

The Robotics Education & Competition Foundation

The Robotics Education & Competition (REC) Foundation seeks to increase student interest and involvement in science, technology, engineering and mathematics (STEM) by engaging students in hands-on sustainable and affordable curriculum-based robotics engineering programs across the U.S. and internationally. The REC Foundation develops partnerships with K-12 education, higher education, government, industry, and the non-profit community to achieve this goal.

The REC Foundation's vision is to change the world by inspiring young people in all communities to pursue degrees and careers in STEM fields by providing access to high-quality programs.

Our regional support staff utilizes online resources, curriculum, and program offerings to support robotics and technology events and initiatives that aim to inspire and motivate students to excel in STEM education. In addition to operating and supporting the VEX Robotics Competition, VEX IQ Challenge, and VEX U programs, the REC Foundation also provides program support and workshops focused on the use of technology in the classroom and professional development for education professionals. The REC Foundation is a US-registered 501(c)(3) non-profit educational organization.

VEX Robotics, a subsidiary of Innovation First International, Inc., manufactures robot kits and distributes game components for various VEX programs. Parts can be purchased from VEX at vexrobotics.com. Event Partners (EPs) use robotevents.com to create and manage events. VEX Robotics and the REC Foundation share the vexforum.com, which can be used for both technical support from VEX and for information regarding VEX programs. The forum also hosts official Question and Answer resources for VEX teams.

VEX IQ Challenge

The VEX IQ Challenge, presented by the Robotics Education & Competition Foundation, provides elementary and middle school students with exciting, open-ended robotics and research project challenges that enhance their science, technology, engineering, and mathematics (STEM) skills through hands-on, student-centered learning. The VEX IQ Challenge fosters student development of the teamwork, critical thinking, project management, and communication skills required to prepare them to become the next generation of innovators and problem solvers. The VEX IQ Challenge consists of the following:

- **Teamwork Challenge:** An alliance of two teams and their robots collaborate to score as many points as possible in 60-second driver-controlled matches. This is the only required component of VEX IQ events.
- **Robot Skills Challenge:** Sum of the highest Driving Skills and Programming Skills scores at an event.
 - **Driving Skills:** One team and one robot score the most points possible under driver control.
 - **Programming Skills:** One robot scores the most points autonomously (without Driver control).
- **Engineering Notebook:** Documents the team's robot design process.
- **STEM Research Project:** Teams research a topic of their choice that is related to the STEM theme for the season and share their findings with Judges in a 4-minute video presentation.

For more VEX IQ Challenge details, visit: RoboticsEducation.org/competition-teams/vex-iq-challenge/.

Event Partners

Event Partners (EPs) are the core of VEX Competition programs. It is their passion and involvement that grow and sustain the events and in many cases even the teams themselves. The role of an EP is to deliver competition opportunities in their region.

The EP acts as the coordinator and organizer of VEX Competition events. The EP is the leader who acts as the liaison between the REC Foundation and the key volunteers that keeps things moving. The primary tasks are date and site selection, budget, volunteer recruiting and management, volunteer training, team communication, event execution, results, and follow-up.

Event Types

RobotEvents.com includes four types of events:

- **Tournament:** Usually a one-day event that includes Teamwork Challenge and Judging and that may include Robot Skills Challenge. This is the most common event type.
- **League:** A multi-session event that includes Teamwork Challenge and Judging and that may include Robot Skills Challenge.
- **Scrimmage:** An unofficial event that usually includes Teamwork Challenge and that may include Robot Skills Challenge.
- **Workshop:** a meeting of individuals or teams.

Official Events and Qualifying Criteria

Official Events qualify teams for advancement to a regional/state championship or to VEX Worlds. Tournaments, Leagues and Skills Challenge Only events that meet the requirements specified in the **Qualifying Criteria** may be designated as Official Events by the Regional Support Manager. The **Qualifying Criteria** are available at: http://link.roboticseducation.org/vexiq_qualifyingcriteria2018-19

Restricted Events

Generally speaking, VEX IQ Challenge events are open to any registered VEX IQ Challenge team, but there are some situations for which you might want to run a restricted event, only open to certain teams. **Any restrictions on registration other than those listed below must be approved by the REC Foundation in advance, so please contact your Regional Support Manager.**

Here are the REC Foundation guidelines for restricted events:

