VEX IQ Challenge

Live Remote Tournament (LRT)

Event Partner & Volunteer Guide/
Tournament Operator Instructions
Table of Contents

Introduction to Live Remote Tournament (LRT) Gameplay............................... 4

Document Overview......................................................................................... 5

Section 1: Volunteer/Event Staffing................................................................. 5

  Overview ........................................................................................................ 5
  Volunteer Roles .............................................................................................. 6
  Overall Volunteer Needs ................................................................................ 8

Section 2: Technology Requirements for Key Volunteers/Event Staff ............... 8

  Required Equipment: .................................................................................... 8
  Recommended Equipment: ............................................................................. 8

Section 3: Event Setup & Initialization .............................................................. 9

  Step 1: Event Setup on RobotEvents.com ..................................................... 9
  Step 2: Set Up Key Volunteer Permissions .................................................. 10
  Step 3: Organize Robot, Field, & Camera Inspections ................................. 10

Section 4: Event Initialization Procedures ....................................................... 11

  Step 1: Verify Team List ............................................................................... 11
  Step 2: Logging into the Tournament .......................................................... 11
  Step 3: Selecting Audio and Video Inputs ...................................................... 12
  Step 4: Open the Tournament .................................................................... 12
  Step 5: Set up Event Variables .................................................................... 13

Section 5: In-Event Procedures ........................................................................ 14

  Overview of the Key Volunteer Interface ..................................................... 14
  Step 1: Start the Event ................................................................................. 15
  Step 2: Start a Match ................................................................................... 17
  Step 3: The Ready Check ............................................................................ 17
  Step 4: Starting the Driver Controlled Match Period .................................... 18
  Step 5: Scoring the Match .......................................................................... 18
  Step 6: Ending the Match ............................................................................ 19
  Step 7: Finalizing the Score ........................................................................ 20
  Step 8: Leave the Match ............................................................................. 20
  Step 9: Repeat for Each Match ..................................................................... 21
  Step 10: Alliance Selection for Finals Matches .......................................... 21
  Step 11: Run Finals Matches ....................................................................... 22
  Step 12: Ending the Event .......................................................................... 22
Section 6: Troubleshooting Information for Teams

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio</td>
<td>23</td>
</tr>
<tr>
<td>Audio Feedback</td>
<td>23</td>
</tr>
<tr>
<td>Missing Audio</td>
<td>23</td>
</tr>
<tr>
<td>Video</td>
<td>24</td>
</tr>
<tr>
<td>Team Video Display</td>
<td>24</td>
</tr>
<tr>
<td>Partner/Opponent Video Display</td>
<td>25</td>
</tr>
<tr>
<td>Camera Selection</td>
<td>25</td>
</tr>
<tr>
<td>Accessibility</td>
<td>25</td>
</tr>
<tr>
<td>Buttons</td>
<td>25</td>
</tr>
<tr>
<td>In-Match Timer</td>
<td>26</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
</tr>
</tbody>
</table>
Introduction to Live Remote Tournament (LRT) Gameplay

Live Remote Tournament (LRT) gameplay is a new event format developed by the REC Foundation for the 2020-2021 competition season. LRT gameplay allows teams to compete remotely in live interactive competitions using a web-based portal through RobotEvents.com. The purpose of this document is to outline the technical and volunteer requirements needed as well as provide the required instructions for Event Partners to set up and conduct Live Remote Tournaments.

Previously, traditional VEX Robotics Competition events have been held “in-person” in a single location such as a school, gymnasium, community center, or a myriad of other public venues. By utilizing the RobotEvents.com Live Remote Tournament system, Event Partners can also choose to hold an event entirely remotely. This allows teams to compete together while remaining in physical isolation from one another, and allows teams to compete with teams in their region and beyond without the expenses of travel.

Many aspects of the competition that might have been handled by volunteers, including proper field setup and reset, and ensuring teams are on the field for their upcoming match are responsibilities that now fall to team members and their designated adult team Facilitator, the coach, or other responsible adult who will be supervising students during the event. Event Partners hosting Live Remote Tournaments must be proactive and detail oriented in preparing for and managing these events. Failure to follow these directions may result in substantial delays to the event and/or an inability of teams to participate in the event.

