FAQs For VEX IQ Teams

1) What is VEX IQ?
VEX IQ is an exciting robotics platform, which transforms STEM (Science, Technology, Engineering, and Mathematics) learning for young students. Participants snap together VEX IQ parts and build a simple, powerful robot to explore open-ended challenges, which are designed to enhance their STEM skills. Teams will love driving their robots in 60-second Teamwork Challenge matches and testing their skills in two optional 60-second Robot and Programming Challenges:

Teamwork Challenge: Driver Controlled – 2-team alliance working together to score points
Robot Skills Challenge: Driver Controlled – 1 team scoring the most points with 1 robot
Programming Skills Challenge: Autonomous Programming - 1 team with 1 robot scoring points

The VEX IQ Challenge also includes an **optional STEM Research Project.** Each season, teams explore a different STEM theme and its application to robotics. Teams identify and research a topic of interest and share their findings in a creative three-minute tournament presentation.

For more details on the **VEX IQ Challenge**, visit: http://www.vexrobotics.com/vexiq/iq-challenge
For a **VEX IQ Program Overview**, visit: http://www.vexrobotics.com/vexiq

2) What are the age ranges and team sizes for VEX IQ participants?
While VEX IQ is primarily designed for participants, ages 8-14, any student, enrolled in a school or who is home-schooled, up through and including middle school grade levels, is eligible to participate on a team.

There is no limit on team size, although at least two team members are strongly encouraged. For a teacher, a classroom can be a team! Or, keep the team size smaller and use the team registration discount (see #3 below) for additional teams in the same school/organization.

3) What is the cost for a team to get involved in VEX IQ?
- **Team Registration fee** is $100 for the first team from a school or organization. The fee is only $50 for each additional team registration from the same school or local organization. **For team registration,** visit: http://www.robotevents.com/robot-competitions/vex-iq-challenge
- **Tournament registration fees** are set by the event partner, typically $25-75 per team for local events and more for championship events. Teams can participate in multiple qualifying events.
- **VEX IQ robot kits** are affordably priced at $249.99 for a Starter Kit with Controller or the Starter Kit with Sensors. The Super Kit, with a Controller and 7 Sensors, is priced at $299.99.
- **Snap Together Portable Game Fields** are available as a full field at $199.98 or a half field at $99.99.
- **Field and Game Elements** are available, starting at $24.99.

For VEX IQ product information, visit http://www.vexrobotics.com/vexiq/products

4) How do teams use the Engineering Notebook in VEX IQ?
Teams can use the new Engineering Notebook, which will be included with their annual team registration, to develop a better understanding of the engineering design process and document their learning in VEX IQ. The notebook also serves as a historical guide of lessons learned and best practices.

5) What curriculum options are available to VEX IQ teams?
Free VEX IQ curriculum is in development for students in grades 2-8. Prescriptive lessons and open-ended challenges will be available soon at: http://www.vexrobotics.com/vexiq/education. These units are mapped to Next Generation Science Standards (www.nextgenscience.org/), Standards for Technological Literacy (www.iteea.org/TAA/Publications/TAA_Publications.html), and Common Core Mathematics Standards (www.corestandards.org/). Each unit includes printable student handouts and exercises, rubrics, lesson plans, and other teacher materials.

Project Lead The Way is expanding its affordable curriculum offerings to the elementary school level fall, 2014. Carnegie Mellon Robotics Academy is also developing affordable lessons/curriculum that accompanies the use of RobotC Programming software for VEX IQ, which will be available in fall, 2013.

6) What programming software does VEX IQ use?
- **Programming**: Free graphical programming software, powered by Modkit, allows for custom robot commands, sensor interaction and more. For more details, visit: http://www.modk.it/
- **Design**: The free VEX Assembler, by Autodesk 123D, allows students to assemble and test VEX IQ robots virtually. For details, visit: http://www.vexrobotics.com/vexiq/vexassembler
- **Programming**: Affordable ROBOTC for VEX IQ, supported by Carnegie Mellon Robotics Academy, allows robot programming in C. For a free trial download, visit: http://www.robotc.net/

7) How do I prepare my team to participate in the VEX IQ season?
- **You don't have to be an engineer! Let the students do the work and become the experts!**
- **Select a team name.** Have fun and also choose a logo, team colors, and team motto.
- **Register your team:** http://www.robotevents.com/robot-competitions/vex-iq-challenge
- **Coordinate informational meetings** with parents and educators to build the foundation for the team. Establish roles for supporters, such as a snack provider, photographer, or fundraising lead.
- **Raise funds.** Apply for grants, seek local sponsors, and organize fundraising activities.
- **Order materials.** Start with the basics and add what you need, as the season develops.
- **Set up a schedule** for regular meetings, with goals to keep the team organized. Meeting schedules vary with each team, but it's best to limit each meeting time to about 2 hours.
- **Teambuilding:** Coordinate regular team building activities at your meetings, determine team roles or jobs, and develop a plan for the team to work together, learn, and have fun!
- **Register for events:** http://www.robotevents.com/robot-competitions/vex-iq-challenge. Teams can participate in as many local/qualifying events as they can afford or choose!
- **Use the resources in (#8) to support your efforts.**
- **Have fun!** Learning should be fun for everyone involved!

8) What resources and support are available for teams and coaches?
- **VEX IQ Challenge**: This site contains more Challenge details in the Game Manual and STEM Research Project document. Visit: http://www.vexrobotics.com/vexiq/iq-challenge
- **VEX IQ Forum**: A place to post questions or find answers about programming, rules, parts, and general inquiries. There are two forums—one to ask other teams, and another to ask our staff. Visit: http://www.vexforum.com/forumdisplay.php?f=393
- **Regional Support Managers**: Designated REC Foundation staff oversee VEX programs in your state or region and can direct you to resources. For the contact information for your Regional Support Manager, visit this site: http://www.roboticseducation.org/contact-us/.
- **VEX IQ Support Line:** If you've reviewed these resources, and still have questions, call the VEX IQ Support Line. The number is toll-free: **888-760-1933**.
- **VEX IQ Support Email:** Rosemary Smith: rosemary_smith@roboticseducation.org