- Regional championships may require performance-based qualifications. For example, the US National Championship has entry criteria that require teams to win certain awards at other events before registering for the event.
- Tournaments and leagues may be restricted to elementary school teams. Generally, tournaments and leagues may not exclude elementary school teams unless there are sufficient elementary school events in the local area. Consult your Regional Support Manager for help with this if you have any questions.
- Leagues may restrict the number of league sessions in which each team may participate. For example, a league may have six sessions, but restrict each team to playing in only five sessions. Please refer to the League Play rules for more-detailed rules and procedures.
- Tournaments held for an entire school district, or the “home” teams. Event Partners may only host one of these events per season, as long as they host another event, of equal size or greater that is open to all REC Foundation registered teams.
- If you restrict an event for any reason other than those above, it may not be an official event. The REC Foundation reserves the right to evaluate your qualifying criteria for restricted events.
- Unofficial events may be restricted based on criteria set by the Event Partner. However, we encourage EPs to restrict events only in logical ways (such as within a school district, for a particular city, teams all sponsored by one source, or those teams part of a special program such as Scouts or 4H).

Event Partner Access to Online Resources

Follow these steps for access to our online resources for Event Partners:

- Register an account on RobotEvents.com.
 - Go to <http://www.robotevents.com>.
 - Click on “**Register**” (top right-hand corner of the screen).
 - In the **Register** window, fill in your name, Email Address, Password and Country.
 - Click on “**Register**”
 - Click on “**My Account**” (top right-hand side of the screen).
You should see the “**Welcome, <Your Name>**” (Dashboard) screen.
 - Click on “**Address Book**” on the left side of the screen
 - Click on “**Add New Address**”.
 - In the Address Editor window, enter your Phone (preferably mobile) and Address.
 - Choose to use this as your default billing and/or shipping address.
 - Click on “**Save**”
 - If your Shipping Address is different from your Billing Address, you can repeat the previous four steps to add your Shipping Address.
- Send your Regional Support Manager the email address that you used to register on RobotEvents.com and request EP access.
 - EPs can find their Regional Support Manager by using the contact information on RobotEvents.com/support.
- Your Regional Support Manager will give your user account EP access and let you know when you can log into the system as an Event Partner.
- Go to vexiqforum.com and create a user account. Send your user name to your Regional Support Manager and request access to the restricted Event Partner discussion forums.

Logging in as an Event Partner

To log into RobotEvents.com as an Event Partner.

- Go to RobotEvents.com.
- Enter your RobotEvents.com email and password.
- Click on “**Login**” and then click on “**Administration**”
- You now have EP access to “**Products**”, “**Events**” and “**Teams**”

Creating an Event

A tutorial showing how to post an event on RobotEvents.com is available at:

<http://www.roboticseducation.org/documents/2016/08/posting-an-event-in-robotevents-com.ppsx>

To create an event, follow these steps. *(If you have an event from last season that you would like to copy and simply edit the dates and other information for this season, you can copy the event from the Event Links from the Edit page of the event you are copying.)*

- Log into RobotEvents.com as an Event Partner.
- Click on “**Events**” on the upper left side of the screen.
You will see your future event(s) or “**No events to show**”.
- Click on “**+ New Event**”
- Select “**Program / Season**” and “**Event Type**”
- Click on “**Next**”

New Event Page

- **Event Name***: Select an event name that will uniquely identify your event. This is how the event will appear in RobotEvents.com. Be creative. Try to sell the event. The three most commonly used designations for an event are “**Tournament**,” “**Challenge**,” or “**Competition**,” (ex: City VEX IQ Challenge). The program (VEX IQ), type of event (scrimmage, skills-only, tournament, league), and unusual restrictions (elementary school) will be listed on the event page, but you can also make these designations as part of the event name. Avoid the use of the word “Championship” in your event name, as those are reserved for State, Regional, Provincial, National, and World Championship events. Please contact the Regional Support Manager for questions on how you can best name your event if you are unsure.
- **Event Capacity***: Enter the total team capacity for your event. We encourage larger events to hold back some spots for new teams that register during the year. If you plan to host a 32-team event, then set the initial event capacity to 28 spots, so that you can fill the last 4 spots closer to the event. The waiting list will allow you to determine the order that teams asked to be added.
- **Max Teams per Organization**: Select the number of teams per school, club, or organization that will be allowed to register for the event. Some EPs want to ensure that the largest possible number of schools/clubs attend and set this to a limit value so that no one school has too many teams at the event. Be sure to check the Qualifying Criteria document for the maximum percentage of teams allowed from an organization, and set your Max Teams per Organization accordingly, at least to this limit.
- **TSA Teams Only?**: Check “No” unless this is a Technology Student Association event.
- **Grade Level ***: Select the appropriate grade level for the event (“**All**” is typically chosen).
- **Robot Skills Challenge Offered**: Change from “No” to “Yes” if you are offering the “**Driving Skills**” and “**Programming Skills**” Challenges.
- **Event Dates**: Enter the beginning and ending dates for your event. **Event Start Date *** and **Event End Date *** will be the same for a one-day event. For a League, enter the dates for the first session. The dates and venues for other sessions will be entered later, by clicking the **Add Dates** button in the right column.

- **Release Date** is the date and time when teams can see your event on RobotEvents.com. Unless your Regional Support Manager tells you otherwise, it is best to make this one week later than today's date to allow time for your event to be reviewed and updated. After your event is approved, you can reset this date earlier, if desired. The event will not be released until the event is approved by your Regional Support Manager, even if it is past the Release Date.
- **Registration Opens** is the first date and time teams can register for your event. This date should be on or after the Release Date and must be at least eight weeks before the Start Date for official events.
- **Registration Closes** is the last date and time teams can register for your event. This date is usually one week earlier than the Start Date. Avoid making the date too early as teams frequently register in the last 4-8 weeks before an event.
- It is important to remember that the Release Date, Registration Opens, and Registration Closes times are set using Eastern Standard Time. You may wish to set your time according to your location.
- The table at right lists common release times for time zones within the United States. You may use this to select the appropriate release time for your event. This will prevent mentors from having to register at odd times of the day or night.

Common Release Times for U.S. Time Zones				
Eastern	Central	Mountain	Pacific	Hawaii
12 a.m.	11 p.m. (previous day)	10 p.m. (previous day)	9 p.m. (previous day)	6 p.m. (previous day)
8 a.m.	7 a.m.	6 a.m.	5 a.m.	2 a.m.
9 a.m.	8 a.m.	7 a.m.	6 a.m.	3 a.m.
10 a.m.	9 a.m.	8 a.m.	7 a.m.	4 a.m.
11 a.m.	10 a.m.	9 a.m.	8 a.m.	5 a.m.
2 p.m.	1 p.m.	12 p.m.	11 a.m.	8 a.m.

Note: The default is 12 a.m. Eastern Time.

Venue

- The **Lookup** function will locate a venue and enter the required information in the fields below. You may enter a school name or other venue. Entering a city after the venue name will help find commonly used names such as Washington High School. Using the **Lookup** function ensures that the Latitude and Longitude are filled in correctly so that your event will appear on the Competition & Teams Map.
- Adjust the Venue Information if needed:
Venue/Location *, **Address**, **City ***, **State/Province/Region**, **Postal Code** and **Country ***
If the address is incomplete or unrecognized, the Latitude and Longitude fields will be blank, and your event will not appear on the Competition & Teams Map.
- Click **“Save”**.

Event Page

You will be taken to the **Event** page, which displays the Event Code and TM Code assigned to your new event. Use the **Event Dates/Venue** window and the **Event** window on the right side of the page to navigate through the remaining pages where information must be entered for your event. Each item in the **Event** window will have a green check mark when the required information is entered. Items with a red X require additional information to be entered. These pages are laid out similar to the way teams will see them in RobotEvents.com. Mandatory fields have asterisks in the field names. The following sections will walk you through the steps for entering information about your event in each page:

Event Dates/Venue Window

This window near the top right-hand corner of your screen displays the event dates for the sessions that you have entered for your event.

To enter each additional League session:

- Click on the green **+ New Date** button.
- Enter the **Start Date** and **End Date** for the session
- Enter the **Venue** information for the session as you did for the first session above
- Click on **Save**

Edit Event Information Page

Use this page to edit the event information that was entered in the **New Event Page** above (excluding the event dates and venue information).

Documents & Image Uploads Page

- You may upload documents that you would like to make available to teams in this window. This could include Maps, information about sponsors or team or other resources.
- Please note that the Participant Consent Form, Inspection Checklist and “Tips for Teams to Prepare for VEX IQ Challenge Events” will be uploaded automatically and do not need to be added again.

Contact Information Page

- **Primary Contact Name ***: The name and contact information for the person teams should contact if they have questions about the event. This should be the Event Partner or other adult.
- **Primary Contact Email ***: The email address where you want to receive your communications from teams that have questions.
- **Primary Contact Title**: Optional title that can be added. This will usually be “**Event Partner**”.
- **Primary Contact Phone ***: Required, telephone number for teams to reach the primary contact.
- **Primary Contact Event Day Phone**: Telephone number for teams to reach the primary contact on the event day. This should be a mobile or other number that may be called the morning of the event.
- **Secondary Contact Name ***: The name and contact information for the backup person teams should contact if they have questions about the event. This should be different from the primary contact.
- **Secondary Contact Email ***: The secondary email address where you want to receive your communications from teams that have questions.
- **Secondary Contact Title**: Optional title that can be added. This will usually be “**Secondary Contact**”.
- **Secondary Contact Phone ***: Required, telephone number for teams to reach the Secondary Contact.
- **Secondary Contact Event Day Phone**: Telephone number for teams to reach the Secondary contact on the event day. This should be a cell or other number that may be called the morning of the event.
- **Additional Contact Information**: Any additional contact information for teams.
- **Event Registration Email Body ***: This required email is sent automatically to a team that registers. Welcome teams and include any important information that you want them to see.

Content Blocks Page

The **Content Blocks** page allows you to navigate through the event content blocks (tabs). Select each content block by clicking the “+Add” or “Edit” button in the **Action** column to open the desired content block.

General Info * Tab

Use this tab to enter general information about your event. **Include a “welcome” and overall “sales pitch” for your event.**

Agenda * Tab

Use this tab to list an agenda for the day (see **Sample Agenda** at right). This will allow teams to arrange transportation and other needs. It will allow families to plan for your event.

Sample Agenda	
8:00 AM	Team Check-in, Inspections, Project Presentations
8:30 AM	Project Presentations and Inspections
9:15 AM	Team Meeting
9:30 AM	Robot Challenge Matches and Judging
11:30 AM	Lunch
12:30 PM	Robot Challenge Matches and Judging
2:15 PM	Announcement of Finals Match Schedule
2:30 PM	Finals Matches and Awards
3:30 PM	Team Pits Close

Volunteer * Tab

Use this tab to ask teams and others to step up and help. Be sure to include the name and contact information for the person coordinating your volunteers. Enter information for potential event volunteers here, such as volunteer parking, and meals.

Emergency/Bad Weather Policy * Tab

Use this tab to let teams know your policy if bad weather or some other emergency requires you to cancel an event scheduled for a particular date. In certain areas this may be due to snow, hurricane, severe storms or other acts of nature. The Event Partner should always consider the health and safety of teams when deciding to hold an event when bad weather may become an issue. Be sure to include information on how you will contact teams if an event must be postponed.

Refund Policy * Tab

Use this tab to tell teams your refund policy if a team tells you that they will no longer be attending. Be clear as to whether or not refunds will be given and the deadlines and circumstances under which they may be given. Explain that Event Partners incur set costs. Refunds should be explained for when you need to cancel the event (due to your Bad Weather Policy) and for teams that can no longer attend.

A common Refund Policy is as follows.

Full Refunds will be issued if the event needs to be cancelled for any reason. Other than in the case of an event cancellation, full refunds will only be given to teams that cancel more than 21 days prior to the event, after which time, no refunds will be given.

Travel Info Tab

Use this tab to promote any hotels that are providing discounted room rates for your event. If you do not post hotel recommendations, it is helpful to provide contact information for someone who can help teams locate a suitable place to stay.

Webcast Tab

If you are planning to Webcast your event, enter the URL here. There are also settings in Tournament Manager for broadcasting results (see the Tournament Manager documentation).

User-defined Tabs

Create new tabs by clicking on the green “+ New Tab” button on the Content Blocks page.

Pricing Page

- **Hide Price?:** Some partners want to announce pricing on their own site or other resource. This is an unusual choice, so most events will select “No”.
- **Is Free?:** Most events will select “No”. If you make the event free by selecting “Yes”, make sure the price is set to zero. Both options are presented for events where the price is not set yet: you can let teams know the event isn’t free, but there is no price yet, by selecting “No”.
- **Event Registration Pricing *:** Entry fee for teams to participate in your event. Enter “0” if free. Enter the price in the first event field identified as “USD” if you use the online payment system. If your event is completely outside the US (as in Canada, Mexico, Europe, Great Britain, China or New Zealand), enter the price in your currency.

Event Partner Payment Address Page

- **Payee name:** This is the name that will appear as “Pay to the order of” on a payment check from the REC Foundation.
- **Name/Organization *:** This is the name of the individual, school or organization hosting the event. It is the name that will appear on the mailing address where a payment check will be mailed.
- **Address Line 1 *:** This is the street address or PO Box where payment checks will be mailed.
- **Address Line 2:** This is a second line available for routing of mail.
- **City *:** This is the city where a payment check will be mailed.
- **State / Province *:** This is the State/Province where a payment check will be mailed.
- **Zip / Postal Code *:** This is the Zip/Postal code where a payment check will be mailed.
- **Country *:** This is the country where a payment check will be mailed.