In a Live Remote Tournament, the VIQC Rise Above Teamwork Challenge is played by an Alliance composed of two Teams operating under driver control. Each Team competes on a separate field (i.e. there are two Robots, two Teams, and two fields involved in each Match). An Alliance’s score at the end of a Match is calculated by combining the fields of each Team.

For the full game rules, please consult the current version of the VEX IQ Rise Above Game Manual, including the section on Live Remote Tournament Rules.

General information for Event Partners is found in the Event Partner Guide. Additional resources for Event Partners is available at RoboticsEducation.org or by contacting your Regional Support Manager.
Document Overview

This guide is divided into six sections:

Section 1: Volunteer Roles/Event Staffing Requirements
This section will explain the volunteer/event staff requirements for Live Remote Tournaments and how they compare to in-person events.

Section 2: Technology Requirements for Volunteers
This section will explain technology requirements for volunteers/event staff. Requirements for teams is found in the Live Remote Team Guide & Setup Instructions.

Section 3: Tournament Setup & Initialization
This section will explain how to set up a Live Remote Tournament in RobotEvents.com and setting up volunteer permissions.

Section 4: Event Initialization Procedures
This section will explain how to initiate the start of the event on the RobotEvents.com Live Remote Tournament system so teams and volunteers can connect.

Section 5: In-Event Procedures
This section will explain the step-by-step process for running a Live Remote Tournament.

Section 6: Troubleshooting
This section will give guidance on how to solve common issues.

Section 1: Volunteer/Event Staffing

Overview

Event Partners who are familiar with the volunteer roles and responsibilities for in-person events will recognize that Live Remote Tournaments (LRTs) have different volunteer needs from in-person events. For example, resetting fields correctly – a vital part of the event which would fall under the responsibility of a field reset crew and referee staff at an in-person event, is that teams must be responsible for doing during Live Remote Tournaments.

Another key difference is that Live Remote Tournaments do not use Tournament Manager to input scores, start match timers, or finalize results - instead a browser-based user interface is used through remote.robotevents.com. The person responsible for using this interface to execute the event is referred to as the Tournament Operator in this document. Once in the event, Tournament Operators can fill more specific volunteer roles: Emcee/Announcer, Match Controller, or Scorekeeper.
LRT events may be viewed by their audience with a slight delay via an automatically generated link via YouTube, however the teams participating in the match and a select few key event staff need to have a real-time connection. There is a technological limitation for how many computers can be connected to the event in real time. As such, it is recommended that a Tournament Operator also fulfill the role of the Emcee/Announcer in addition to another role such as Match Controller. The Head Referee also needs access to the event in real time. All others should watch using the public video feed which will have a slight delay, or in the case of scorekeepers, follow along via 5-second screen captures (explained below). The Head Referee, Emcee/Announcer, and Match Controller are key roles which have identical levels of access to the event and can fill in as backup for each other if needed.

**Volunteer Roles**

Those who are accustomed to in-person events will recognize that many of the roles and responsibilities for Live Remote Tournaments are very similar to those filled at in-person events, but there are key differences. To help illustrate the volunteer roles for Live Remote Tournaments, the chart on the next page compares the LRT roles with those of an in-person competition.

Currently it is recommended that only two computers can be connected into the Live Remote Tournament as Match Controllers/Announcers/Head Referees at any given time. This is due to the technological limitations of having multiple independent users being a part of the real-time data stream. Scorekeeping should be done through a separate role which uses snapshots sent to those users – this does not count towards the two computer limit since it does not use real-time video. For this reason, it may make sense to have these two key volunteers located in separate access points to the Internet if there is any question about the stability of an access point.

This will allow the event to continue as any technology or volunteer issues are being worked on. Event Partners may wish to have a reserve volunteer able to fill either role on standby in case of need - just as they would at an in-person event.

If two volunteers can share a computer and a video screen - for example one person serving as a Tournament Operator looking at one computer screen, while another serves as an Announcer looking at a connected monitor showing the same display, then event roles can be subdivided among additional personnel as long as the overall number of connected computers is limited. If each volunteer is in isolation and would need a separate connection, then it may be necessary for each volunteer to fill more than one role during the tournament (i.e., one person acting as both Tournament Operator and Announcer) in order to keep the number of overall connections down.
## Live Remote Tournament (LRT) & In-Person Volunteer Roles Comparison

<table>
<thead>
<tr>
<th>Live Remote Volunteer Role</th>
<th>In-Person Volunteer Role</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Event Partner</strong></td>
<td><strong>Event Partner</strong></td>
</tr>
<tr>
<td>• Organizer of event</td>
<td>• Organizer of event</td>
</tr>
<tr>
<td>• Responsible for recruiting and organizing volunteers</td>
<td>• Responsible for recruiting and organizing volunteers</td>
</tr>
<tr>
<td>• Responsible for setting up the event in RobotEvents.com</td>
<td>• Responsible for setting up the event in RobotEvents.com</td>
</tr>
<tr>
<td>• During event, helps solve unforeseen issues/communicate with teams having connection issues</td>
<td>• During event, helps solve unforeseen issues</td>
</tr>
<tr>
<td>• Ultimately responsible for the execution of the event</td>
<td>• Ultimately responsible for the execution of the event</td>
</tr>
</tbody>
</table>

**Key: Match Controller / Announcer**

- **Backup Head Referee**
- **Needs access to real-time match video**
- **Needs Microphone**
- **Starts/stop Matches**
- **Finalize scoring**
- **Assist with scoring/correct errors**
- **Makes any event announcements**
- **Play-by-Play commentary during matches**
- **Communicates to teams for refresh/tech help**

**Tournament Manager Operator**

- **Start/stop matches**
- **Finalize scoring**
- **Manage Displays**
- **Correct scoring errors**

**Emcee/Announcer**

- **Makes any event announcements**
- **Play-by-Play commentary during matches**

**Key: Head Referee**

- **Emergency Backup Tournament Operator/Announcer**
- **Needs access to real-time match video**
- **Needs Microphone**
- **Watch the match and make rulings on legality**
- **Makes final ruling on scoring issues**
- **Oversees Team/Robot Inspection**
- **Helps check accuracy of field reset**

**Head Referee**

- **Watch the match and make rulings on legality, final word on rules and violations**
- **Verifies scores as posted with teams**
- **Oversees Team/Robot Inspection**
- **Can score fields if needed**

**Scorekeeper Referee**

- **Does not use live video - but snapshots of team video feeds sent at intervals**
- **Scores matches (Usually assigned to a particular field)**
- **Potentially assists with inspection**

**Scorekeeper Referee**

- **Score matches**
- **Potentially assists with inspection**
- **Helps check field reset**
Overall Volunteer Needs

The Event Partner is responsible for recruiting:

1. 1 Tournament Operator/Announcer
2. 1 Head Referee
3. 1-2 Scorekeeping Referees
4. Any inspection staff (dependent on the number of teams at the event)
5. Any judging staff including a Judge Advisor if Judged Awards are given at the LRT event

As stated previously, some roles may be combined for Live Remote Tournaments. This depends on the circumstances of each Event Partner and their key volunteers.

**Note:** At the present time, all event volunteers who need to be logged into the LRT system (Announcers, Tournament Operators, Head Referees, and Scorekeepers) will have identical access to the event. As such, volunteers will need instructions from the Event Partner as to what role they will need to fill on the day of the event and be mindful of their assigned role when selecting how to join into a match.

This also allows for volunteers to quickly cover each other’s roles if needed. For example, if a Head Referee loses Internet access, a qualified Scorekeeping Referee can take over their position by joining a match as a “Match Controller” rather than as a “Scorekeeper.” To put it another way, volunteer roles are defined by what users do and in what role they join a match, rather than any attribute or level of permission associated with their account.

Section 2: Technology Requirements for Key Volunteers/Event Staff

These requirements apply for any user serving key roles as Announcer/Tournament Operator/Head Referee. At present **only two** Key Volunteer computers can be joined with the Live Remote system to receive real time video feed.

**Required Equipment:**

- Reliable Broadband Internet access (preferably via a hardwired connection)
- Computer running Windows 10 or Mac OS
  - Minimum of an Intel i7 processor (4 processing cores) or equivalent.
- Chrome web browser (running the most recent release of Chrome) on the computer for logging into [remote.robotevents.com](http://remote.robotevents.com)

**Note:** As the system improves, the system requirements are likely to change and this section will be updated to include more specific hardware requirements.

**Recommended Equipment:**

- Additional large monitor or screen to make it easier for scoring/sharing the view of fields if multiple volunteers such as scorekeepers are working in the same location.
- High-quality microphone
Note: Scorekeeping referees do not need computers of the same processing power since they will be scoring using pictures of team videos captured at intervals, rather than real-time video. They also do not need microphones or cameras. Event organizers and the Head Referee should coordinate so scorekeepers are scoring the correct fields and have an alternate plan of communication such as a group chat or telephone system for resolving any scoring issues.

**Section 3: Event Setup & Initialization**

**Step 1: Event Setup on RobotEvents.com**

The Event Partner sets up their event on RobotEvents.com by filling in all required fields. The process is the same as setting up other types of events on RobotEvents.com except for some specific fields that need to be entered correctly on the “Event Information” page:

1. Be sure to select “Live Remote Tournament” as the Event Type.
2. Be sure to select “Remote” as the Event Format.

If you are unsure of this process and would like detailed instructions on posting events on RobotEvents.com, refer to this guide. It is recommended that Event Partners add a survey question in the event for coaches to confirm the event day contact phone numbers for each team’s Event Facilitator. This could also be done outside of the RobotEvents.com system via email or an independently written survey that the EP sends to teams. This is also included as an item in the LRT inspection checklist.

Once all required fields are filled out, Event Partners should contact their Regional Support Manager to initiate the final approval/review process.
Step 2: Set Up Key Volunteer Permissions

Currently all LRT Volunteers that require direct access to the LRT system (Tournament Operator(s), Announcer(s), Head Referee(s), and scorekeeping referees) need to be added into the event as “Event Administrators.” This will give them the necessary access to log into the LRT tournament via remote.robotevents.com.

Volunteers will need to first make a RobotEvents.com account and then forward those emails to the Event Partner, who will then send their completed list of volunteer emails to their Regional Support Manager who will make the necessary modifications to their RobotEvents.com account. This needs to be done well in advance of your event date to ensure they are properly set up in the RobotEvents system.

Step 3: Organize Robot, Field, & Camera Inspections

Event organizers should develop a plan for inspecting teams. This process may take longer than in-person events since teams need to have their field and camera setup inspected in addition to their robot. This information can be found in the VIQC LRT Technology and Field Inspection Guide.

Completing inspections ahead of the event day gives teams time to resolve any issues before the event. It is highly recommended that event organizers do inspections with plenty of time for teams to make changes or corrections to be in compliance with the inspection criteria. Scheduling inspections a day ahead of the event can help the event run more smoothly, shorten the overall length of competition day, and provide a better experience for teams. It is recommended that this be done over a video conferencing platform by asking teams to sign up for an inspection time. This can be linked in the email that RobotEvents.com will generate for each team that registers for the event. To speed up the process, multiple inspectors can work in parallel.

It is recommended that robot inspection and field/camera inspection be scheduled separately. Teams may use a different camera for robot inspection then they would for their LRT setup. Scheduling distinct inspections will give inspectors a better opportunity to evaluate the actual setup and camera views that teams will be using during the event.

If teams fail inspection at in-person events, they will often have an opportunity to make corrections to their robot in order to compete and must sit out of any matches until they pass an inspection. LRT events by nature cannot work the same way. For LRT events, teams that do not demonstrate that they can pass inspection in their allotted inspection time should be removed from the event.

