

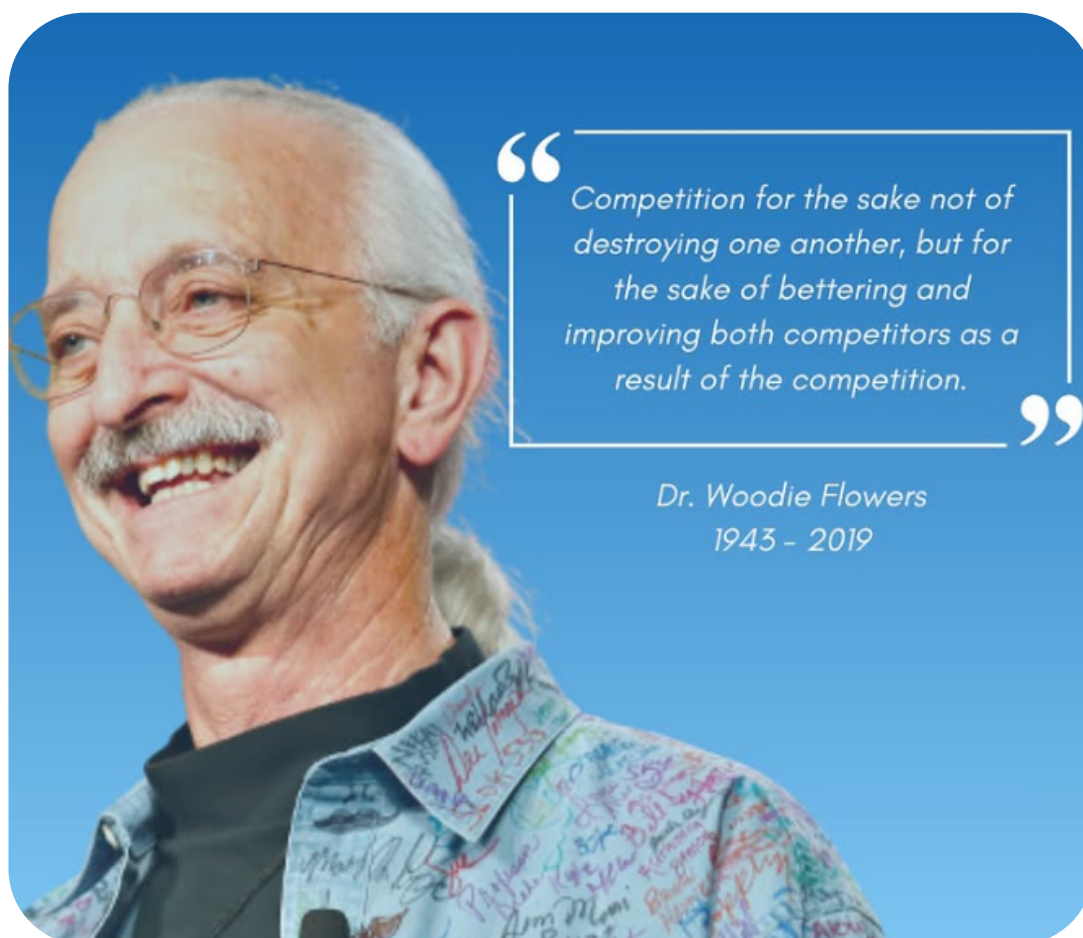
A wide-angle, high-angle photograph of a large indoor arena filled with people and robots. The arena is divided into several sections by barriers. In the background, there are large bleachers filled with spectators. The floor is a light-colored material, possibly wood or concrete. The overall atmosphere is busy and energetic.

Volunteering with KY FIRST® Robotics

An Introduction

Table of Contents

KY <i>FIRST</i> Robotics Overview.....	3
What is <i>FIRST</i> ®?.....	3
<i>FIRST</i> Programs.....	4
<i>FIRST</i> LEGO League.....	5
<i>FIRST</i> Tech Challenge.....	6
<i>FIRST</i> Robotics Competition.....	7
<i>FIRST</i> Seasons.....	8
Volunteering with KY <i>FIRST</i>	9
Volunteering at Events Overview.....	10
Volunteering at Events - Culture.....	11
Volunteering at FLL Events.....	12
Volunteering at FTC Events.....	13
Volunteering at FRC Events.....	14
Meet the Team.....	15



KY *FIRST* Robotics Overview

Organization Overview	
	KY <i>FIRST</i> Robotics is the Program Delivery Organization registered with <i>FIRST</i> Headquarters to support and deliver the <i>FIRST</i> succession of programs in the state. We do this by offering events, supporting teams, and working to grow new teams in the state.
Vision	
	To Inspire the next generation of problem solvers and leaders.
Mission	
	The mission of KY <i>FIRST</i> Robotics is to establish a robust and sustainable <i>FIRST</i> Robotics Program for PK-12 youth throughout the state of Kentucky. At the heart of this mission is our commitment to diversity, equity, and inclusion and the impact that early exposure to STEM learning can influence equitable outcomes for our future workforce.
History	
	Incorporated in 2019 as FTC in Kentucky, the nonprofit began with a single goal - have a sustainable qualifying FTC event in the state of Kentucky. In 2022, the small Board of Directors worked together to create on a vision to make it something more, and officially changed the name to KY <i>FIRST</i> Robotics and worked with <i>FIRST</i> Headquarters to become the official Program Delivery Organization (PDO) for <i>FIRST</i> programs in Kentucky. The Regional Directors for FRC and Program Delivery Partners for FTC are housed within KY <i>FIRST</i> Robotics. The Program Delivery Partners for FLL work through NKU's Center for Integrated Science and Mathematics (CINSAM), and are supported by KY <i>FIRST</i> Robotics.
Introduction to Volunteering to KY <i>FIRST</i> Robotics	
Video 	A introduction to Volunteering with <i>FIRST</i> has a lot of this same information, in a different delivery format. Click here to watch the video.

What is *FIRST*®?

FIRST is a robotics community that prepares young people for the future. As the world's leading youth-serving nonprofit advancing STEM education, *FIRST* is preparing a new generation of young people for the future through a suite of inclusive, team-based robotics programs for ages 4-18 (PreK-12). Founded by renowned inventor Dean Kamen in 1989, *FIRST* has reached more than 3.2 million+ youth participants in more than 100 countries over the past three decades.

Our programs are suitable for schools or structured afterschool activities and receive support from a vast network of volunteers, educators, and sponsors, including over 200 Fortune 500 companies. Because our programs are More Than Robots ®, *FIRST* participants are guided by a signature set of Core Values to conduct research, fundraise, design, build, and showcase their achievement through thrilling, sports-like challenges where they develop self-confidence and collaborative problem-solving skills.

For more than 30 years, *FIRST* has combined the rigor of STEM learning with the fun and excitement of traditional sports and the inspiration that comes from the community through programs that have a proven impact on learning, interest, and skill-building inside and outside of the classroom. Whether it is finding their people or finding their path, students gain the skills and confidence to forge ahead and build their future with *FIRST*.

FIRST creates the people who will change the world – today and tomorrow.

FIRST® Programs

FIRST LEGO League



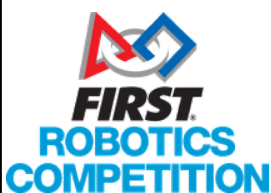
FIRST® LEGO® League (FLL) participants gain real-world problem-solving experiences through a guided, global robotics program, helping today's students and teachers build a better future together. *FIRST* LEGO League's three divisions inspire youth to experiment and grow their critical thinking, coding, and design skills through hands-on STEM learning and robotics centered around a yearly theme.

FIRST Tech Challenge



FIRST® Tech Challenge teams work together to design, build, and program a robot to play a themed competition challenge by brainstorming innovative ideas, exploring advanced engineering concepts, and developing career-ready practices.

FIRST Robotics Competition



FIRST® Robotics Competition combines the excitement of sport with the rigors of science and technology. Teams of students are challenged to design, build, and program industrial-size robots and compete for awards, while they also create a team identity, raise funds, hone teamwork skills, and advance respect and appreciation for STEM within the local community

FIRST® Programs

FIRST LEGO League (FLL)



FIRST LEGO League (FLL) is made up of three sub-programs. All three use LEGO components. To learn more about what FLL is, watch this [video](#).