Qualification Levels Page

Qualifications Required: This Yes/No field allows an Event Partner to indicate if qualification is required. This field should be left at the default value of No for all events except region championships, state championships, open championships, and VEX Worlds. When set to Yes, only teams that qualify into the event, or those invited from the Wait List will be able to register.

Awards Page

- Use the pull-down menu to select the awards you will offer at your event. The Qualifying Events Trophy Pack is shown at right. **Please note that there are only seven trophies with nine plates.** If you choose to offer more than seven awards, you can purchase additional trophies. All awards can also be printed on award certificates using Tournament Manager.
- If your event qualifies to a state/provincial/regional event, your Regional Support Manager will identify the number of qualifying spots that move forward and the system will enter the mandatory awards based on the qualification system.

Qualifying Events Trophy Pack	
Plates	Awards
2	Excellence Award
2	Teamwork Champions Award
1	Design Award
1	STEM Research Project Award
1	Robot Skills Award
1	Judges Award
1	Volunteer of the Year

Award Winners Page

You can use this tab to manually enter award winners. This should not be necessary if the awards were uploaded from Tournament Manager at the conclusion of your event.

Awards Finalization Page

Finalize Awards: This field should be left at the default value of “**No.**” The system changes the value to “**Yes**” if you choose to finalize when awards and results are uploaded from Tournament Manager. You can reset the value to “**No**” if you need to upload results again later, e.g. for each league session.

Additional Award Text: Optional text to display below the list of awards.

Survey Page

- This optional tab allows you to survey teams that will attend your event. It allows you to collect any information you may need. Click the green “**+New Question**” button to create a survey question.
- You might want to ask questions such as:
 - How many people in your group will be attending?
 - How many people in your group will be using our lunch services?
 - When will your team arrive?
 - Do you have anyone with your group that needs special accommodations?
 - Will your team be bringing an Engineering Notebook for Design Award judging?
 - Will your team be presenting a STEM Research Project?

Event Administrators Page

This page allows you to select additional Event Partners who may be helping you with your event to give them administrative privileges for your event on RobotEvents.com.

Registered Teams/Individuals Page

- This page allows you to see the teams (individuals for some workshops) registered for your event.
- It shows the **Paid Status** of each team as “**paid**” or “**pending**”.
- You can add teams to your event using the green “**+Add Team**” button in the upper right of the screen.
- You can use the orange “**Mark Paid**” button to change Paid Status of a team from “**pending**” to “**paid**”.

Waiting List Page

- This page allows you to see the teams on the Waiting List for your event.
- It shows the date the teams were added to the list.
- You may add teams to your waiting list using the green “**+Add Team**” button in the upper right portion of the screen.

New Event is Complete

Once you have completed filling out all fields, be sure to contact your Regional Support Manager, so you're your event can be reviewed and approved for posting on RobotEvents.com.

Event Links Page

This page is listed at the top of the Event window on the right side of the screen. This page contains links to the following information and downloads:

- Registered Teams
- Qualifying Teams Report
- Waiting List
- Fill this event from skills
- Download Tournament Manager Import Data
- Download Registration Report as CSV (will not import to Tournament Manager)
- Download Team Email List Report as CSV (will not import to Tournament Manager)

Review or Edit Existing Events

After your event has been created, you may return to RobotEvents.com at any time to review or edit the information that you have entered.

- Login to RobotEvents.com with your e-mail and password.
- Click on “**Administration**”, then click on “**Events**” at the top of the page.
- If you want to review your past event(s), select a previous “**Season**”.
- Scroll down to your event and then click on “**Edit**.” If you do not see your event(s), contact your Regional Support Manager for help.

Payments

There are two types of fees that teams pay to compete in the VEX IQ Challenge. The first fee is the \$150 Team registration fee (\$100 for each additional team using the same team number but different letter). Once the team is registered for the season, the team can register for events, which is the second type of fee, the event registration fee. Note: Teams will be unable to register for an event if their payment indicates pending.

Event Partners may charge any registration fee for their event within reason. The most common charge is \$50-\$100 per team for a VEX IQ Challenge tournament or league. Multi-day events and those in special locations may charge more.