Permitting teams to compete in LRT events who do not have field or technology configurations that are in compliance with the inspection requirements will degrade the experience for other teams, event volunteers, and the audience. While it is laudable to try and accommodate teams
who may be struggling to try and give them a good experience, the inspection requirements are not negotiable and the experience of all other participants in the event should take precedence over an individual team.

Section 4: Event Initialization Procedures

Step 1: Verify Team List

At the present time, the team list must be verified prior to the event being opened on Remote.RobotEvents.com. Each team’s attendance should be verified as a part of inspection and confirmed the day of an event. Any teams that do not pass should not be included in the team list for the event. They can be removed by the Event Partner going through the admin portal to their event on RobotEvents.com and then removing teams from the active team list by transferring them to the waitlist.

Step 2: Logging into the Tournament

When you are ready to start your event, all event volunteers should go to remote.robothevents.com and select “Login as an Event Partner.” All volunteers should use this button to log into the event.

Note: If someone is both a Tournament Operator and has a team in the event, they will need two separate computers, one to log in as a team, and the other to log in as an Event Partner/Volunteer.
Step 3: Selecting Audio and Video Inputs

Once the Tournament Operator has logged into remote.robotevents.com, they will be asked to connect their audio and video preferences. At this time, they will have to choose/connect an audio input such as a microphone (please be aware of your microphone and mute yourself unless you are talking to the teams) but can select “None” for video. All volunteers require a microphone in order to connect to the event.

**Note:** The Tournament Operator, Announcer, and Head Referee roles do not require an appearance on camera and thus does not need a dedicated webcam.

Step 4: Open the Tournament

Once logged in, a list of LRT events that your account has access to will appear. Click “OPEN” on your event that will be running on that day.
Step 5: Set up Event Variables

Once the event has been Opened, the Tournament Operator will be asked to set up the event by selecting the time allotted between matches, the number of matches, and other event details as shown below.

**Note:** The time is measured in seconds. The time between matches is not the same as the “match cycle time” used in Tournament Manager.

**IMPORTANT:** When scheduling the number of Alliances in your Live Remote Tournament, please keep in mind that due to the nature of this format, teams that lose connection will be unable to participate in Finals, which may lead to issues during Finals matches that will result in a less positive experience for teams. As such, Event Partners should be conservative when configuring the number of teams that will move on to Finals, setting that number to fewer than the total number of teams in the event.

**Once “SAVE & FINALIZE SCHEDULE” is clicked, these details cannot currently be revised.** Event Partners/Tournament Operators should discuss these numbers with their Regional Support Manager prior to the day of the event.

**Note:** The event date in the LRT system must match the date on RobotEvents. If the event is postponed, the event date in RobotEvents must be changed.
Section 5: In-Event Procedures

Overview of the Key Volunteer Interface

This view shows the in-match view for the Tournament Operator. Numbered Items are:

1. **Match Timer and Current Score**
2. **Match Video**: Current videos of teams in the match. Each has independent full screen and mute buttons
3. **Match List**: This list includes already scored and upcoming matches
4. **Match Chat**: This chat is only visible for teams in the specific match and volunteers
5. **Scoring Interface**: Note that the user must select which field is being scored
6. **Match Actions Panel**: Panel includes actions such as “Ready Check” and “Start Match”. Above is the mute feature for the user logged in, and the button to open the private chat window.

**Note**: To join a match as either a Score Keeper or Match Controller, click on the 3 dots next to a match as shown. Scorekeeping Referees while logged into matches, will not have access to the Match Actions Panel – they will be limited to the scoring interface.

---

**Step 1: Start the Event**

Once the event schedule has been finalized, the Tournament Operator will be brought to the event lobby. The Tournament Operator must select “START EVENT” right next to the Match Schedule to allow for teams to be joined into the event. They will receive a notification in Remote.Robotevents.com that the tournament has been started and a link to bring them to the event lobby. As teams join, the team numbers will show white in the schedule. If teams are not connected to the Live Remote Tournament, the team number will be grayed out.

