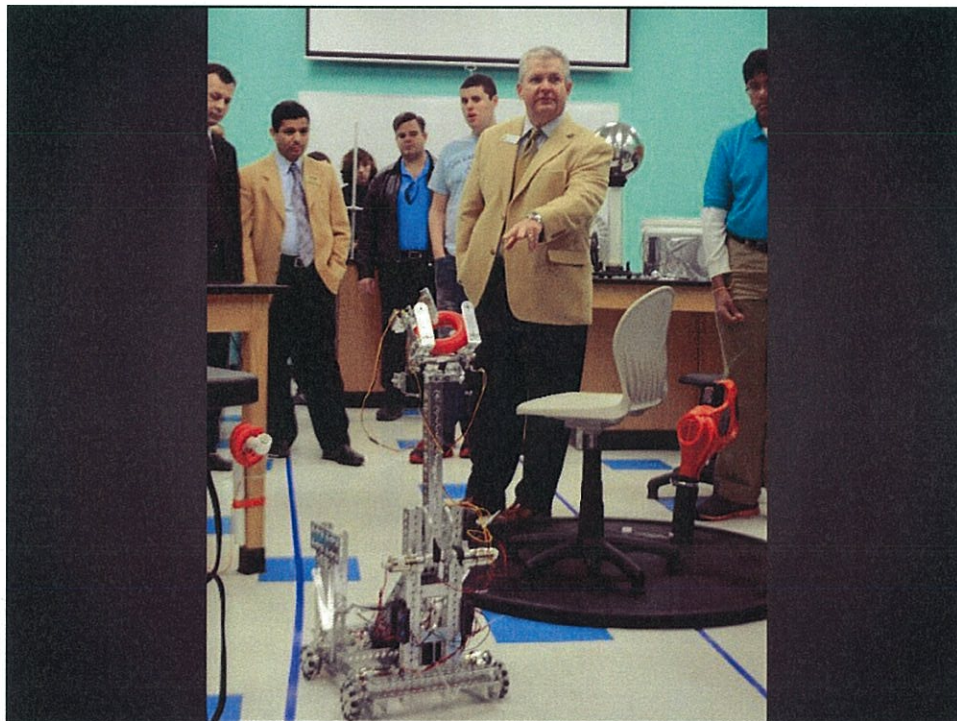






FIRST Tech Challenge

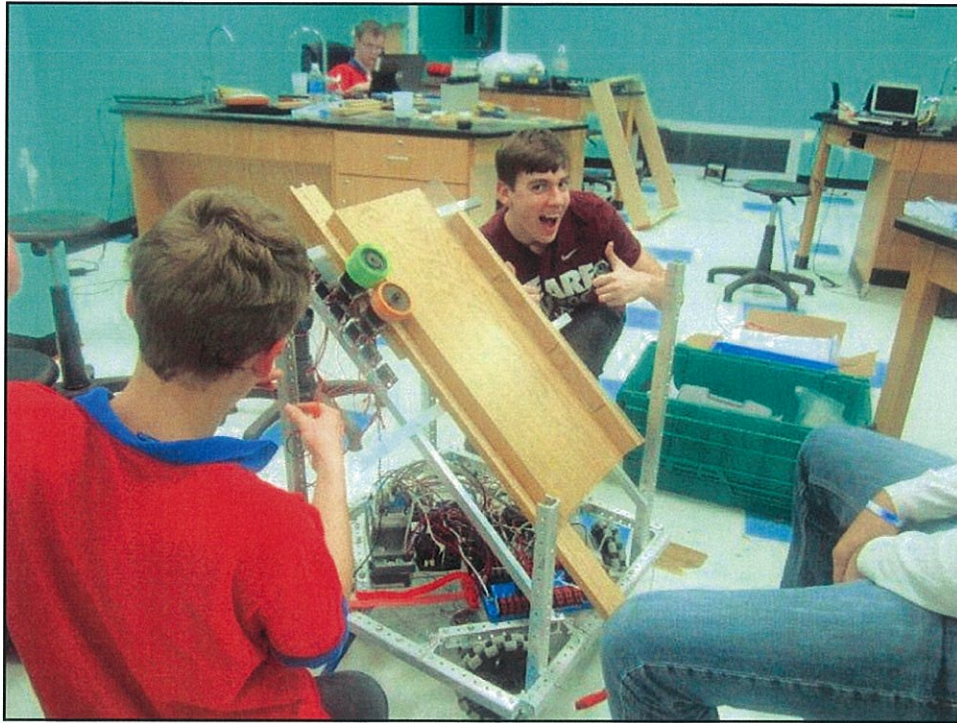
- The transition to building a robot from scratch
 - For students in middle and high school
 - Robot is constructed mostly from a kit of parts
 - Introduces Tele-op (human-controlled) period
- Students begin to find their individual department of interest (i.e. Programming, Build Team, Design, etc)
- FTC introduces cooperation between teams through alliance system
- LISA has been involved in FTC for 3 years