Event Partners do not pay an annual fee to the REC Foundation to use RobotEvents.com, but instead are charged \$5 per team that registers for their event. This way, Event Partners can set the registration fee high enough for their own event to easily cover this \$5 fee per registrant.

If Event Partners chooses to make their events free, or choose to collect the event registration fee themselves, the REC Foundation will invoice the Event Partners to recover the \$5 fees.

All payments that teams make to the REC Foundation for event registration fees will be forwarded to whomever the Event Partner identified as the Payee in the Event Partner Payment Address page when creating the event, less the \$5 per registered team. Payments are made to the payee once per month, for all payments received by the REC Foundation from the previous month.

Field and Game Components and Event Partner Supplies

To see the products available, log into vexrobotics.com and click the “**Event Partners**” option in the middle of the gray menu bar. These items can be ordered directly from RobotEvents.com with any available discounts automatically applied by logging in and clicking on “**Administration**” and “**Products**”.

At least one field is needed to hold a competition:

- VEX IQ Challenge Full Field Perimeter and Tiles, p/n 228-2550 – Reused each season
- VEX IQ Challenge Next Level – Full Field & Game Element Kit, p/n 228-5682 – Changes each season
 - Game components are available after the new game is introduced at VEX Worlds in April.

The VEX IQ Challenge Event Support Bundle, p/n VIQC-EPSB-2017 may be free for your first official event. It includes:

- VEX IQ Challenge Banner Kit, p/n 228-4068 – Changes each season
- VEX IQ Challenge Qualifying Event Trophy Pack, p/n 228-3171 – Order for each event
 - (7) VEX IQ Challenge Small Trophies
 - **(8) Award Plaques included:** (2) Excellence, (2) Teamwork Champion, (1) Design, (1) Robot Skills Champion, (1) Judges Award, (1) Volunteer of the Year
 - (8) Date plaques

Note: Event Partners may be offered the VEX IQ Challenge Event Support Bundle for your first official event and an additional VEX IQ Challenge Qualifying Event Trophy Pack for certain additional official events for free or at reduced prices supported by donations from our sponsors. Contact your Regional Support Manager to learn more. The Regional Support Manager will approve the appropriate Event Partner Discounts after your official events are approved if discounts are available.

VEX Tournament Manager Software

The following items are found in the “**General Information**” section when Viewing the event from the Administration, Event tab in RobotEvents.com. Be sure you record these two codes for use in Tournament Manager.

- **Event Code:** This is a unique system-generated code for your event.
- **TM Code:** Enter this in Tournament Manager to download your team list and other event information.

Space and Resources Required to Host a VEX IQ Challenge Event

Successful VEX IQ events can be coordinated without using a lot of space and resources. The following suggestions and the sample event layouts, available on the VEX IQ Event Documents site RoboticsEducation.org/event-partners/event-partner-resources-documents/, are designed to assist you in planning for the best utilization of your space and resources:

Space and Resource Suggestions	Details
4'x8' Game Field(s): 1 field for every 8-12 teams is ideal, but less can be used successfully. The same field is used for all robot challenges and can be re-used each season.	Ask teams to share their field(s) and game elements or purchase from: VEXRobotics.com/vexiq/products/competition-products . Game elements for the new robot game each season are available for purchase after the VEX Worlds event in late April.
4'x8' Practice Field(s): 1 field for every 4-6 teams is ideal, 1 field for 8-12 teams is typical, but less can be used successfully.	If separate practice fields are not available, game fields can be re-used for practice or teams can bring and share their own fields for practice opportunities.
Team Pit Areas: Table space of at least 3' each or 2 student desks is recommended for each team.	Teams can share tables of any size or shape. Cafeteria folding tables are a good option. The pit stations can be set up in separate spaces or hallways, if needed.
Project Presentation Space: 12'x12' space with a table and 3 chairs is ideal for each judging panel, but less is used successfully.	Recommended locations are in a separate space, room, or low-traffic portion of the venue or hallways. Tri-fold poster boards or white boards can be used to separate spaces, if needed. Use one chair for an adult chaperone for students with special needs.
VEX TM Operator Station: 1-2 tables and 2 chairs per station	Ideal station includes 1 PC Laptop, 1 backup PC laptop if available, 1 projector, 1 printer, and access to power.
Inspection Station: 1-2 stations can share 1 table and chairs	After initial inspections are complete, tables can be used for queuing, trophy display, or other event activities.
Volunteer Lunch Space: For full-day volunteers. Multiple small spaces or outdoor covered patios can be utilized.	When not serving lunch, Judges can use this space to conduct Project judging sessions, review Engineering Notebooks, and conduct award deliberations.
Audience Space: Plan for accessible special needs and chaperone seating. Students can sit on floor space, if needed.	Adult seating in bleachers or folding chairs to view game fields during matches. Only student drivers participating in the match are permitted to stand next to the game fields.
Trophies and Banners: Award recognition of 1/4 to 1/3 of the registered number of teams is ideal. Recognition options can include VEX IQ trophies, Tournament Manager certificates, or your own form of awards.	A VEX IQ Event Support Bundle, including 1 Banner Kit and a standard pack of trophies, is available for events with 16 or more registered teams. Contact your Regional Support Manager for details. To order trophies and VEX competition products, visit: VEXRobotics.com/vexiq/products/competition-products .