**Note**: Tournament Operator can use the chat function on the right-hand side of the screen to communicate with the teams in the lobby. Event Partners or other technical assistant volunteers should also have their phone available that is listed on the event page at RobotEvents.com as the Event Day Phone Number. This gives teams that may be having internet connectivity issues a way to communicate with event staff.
The image on the left contains the list of upcoming matches indicating which teams have joined the events: those teams appear in white, teams that have not yet joined remained grayed out. If a team is grayed out in your event, they may be having issues connecting. We recommend the Event Partner or other event assistant reach out to the team to see if they are in the process of solving their technical difficulties and assist if needed.
Step 2: Start a Match

Once all the teams are joined to the event, then the Tournament Operator can “Join” Practice/Qualifying matches by selecting “Join as Match Controller.” Once the Tournament Operator joins the match, click “Start Match” in the Match Action Panel to automatically bring the teams into the match from the event lobby.

Scorekeeping referees should also join the match but use the option “Join as Scorekeeper.” They will not have access to the Match Action Panel or live team video feeds but will have access to the Scoring Interface and chat features. Team videos will be replaced by snapshots of the team fields every 5 seconds while a match is running.

Note: Once in the match, the Tournament Operator can use the chat function on the bottom of the page to communicate with the teams. The Tournament Operator can also use the microphone to communicate with the teams as well. The Tournament Operator will notice that teams can be muted using the microphone buttons on the bottom of each team video. This will mute the team for the Tournament Operator only. Teams will still be able to hear each other (teams can mute each other independently).

Announcer Note: Welcome teams to match, verbalize any discrepancies with field setup, if video for a team is not appearing, ask team to refresh their browser.

Step 3: The Ready Check

Tournament Operator performs a “Ready Check” for all the teams to ensure they are ready to start the match. This is done using the appropriate button in the upper right panel. This will send a notification to each team and they must click using their computer to confirm that they are ready for the match. In an in-person event, this is usually done by drive team members giving the head referee a “thumbs-up” signal that they and their robots are ready to start the match.
**Note**: If the Tournament Operator does not see one of the teams show up in the view they should refresh their browser page. It may take up to 8 seconds to refresh. Wait before clicking refresh again. **If the team video feed still does not appear, the team must refresh on their end.**

**Announcer Note**: Instruct teams: “Please click your ready check so we know you are ready for your match,” if they do not answer the ready check prompt.

---

![Ready Check Button Image]

*On the left, the Ready Check Button is vision in the Match Actions panel. On the right, one of two teams have signaled Ready Check complete.*

---

**Step 4: Starting the Driver Controlled Match Period**

Tournament Operator selects “Driver” to run the match once all teams have confirmed their Ready Check.

---

![Match Controls Panel Image]

**Announcer Note**: You can give a clear countdown to start the match, but do not say “Go.” Allow the Timer sound to be the signal as to the start of the match.

---

**Step 5: Scoring the Match**

Once the match is complete, the referee/scorekeepers can begin to score the match using the panel on the right hand side of the screen.
Best Practice: For VEX IQ, having the head referee count each scoring object out loud while referring to the labelled goals is a great way for students to follow along and raise any issue with scoring as they are counted out loud. Not only is this transparent, it is also very fast and teams can watch their score rise as goals are scored, adding excitement and anticipation for the final score.

![Match scoring application](image)

This is the match scoring application located on the right side of the screen. Note that the scorer will need to select which team’s field they are scoring.

Announcer Note: You can also use this time to discuss the different strategies employed by the alliances, pointing out positive contributions by different teams, and thanking sponsors and supporters.

Step 6: Ending the Match

Once the match is completed and scored, select “End Match”, and then click “Continue.”