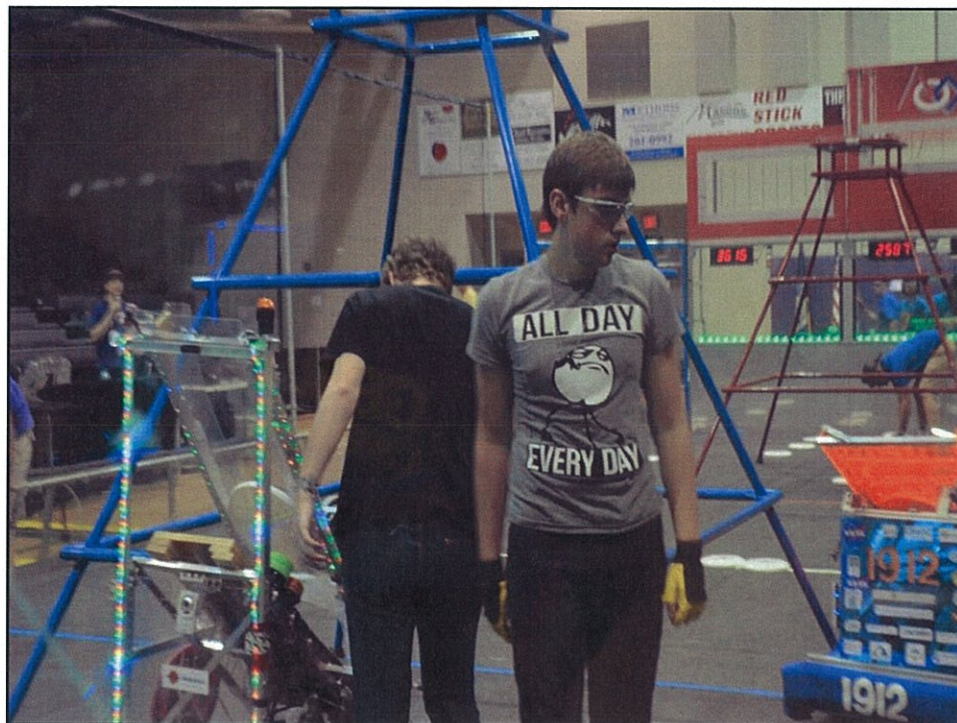


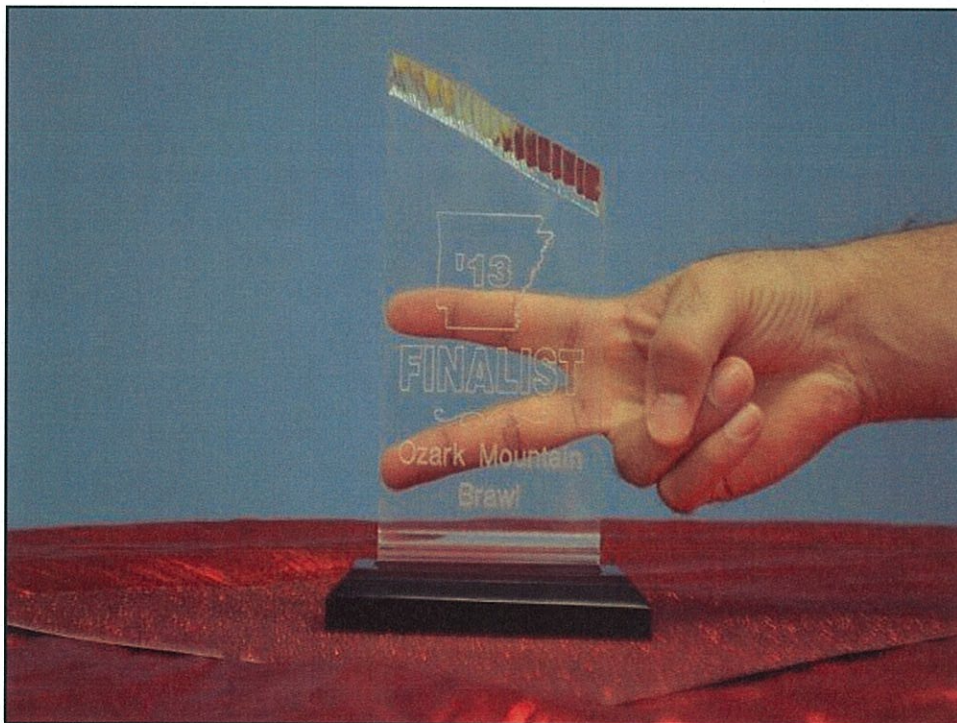
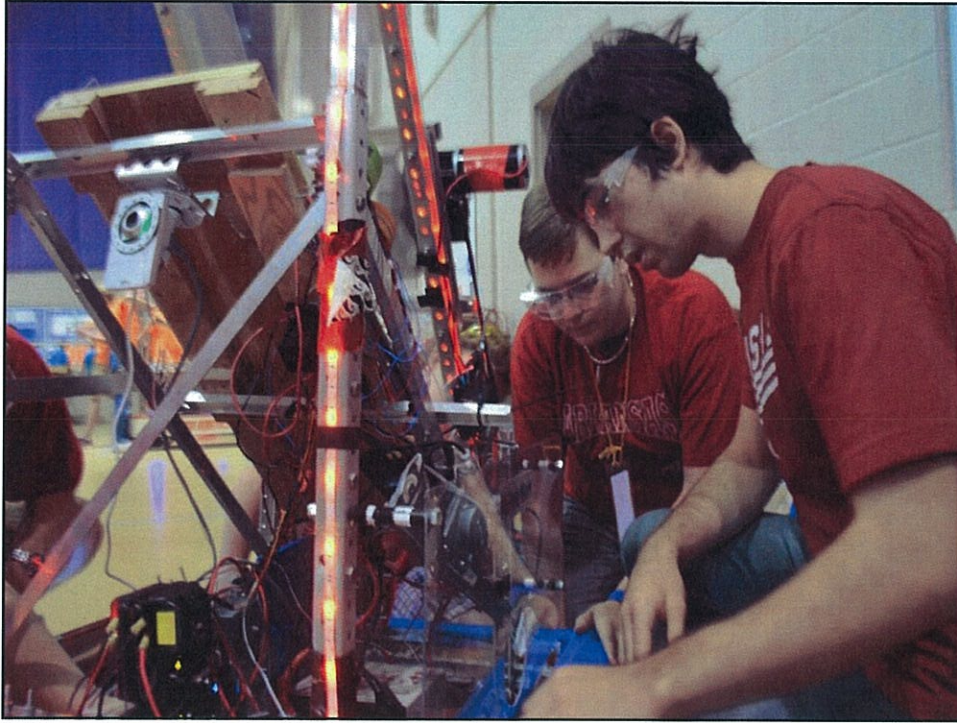


FIRST Robotics Competition

- The largest scale robotics competition
 - High school only, up to 120 lbs
 - Requires the most design
 - Students build the robot from parts they fabricate rather than a kit
- Students learn team organization as well as business management skills
- Students are introduced to real world tools used in industrial automation and other fields
- LISA has been involved in FRC for 3 years
 - We have also attended 2 unofficial competitions









Accomplishments

- 2nd at an FLL off season competition
- 2014 Arkansas FRC Judges Award
- 1st at the 2013 Red Stick Rumble in Louisiana
- 2nd at the Ozark Mountain Brawl in Springdale
- 2nd in the 2013 FTC Arkansas Regional
- Started a team at Jacksonville High School
- Last year our team helped put on a school level competition for a local elementary school