Technical Resources Required to Coordinate a VEX IQ Challenge Event

VEX IQ events can be successfully coordinated using low-technology resources, since VEX IQ fields do not require an electronic connection. Use the following resources to enhance your event:

Space and Resource Suggestions	Details
PC Laptop, Printer, Tournament Manager software to schedule matches, provide a match time clock, score matches, calculate team rankings, and print reports, signage, and certificates.	Required to upload results to RobotEvents.com. Free user-friendly software with a user guide is available as a PC or Mac download from: dwabtech.com/tm2/ .

Optional Technical Resources	Details
Projector, Screen/Monitor to project match scores, rankings, and sponsor logos.	Projection options for audience viewing can include a screen, monitor, or a wall.
Portable Public Announcer (PA) System for announcements and game play-by-play.	Engage and inform participants. Valuable at larger events. Wireless microphones are convenient.
Ethernet Switch/Router to connect additional PC Laptops running Tournament Manager (TM), Projectors, Screen/Monitors	At large events, you can use Ethernet cables to network additional Tournament Manager stations for pit display, team check-in, and robot inspection.
Timer or Stopwatch may be utilized for Skills Challenge matches and/or Project presentations.	There are no electronic connections to the VEX IQ field.
Internet Access may be used by teams to access web-based programming software and by the VEX TM Operator to upload event results to RobotEvents.com.	If wired or wireless network connections are not available, mobile phone hotspots can be used. Internet access is only required by Tournament Manager to upload results.
Radios/Walkie Talkies to facilitate volunteer communications and to support event safety and security at larger events and/or events held in separate spaces.	Supports communications among key volunteers and event roles, such as queuing. May be available for checkout from school office or for reasonable rental fee.
Video Camera can be used to project robot match action to an overhead location to enhance audience viewing.	Can share scoring projector by switching inputs. Can use Tournament Manager overlays if video mixer is available.
5 GHz Wi-Fi Router/Access Point and Tablets for match scoring.	For experienced, technically sophisticated Event Partners. Allows referees to enter match scores directly.

Volunteers Needed to Coordinate a VEX IQ Event

The following are suggested minimum numbers of volunteers, which will vary with event size and format. Please visit [RoboticsEducation.org/event-partners/event-partner-resources-documents/](https://roboticseducation.org/event-partners/event-partner-resources-documents/) for volunteer role descriptions and volunteer training resources.

Event Role	Small (12–24 teams)	Medium (25–36 teams)	Large (37–48 teams)
Registration/Info Desk*	1	1-2*	2*
Pits/Practice Field Manager	1	1	1-2
Inspectors/Queuing*	1-2 *	2–3 *	3-4 *
Referee/Scorekeepers	1-2	2-3	3-4
Emcee	1	1	1-2
VEX TM Operator	1	1	1-2
Judges	2-4	4-6	6-8
TOTAL	8-12	12-17	17-24

* Possible dual roles

Field Set Up: Students do the work and have the fun!

Training Resources Available to Support VEX IQ Event Volunteers

VEX IQ volunteers do not require technical training or experience. The ability of all event volunteers to interact positively with young students, however, is very important. Training guides are available to help your volunteers prepare for their event role(s). REC Foundation staff members also conduct training calls for Event Partners, Judges, Referee/Scorekeepers, and Robot Inspectors throughout the season to share best practices and answer volunteer questions. For volunteer training resources, including the volunteer training call schedule, please visit: roboticseducation.org/volunteers/volunteer-resources/.

Best Practices for Scheduling Robot Matches

When scheduling Teamwork Challenge matches, start with a slower match cycle time to give teams and volunteers time to get used to the queuing process. You can reduce this match cycle time as the event progresses. For official events, plan to schedule six or more Teamwork qualifying matches per team. One out of every four qualifying matches will not count toward the teams' rankings. It is great to also provide teams with three or more each of Robot and Programming Skills Challenge matches, on a first-come, first-served basis.