FLL Discover



Grades
PreK-1

Ages 4-6

FLL Discover is for our youngest problem solvers. In this program they use LEGO Duplos and solve problems with their own creative designs.



FLL Explore



Grades
1-3

Ages 6-9

FLL Explore incorporates a LEGO robot that is built and programmed as a solution to a problem the students researched that relates to the theme.



FLL Challenge



Grades
4-8

Ages 10-14

This level challenges students to build and autonomously program a LEGO robot to solve multiple pre-built missions, as well as to solve a real-world problem around a theme.



FIRST® Programs

FIRST TECH CHALLENGE (FTC)



Grades 7-12

Ages 12-18

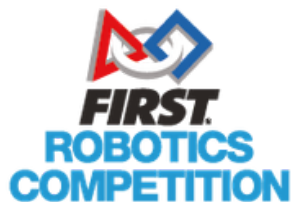
FIRST Tech Challenge Robots are built from various materials and programmed on an Android-based control system. To start, FTC robots are no larger than an 18" cube, though they may grow once the games begin. Games are played on a 12-foot square playing field in an alliance format, and matches are two and half minutes long, including 30-second autonomous period and 2 minutes of driver-controlled.

To learn more about FTC, watch this [video](#).



FIRST® Programs

FIRST Robotics Competition (FRC)



Grades 9-12

Ages 14-18

FIRST Robotics Competition is the ultimate sport for the mind. Starting with a Kit of Parts, teams of high school students design, program, and build industrial-sized robots to play an action-packed game. They compete on a themed field as part of a three-team alliance. In 360-degree learning guided by adult mentors, each FIRST Robotics Competition team also creates a team identity, raises funds to meet its goals, and advances appreciation for STEM in its community.

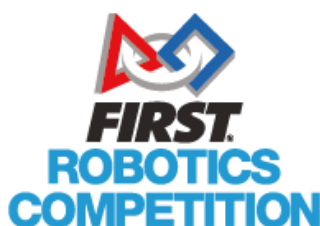
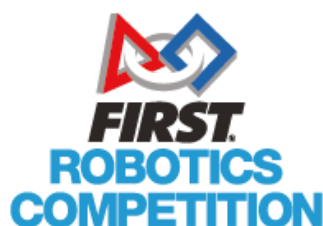
To learn more about FRC, watch this video.



Themes

All three programs are united by a theme that changes annually and is tied to real-world engineering challenges. Two examples are provided here, *FIRST* in Show highlighted the use of technology in the arts, and *FIRST* Dive encouraged students to explore the depths of the ocean.

Every season, a new game is released for all levels, centered on the season's theme. All will culminate in a World Festival in April. Kentucky teams attend events here in the state, vying for a spot at the World Championship or a Premier Event for their program. We host a Premier *FIRST* Tech Challenge event here in Kentucky, please ask us more about this!



PRESENTED BY AIAA5 Great Mass Foundation



PRESENTED BY RTX



Volunteering with KY *FIRST*®

Who we are:

We are the local program delivery organization for *FIRST* programs in Kentucky. We directly support FTC and FRC, including all events in the state. We support NKU's Center for Integrative Science and Mathematics (CINSAM) in delivering FLL in Kentucky. We partner with *FIRST* Headquarters to bring high quality games and events statewide. We need your help! We rely heavily on volunteers in many capacities and roles.

How you can help:



Coach or Mentor a Team! All teams need at least two adult coaches or mentors. Coaches and mentors come from all backgrounds and can provide technical help - building and programming robots, or non-technical help - organizing, administrating and providing logistics, transportation, and snacks.



Volunteer at an event! Our events need both technical and non-technical volunteers. We have roles both on and around the field where the robot action is, and behind the scenes where you can meet with the teams and learn about how they built their robot as well as their outreach. We also have supportive and administrative roles. We welcome all skill and experience levels.



Support our mission! You can work with us directly at KY *FIRST* Robotics to help us advance our mission and make *FIRST* LOUD in Kentucky! Help us bring this program to students throughout the state, and give all Kentuckians access to the ultimate sport for the mind.

Next Steps:



Visit www.firstinspires.org and create an account. The steps to completing the volunteer registration on the *FIRST* website can be found [here](#).



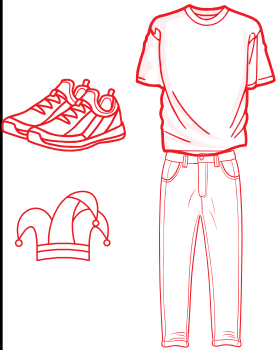
Email us and let us know of your interest in volunteering and how you want to help. We will work with you to find the role that best matches your interests and abilities.

Volunteering at Events

Sign up on your dashboard

Once your background check is complete, you will be able to log in to your portal and search for events to volunteer. You can sign up directly in your dashboard for a role that you would like (role descriptions start on page 12) or click “Assign As Needed” and we will help you determine the best role for your skills and abilities.

Event Information

Gracious Professionalism	All volunteers should extend <i>Gracious Professionalism</i> ® throughout the event. Events should be fun, even with high competitiveness!
	Training materials are available in your <i>FIRST</i> Dashboard. <i>FIRST</i> provides in-depth training for each role and manuals with many details; these are great resources! Those materials are intended as reference materials to use as needed; we will provide you with role-specific training for events in Kentucky.
Event Details 	Specific event details such as parking, entrance details and timeframes will be sent to you via email from us. Depending on your role, you may also receive more information via email from another Kentucky volunteer. When you arrive at the venue, follow signs to volunteer registration.
Hospitality 	We provide all volunteer meals and drinks/snacks throughout the day. If you have any dietary restrictions, please let us know so we can provide appropriate food.
What to wear 	You will want to wear comfortable pants and close-toed shoes. All volunteers will receive a KY <i>FIRST</i> Volunteer shirt with the season’s theme. Any role-specific items such as vests, referee shirts, hats, etc. will be provided to you. <i>FIRST</i> events ARE FUN!! These students work hard and events are where they get to celebrate the season. You are welcome to wear fun hats, ties, shoes, etc. – especially those volunteering on and around the field.
Safety Glasses 	All volunteers in the team pit areas or around the fields will need safety glasses or side shields added to your prescription frames. We will have some available to you, or you can bring your own.
	Please reach out to us with any questions at info@kyfirstrobotics.org . For each event, you will be provided with an event contact’s cell phone number.

Volunteering at Events - Event Culture

FIRST Culture	
Coopertition 	Coopertition® is a word that <i>FIRST</i> trademarked for <i>FIRST</i> competitions. It means that while they are competitive teams each looking to win, they do so with the best sportsmanship. If they see that another team is struggling and needs help, or needs a part, <i>FIRST</i> teams are encouraged to help one another. There is a culture of mentorship among teams, both at competitions and outside of competitions. If you see that a team has a need, let the Emcee know, an announcement will be made and watch the teams jump in to help one another.
How can I help? 	Events are fun!! They can also be stressful for students if things are not working the way they had hoped, or if they mis-read a rule and it affected their robot or their game play. Our role as volunteers is to help them work through that. While we do stick to the rules to help ensure fairness for all, we do our best to meet the students where they are and work to get them where they need to be. For example, if a robot does not pass inspection, we help provide advice, tools, help from other teams, whatever is needed so they can fix what they need to fix and can ultimately pass inspection.
Team Culture 	Teams are encouraged to create a team brand and promote their brand so they stand out at competition. This is seen in everything from the “uniforms” they choose, to their pit design, even their robot. You will see wide variations on this as brand new teams may not be aware of this, or had the time or resources to build the branding. All efforts are encouraged.
Team Numbers 	<i>FIRST</i> teams are identified by their numbers. They are also encouraged to come up with a team name and “brand”, but we identify them by their number - up to five digits. The number stays with a team forever. This means that lower numbered teams have had a coach, mentor, or group that has maintained that team for a long time. Higher numbers are newer teams. Generally speaking, those teams with higher numbers may need more assistance than the teams with lower numbers.
Inclusion 	<i>FIRST</i> is inclusive of all people. Teams and coaches are encouraged to welcome members from all backgrounds on their team. Some team members may need a break from the noise of competitions, or may need additional support from their teammates or volunteers. Teams that are seen providing helpful support to their own teammates and others should be shared with event administrators so they can be celebrated.