Note: The "End Match" button gives you access to the "Finalize Scores" which will bring teams back to the event lobby - think of this process as two factor confirmation that the match is over.
Once the match has been ended, teams will have a chance to confirm the scoring of their field. There will be a check mark by the team number in the scoring interface when a team has done so as seen below. Like the “Ready Check” feature, this is not a requirement for the event to proceed (teams that are unable or unwilling to confirm a score will not hold up a tournament).

In the above image, the team on the left has confirmed the game object placement of their field. The team on the right has not.

**Step 7: Finalizing the Score**

Once the Head Referee has completed any final checks of the score, select “Finalize Scores” and then “Continue” on the “Finalize Scores” prompt.

![Finalize Scores Prompt]

**Note:** Once the “Finalize Scores” button is clicked, the button will turn into “Unfinalize,” which will allow a Match Controller to go back and make a correction if needed. This should be rarely used if teams are confirming the scoring of their fields.

**Step 8: Leave the Match**

Once the Tournament Operator has ended the match for teams and finalized the score, the Tournament Operator will “leave” the match and then go back to the lobby to select the next match.
Step 9: Repeat for Each Match

Repeat steps 2-8 for each match until all Practice and Teamwork Matches have been completed. Once all Practice Matches and Qualification Matches are completed, the event can then move onto Finals Matches.

**Announcer Note:** As you get closer towards the end of the event, remind teams that if they think they are going to be in a position to be in the Finals, they should be ready and teams will be paired up based on their rankings.

Step 10: Alliance Selection for Finals Matches

Tournament Operator clicks on the “Begin Alliance Selection” button on the right hand side of the screen. This button will create the Finals Matches for VIQC. The teams will be automatically paired up based on their rank. This will automatically create the Finals Matches needed on the left hand side of the screen.

**Announcer Note:** After Finals matches are set up, congratulate all teams for participating in the event and set a timeframe for when finals matches will start.

---

**Begin Alliance Selection**

Are you sure you want to start alliance selection?

- You will be unable to update matches during the process.
- You will not be able to start the process over.

CANCEL CONTINUE
Step 11: Run Finals Matches

Continue running Finals Matches as shown in steps 2-8 until the last match.

Step 12: Ending the Event

Once the last Finals match is complete (finalized score and ended match) the Tournament Operator will be brought back to the event lobby and at the top of the screen click “End Event” to finalize the entire event and send results to RobotEvents.com.

Are you sure you want to end this event? All teams will be taken to RobotEvents.com and will be unable to come back. This action cannot be undone and should only be performed when the event is COMPLETELY finished.

Congratulations!

Your event is complete! At this time, you will need to manually add award winners, including Tournament Championships to the event on www.robotevents.com via the EP admin portal.
Section 6: Troubleshooting Information for Teams

Note: You may need to remind teams on how to solve the following issues. Often this can be done using the in-match chat feature, or by using another line of communication to contact a team’s Facilitator.

Audio

Audio Feedback

Problem: In the Initial set up window, when a team connects audio, they experience audio feedback

Solution: Selecting “None” as Audio Option will immediately prevent this feedback. Note: once teams select “none,” to reselect audio in the future, teams will need to go through the set-up window again.

Missing Audio

Problem: The team cannot hear event audio/announcer/referees.

Solution: Have the team verify that the audio settings on the computer are set up properly. Confirm that the correct output device has been selected and that it is not muted. All teams should be using external speakers to listen to audio from the Live Remote Tournament. Note: There may be instances that there will be no audio, but you will always be able to hear game sounds and buzzers.

Solution: If the problem persists, connect to a different networks available to you, preferably one without a “website authentication” security feature.

Solution: Ask if they team is using school internet. If so, have the team ask their faculty IT department to setup all the needed permissions needed to participate in the event.
Video

Team Video Display

Problem: Team cannot see live video feed from their web camera. Instead, the teams see one of the following:

1. Black Screens for all teams in the match:
   a. **Solution**: Go through the Audio and Video Selection tool again by refreshing the page. If the team can see the webcam video in the set up window properly have them finish the setup process by clicking “Continue.”
   b. **Solution**: If they see a black screen on the preview within the set up window have the team verify that Chrome is giving access to the webcam in Chrome’s settings. To confirm this, click the lock icon on the search bar to find the video/audio sources being enabled in Google Chrome. If this is enabled have the team go to practice.robotevents.com to make sure their webcam is working properly.

