



TRIANGLE ROBOTICS LEAGUE

Dear supporters of technology education,

The Triangle Robotics League (TRL) is seeking assistance to continue our mission to support local STEM education programs in North Carolina's Research Triangle area. We are seeking sponsorship and volunteers for the 2020-2021 Vex Robotics Competition Season for our local league, consisting of 20+ participating member teams representing ~200 students per year in middle and high aged robotics programs in the NC Triangle area. TRL provides the opportunity for participating teams to attend mentoring sessions with learning seminars on various STEM topics, compete against one another within the league at multiple practice and ranking sessions and compete at the TRL Tournament for a chance to qualify to attend state, national and world level Vex Robotics Competitions.

TRL is now entering its 11th year of operation. After running as a school-run event for 8 years, in 2018 TRL began operating as an independent event under Classroom Worldwide, a 501c3 non-profit which strives to provide learning opportunities for students outside the traditional classroom setting. Our league is seeking volunteers and funding support this season to cover annual costs of operating the league, hosting the annual league tournament, purchasing annual game elements needed for the Vex Game for this upcoming year, and also to help defray or eliminate the costs for school teams to participate. Finally, with your support we will help new or existing schools add or retain their robotics teams through grants of starter and required upgrade kits.

Competitive robotics education: a powerful STEM education resource

Almost all business, technology and government leaders can agree there is a critical need for a qualified and educated workforce to meet the challenge of powering our increasingly technology-driven economy. Almost everyone involved in coaching, mentoring or supporting educational robotics can agree that there is perhaps no better way to interest, motivate, train and prepare our youth to meet this future challenge. Through competitive robotics, students learn to work in multidisciplinary teams to identify, analyze and solve real technical challenges. They learn to brainstorm, design, implement, test, and optimize structures, strategies and code. They learn budgeting, CAD, project management, programming, mechanics, electronics, presentation skills, problem solving, documentation practices, professional networking and many more real skills that will translate directly to their success in a competitive global economy. But perhaps the greatest impact of competitive robotics education lies not in the wide range of skills it imparts, but in the self-motivation and competitive drive it fosters in students to master new skills and overcome new challenges, and prove themselves on the field!

Please support continued robotics education by supporting TRL

In the 2019-2020 season TRL had 23 teams ranging from 4-10 students each, representing middle schools, high schools and independent teams from the NC Triangle area participating in the VEX Robotics Competition (VRC). VRC is the world's largest robotics competition with over 20,000 teams competing in over 60 countries and continues to quickly grow locally and world-wide. VEX encompasses a rigorous technical curriculum and a suite of standardized parts that provide a ready-made technical education course at comparatively low entry costs and high scalability for schools and community groups starting robotics education programs. TRL provides support and guidance for these new teams,

hosts workshops and training sessions, organizes practice and ranking matches, and hosts the annual TRL Tournament. TRL is the only group hosting local competitions for these teams.

While the need for technology education programs such as TRL has never been higher, this is a challenging time for our league and many of our member teams. TRL has operated for 10 years as an entirely self-funded, volunteer-run organization. Our league and our member teams have been supported primarily by the league's coaches and teachers, many of whom pay out of pocket to provide this opportunity to their students. Unfortunately, due to recent school district policy changes this model is no longer sustainable. Non-athletic, multi-county student events are now required to pay facility usage fees for holding weekend events at schools. These school rental fees exceed our entire budget, and are higher than market prices for non-school conference facilities. Due to this policy change, starting this past year we must rent an outside conference facility to hold our annual tournament. This is why your support is urgently needed to continue to help us continue to provide this educational opportunity for local students.

Making a difference in students' lives through STEM competition

The volunteers of TRL have seen firsthand the incredible impact of robotics education and competition on our students, often expressed by students themselves. We all have anecdotes of current and former students telling us things like "robotics was the highlight of my educational career", "I couldn't participate in sports so robotics was the first time I was ever on a team", "I know what I want to do in my life because of robotics", "I got a scholarship because of robotics", "winning the championship was the greatest moment of my life". And we have all seen graduating students go on to college and beyond extremely well equipped with both the technical problem solving acumen and team-competition honed soft skills needed for success in their future STEM careers.

Please help us not only continue to provide this opportunity, but work with us towards achieving our mission to foster and support inclusive, high level STEM education and competition by providing a support community and a competition league for teams in the NC Research Triangle area participating in the VEX Robotics Competition.

For more information about the Triangle Robotics League visit: trianglerobotics.weebly.com

Thank You!