FIRST LEGO League (FLL) Event Roles

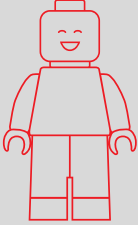
All Event Roles

You will have access to the *FIRST* training for all volunteer roles in your dashboard after you sign up for an FLL event. The manuals provided are a great resource. FLL will also provide training for specific roles at the event (or prior to the event, depending on the role). Detailed role descriptions can be found [here](#).

**Experience & Training Required

*Training Required

Event Role by Area

Around the Playing Table 	Assistant Scorekeeper FLL Scorekeeper** Field Manager** Emcee** Head Referee**	Field Resetter* Referee* Scorekeeper**
Meet the Teams 	Judge Advisor Assistant Judge* Judge Advisor** Pit Administrator	Judging Queuer Lead Judging Queuer* Pit Runner Practice Table Attendant
Production Team 	Event Photographer A/V Team	(These roles require technical expertise).
Additional Roles 	Concessions Crowd Control Floater Score Runner	Team Registration Volunteer Coordinator Volunteer Registration/Hospitality

FIRST Tech Challenge (FTC) Event Roles

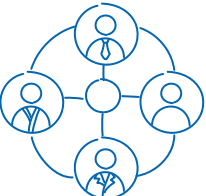
All Event Roles

You will have access to the *FIRST* training for all volunteer roles in your dashboard after you sign up for an FTC event. The manuals provided are a great resource. We will also provide training for specific roles at the event (or prior to the event, depending on the role). Detailed role descriptions can be found [here](#).

**Experience & Training Required

*Training Required

Event Role by Area

Around the Playing Field 	FTC Scoring Event Administrator** Head Referee** Referee* Field Supervisor* FIRST Technical Advisor (FTA)**	Lead Scorekeeper** Scorekeeper Field Resetter FTA Assistant
Meet the Teams 	Judge Advisor** Lead Robot Inspector** Lead Field Inspector** Judge* Robot Inspector* Control System Advisor**	Judge* Pit Administrator* Field Inspector* Lead Queuer* Queuer Judge Advisor Assistant
Production Team 	Emcee** Disc Jockey* Game Announcer**	A/V Team Video Crew Event Photographer (Technical Skills required for these roles)
Additional Roles 	Volunteer Coordinator** Accommodation Coordinator* Crowd Control Floater Load In/Load Out Crew*	Pit Runner Practice Field Attendant Team Registration Volunteer Check-In/Volunteer Support Wifi Technical Advisor*

FIRST Robotics Competition (FRC) Event Roles

All Event Roles

You will have access to the *FIRST* training for all volunteer roles in your dashboard after you sign up for an FRC event. The manuals provided are a great resource. We will also provide training for specific roles at the event (or prior to the event, depending on the role). Detailed role descriptions coming soon!

**Experience & Training Required

*Training Required

Event Role by Area

Around the Playing Field	FRC Scoring Event Administrator** Head Referee** Referee* Field Supervisor* FIRST Technical Advisor (FTA)**	Lead Scorekeeper** Scorekeeper Field Resetter FTA Assistant
Meet the Teams 	Judge Advisor** Lead Robot Inspector** Lead Field Inspector** Judge* Robot Inspector* Control System Advisor**	Judge* Pit Administrator* Field Inspector* Lead Queuer* Queuer Judge Advisor Assistant
Production Team 	Emcee** Disc Jockey* Game Announcer**	A/V Team Video Crew Event Photographer (Technical Skills required for these roles)
Additional Roles 	Volunteer Coordinator** Accommodation Coordinator* Crowd Control Floater Load In/Load Out Crew*	Pit Runner Practice Field Attendant Team Registration Volunteer Check-In/Volunteer Support Wifi Technical Advisor*