2. A Webcam Driver Error (this error is indicative that your webcam driver has stopped working properly, i.e., a black screen with three dots or a black screen with an error message):
   a. **Solution**: Change the external webcam
   b. **Solution**: Remove the camera as a device from the computer and then re-add it to download the drivers within the settings of the computer.
   c. **Solution**: Select the computer web camera to confirm the computer is able to support webcam sharing within the Live Remote Tournament System.

3. If the above does not work, the problem can be related to Internet/Firewall:
   a. **Solution**: Try a different network available to you, preferably one without a “website authentication” security feature.
   b. **Solution**: Ask if team using school internet. If so, have their faculty IT department on site setup all the permissions needed to share web camera within the Live Remote Tournament System.
Partner/Opponent Video Display

**Problem:** The team cannot see live video feed from another team. Instead, the team may see one of the following:

1. Black screens for all of the other teams:
   a. **Solution:** Have the team refresh the entire page and wait 8 seconds.
   b. **Solution:** If a team is using a wireless connection for internet, it is recommended that the team change to a hardwired connection.
   c. **Solution:** Have the team use a different computer with a higher processing power (to be able to receive video from other teams).

2. See black screens for some of the other teams:
   a. **Solution:** Have the team that is not showing video use a different computer with higher processing power.
   b. **Solution:** Have the team and Event Partner (EP) ensure they are not running anything on the device outside of the Live Remote Tournament System. For example, ensure the teams are not using any applications for streaming AND/OR coding software.

3. Team sees video feed but it is highly pixelated:
   a. **Solution:** Verify that the team have a wired connection to internet.

Camera Selection

**Problem:** The team can’t select their external web camera.

**Solution:** On the left hand corner of the Google Chrome search bar there is a lock icon that you will select to see the permissions given to Google Chrome. You will select the dropdown next to “Camera” and select “Ask (default).” Next, restart Google Chrome, and then relaunch the Live Remote Tournament system.

**Solution:** Clear cache & cookies on Google Chrome and then close Google Chrome. Next, restart Google Chrome, and then relaunch the Live Remote Tournament system and log in.

Accessibility

Buttons

**Problem:** The team is not able to select the “my field is ready” button. The “My Field is Ready” button is greyed out after the team has selected “audio” and “video” sources, and have completed the controller pairing process correctly (if applicable).

**Solution:** Select a different audio source in the set up window by refreshing the page.

**Solution:** Have them select an audio source as “none” in the set up window
In-Match Timer

Problem: The team’s in-match timer is not synchronized with the timers of the other teams or EPs.

Solution: The team must select the computer’s time/clock settings and make sure that their clock is synchronized with the time zone that they are in (see below screenshots). The team should select the “sync now” button. Next, restart Google Chrome, and then relaunch the Live Remote Tournament system.

**Date & time**

*Some of these settings are hidden or managed by your organization.*

**Current date and time**

3:01 PM, Monday, January 4, 2021

Set time automatically
- Off

Set time zone automatically
- Off

Set the date and time manually
- Change

Synchronize your clock

Last successful time synchronization: 12/12/2020 5:01:11 PM
Time server: Free-running System Clock

- Sync now
Other

Problem: Camera View Seems to “Zoom In” During Event

Symptoms: Camera view was fine during inspection but seems to “zoom in” at some point during the LRT competition

Cause: Drop in processing power may cause a team’s outbound video feed to downgrade resolution which may in turn changes the aspect ratio.

Solution: Team will need to readjust camera to reframe field properly closing down background process may free up processing power.

Problem: None of the above problems or solutions are applicable to me. What should I do?

Solution: Call the Operations Live Remote Tournament Support Staff at (903) 457-0444 for assistance or use the message icon on the bottom right hand side of the Live Remote Tournament system to get in contact with the Support Staff.