Best Practices for Judges

- Provide Judges with copies of the Project and Design rubrics and the sample questions included in the Judge Guide, available on the Event Documents web page, to facilitate their interviews with teams.
- Project judging can be held in a separate space or room before robot matches begin and schedule conflicts could develop. If held in a separate space, assign at least two Judges per panel. Teams may sign up on event day, or in advance by using an online tool, for sessions in 12-minute time slots.
- Judges evaluate teams for Design and other Judged awards in the pit areas.
- Ensure that Judges demonstrate impartiality and confidentiality in team evaluations and deliberations.
- Completed Project and/or Design rubrics should not be returned to the teams at the end of the event. The forms are used by Judges to help identify top contenders for the awards and not to select the final winners. These documents should be considered confidential judging documents. They should be collected by the Judge advisor and destroyed.
- Post signs for each pit area in team number order to help Judges connect easily with teams. These signs can be printed from Tournament Manager.

Best Practices for Referees and Inspectors

- Review the Game Manual, Referee/Scorekeeper Guide, Inspector's Guide and Referee videos.
- Use the VEX IQ Challenge field tiles and side wall to help measure the legal size of the robot.
- Count out loud while scoring robot matches and encourage the students to participate in this process.
- Maintain paper score sheets as a backup, if you are scoring with tablet technology.

Teamwork Challenge Finals and Awards schedule

The default number of teams in Teamwork Challenge Finals matches is 10. This can be changed to another even number if needed. Alliances are determined by team rankings after qualification matches. Each Alliance participates in one Finals match. You can set up Finals matches and awards according to this 10-team example:

- Finals Match 1 (#9 and #10 ranked teams)
- Introduce Judges and announce Robot Skills Challenge Award Winner(s)
- Finals Match 2 (#7 and #8 ranked teams)
- Introduce Judges and Announce Robot Skills Challenge Award Winner(s)
- Finals Match 3 (#5 and #6 ranked teams)
- Announce STEM Research Project Award winner
- Finals Match 4 (#3 and #4 ranked teams)
- Announce Design Award winner
- Finals Match 5 (#1 and #2 ranked teams)
- Announce Teamwork Challenge Winners, Excellence Award Winner, and Wrap Up

Best Practices to Ensure Safety for All Participants at the Event

- Develop an emergency plan and share it with all event participants
- Plan space to accommodate a larger audience and number of supporters for young VEX IQ Challenge students than what would normally be expected for a VEX Robotics Competition event for older students.
- Provide space to accommodate an adult chaperone for each team throughout the event.
- Participants are not required to wear protective eyewear, but adults should ensure that students are prepared to safely participate in all event activities. This would include tying back long hair when in close proximity to robot motors, wheels and gears.
- If judging is conducted in separate spaces, plan for more than one Judge to serve on each panel.
- Set up battery charging stations near an electrical outlet along a wall or ensure that all electrical cords are covered or taped down. All traffic areas should be clear and unobstructed.
- Consider the following options to reduce crowd congestion near the robot game fields:
 - Elevate game fields on 18"-24" tables or flat risers to enhance audience viewing
 - Use a video camera to project robot matches to a screen, monitor, or wall to enhance audience viewing
 - Post ropes, caution tape, or stanchions to create space between the game fields and the audience.

Essential Event Partner Resources

The following are the essential resources available to support your invaluable efforts to plan and coordinate a successful VEX IQ Challenge event:

- **VEX IQ Challenge Overview:** [RoboticsEducation.org/competition-teams/vex-iq-challenge/](https://roboticseducation.org/competition-teams/vex-iq-challenge/)
- **Event Partner Resources & Documents:**
[RoboticsEducation.org/event-partners/event-partner-resources-documents/](https://roboticseducation.org/event-partners/event-partner-resources-documents/)
- **Volunteer Resources:** [RoboticsEducation.org/volunteers/volunteer-resources/](https://roboticseducation.org/volunteers/volunteer-resources/)
- **REC Foundation Regional Support Manager Map:** [RoboticsEducation.org/support](https://roboticseducation.org/support)
- **VEX Event Partner Products:** vexrobotics.com/event-partners
- **VEX IQ Challenge Event Partners Forum:**
vexiqforum.com/forum/vex-iq-challenge-discussion/vex-iq-challenge-event-partners
- **Event Partner Summit:** <http://www.roboticseducation.org/event-partners/event-partner-summit/>