The TRL Management Volunteers: John Wittenborn ((312) 519-5718 johnswittenborn@gmail.com),
Colleen Murray ((619) 869-2342 murraycm02@yahoo.com),
Amanda Fox at (405) 334-1923 aggiefoxes@sbcglobal.net

And the students, teachers, mentors and volunteers of the Triangle Robotics League!

Donations and Support

TRL is seeking sponsorship at varying levels to help continue and improve our league and the opportunities it affords our students. While we are thrilled to receive support in any amount, below we describe several donation packages that link your support directly to equipment, supplies and events that TRL needs to continue and grow this unique educational opportunity.

TRL SUPPORTER: \$100+

TRL Supporters will receive:

- a TRL t-shirt (pick-up at the TRL tournament)
- recognition on the TRL website

GAME SEASON SPONSORSHIP: ~\$1000 AS FINANCIAL OR EQUIPMENT DONATION

Game Season Sponsorship supports TRL purchasing 3 sets of field and game elements for this year's game to be unveiled at the VEX Robotics World Championship in April. TRL requires at three sets of game elements each season. Organizations providing Season Sponsorship will receive

- recognition on the TRL website and promotional materials,
- invitations to and recognition at TRL events, and
- a special Thank You incorporating game elements at the completion of the season.

TOURNAMENT SPONSORSHIP: ~\$1,500 AS FINANCIAL DONATION

An estimated 400 people attended the 2020 TRL tournament held at Wake Tech community college! Due to school district policies designed to maximize district revenue, schools are no longer allowed to host non-athletic weekend events such as robotics competitions without paying facility use fees. Tournament Sponsorship will allow TRL to rent an exciting public venue, such as a local science museum or university. The Tournament Sponsor will receive

- recognition on the TRL website and promotional materials,
- their logo included on volunteer t-shirts, signs and banners at the tournament and
- a special Thank You presentation at the tournament including award plaque and TRL logo t-shirts for visiting representatives.

LEAGUE SPONSORSHIP: ~\$3,500 AS A FINANCIAL DONATION

Our Premier Sponsorship Opportunity - League Sponsorship will support the operation of TRL including cost reimbursement for local host schools, equipment, t-shirt, trophy and food costs for the TRL tournament. League sponsorship will allow TRL to eliminate team registration fees! The TRL League sponsor will receive everything listed under Tournament Sponsorship plus:

TRL comes to you! Your staff and visitors will see the results of your support first-hand as TRL volunteers and students visit your facility or event and set up *a real robotics competition* for your staff, patrons or visitors! In this exciting attraction you will take control of one of our TriangleShooterBots in a scaled-down version of the VRC competition "Turning Point".

MATERIAL DONATION: TRL NEEDS THE FOLLOWING NON-ROBOTICS EQUIPMENT

19" monitors, monitor stands, 2-3 laptops, PA speakers, 6x12 enclosed trailer

LEAGUE VOLUNTEER: YOUR TIME, EXPERTISE, AND ENTHUSIASM!

Available TRL Volunteer Positions:

- Planning Committee Members
 - Tournament Coordinator
 - Outreach Coordinator
 - Graphic design/website
- Match Operations (ranking sessions and tournament, requires some training):
 - Tournament Manager
 - Assistant Referees
- Tournament Day Positions (no prior experience necessary)
 - Judges (scientists, technologists, engineers, instructors)
 - Match scorers (ages 13+)
 - Field reset crew (ages 8+)
 - Team Queue
 - Volunteer support/food
 - A/V system (PA and light set-up, match video streaming using VEX or other software)
- Workshop volunteer (provide instruction and hands-on help for teams at TRL workshops)
 - CAD expertise (such as AutoDesk Inventor or Fusion 360)
 - Project management and budgeting
 - Engineering design process, scientific notebooks
 - Design and building
 - Mechanical physics (gear ratios, levers, etc)
 - Programming (C++ or python)
 - Advanced robotics control (PID control, motion planning etc)

TRL volunteers receive one TRL Volunteer t-shirt or gift and our sincerest gratitude!

Triangle Robotics League Sponsorship Form

Business Name: _____

Contact Person: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: (_____) _____ Email: _____

Business Website: _____

(Please print or type so that we can accurately include your information)

Please make checks payable to: Classroom Worldwide – for Triangle robotics league

Federal EIN: 47-1839782 (registered 501c3)

Please mail to:

Classroom Worldwide – Triangle robotics league
Attn: Colleen Murray
2408 Trifle Lane
Wake Forest, NC 27587

Thank you for your support!

Student Contact: _____

Amount Donated: \$ _____ Check # _____ Cash _____

Material Donation: