

**VEX Robotics Competition & VEX IQ Challenge**

# **Live Remote Tournaments (LRT)**

**Troubleshooting Guide**

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## General Troubleshooting (VIQC & VRC)

### Before You Troubleshoot

Make sure:

- That your speakers, microphone, and webcam are in good working order with your LRT Computer and your power source(s).
- That you only using 1 tab in Google Chrome for the LRT.
- That your LRT Computer is not running other programs in the background that may interfere with the LRT system. This includes any application using processing power such as streaming video, another application using your webcam or microphone and coding softwares (i.e. VEXcode, etc.).
- That your robot brain and all relevant components have the latest firmware installed
- That you have a strong and reliable internet signal, preferably via an ethernet cable

### General Issues

#### Installing Google Chrome & Enabling Experimental Web Features

1. [Download](#) and install Google Chrome.
2. Navigate to Chrome://Flags in your Chrome browser (VRC Only)
3. Enable “Experimental Web Platform Features.” (VRC Only)
4. Restart your Chrome browser
5. Use Google Chrome browser to log into [RobotEvents.com](https://RobotEvents.com).

#### Unable to Log in as a specific team

**Problem:** User logs in as an incorrect team and cannot get the option to switch the LRT login to a different team.

**Solution:** On the gearhead at the top right of the screen, click logout, then select the correct team from the dropdown.

If this does not work, you can try clearing your browsing data from Chrome and logging back in:

1. On Google Chrome, on the top bar (where you type in the web address), click on the three dots on the right-hand side of the screen.
2. Click on “Settings”
3. Scroll down to “Clear Browsing Data”
4. Make the range at least 24 hours and ensure all options are checked off
5. Then select “Clear Data”
6. Close Google Chrome and Reopen before going back to Remote.RobotEvents.com

## Unable to Select “My Field is Ready”

**Problem:** 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 (VRC Only). The team this cannot connect to the LRT.

**Solution:** Refresh the browser and then select a different audio source in the set-up window.

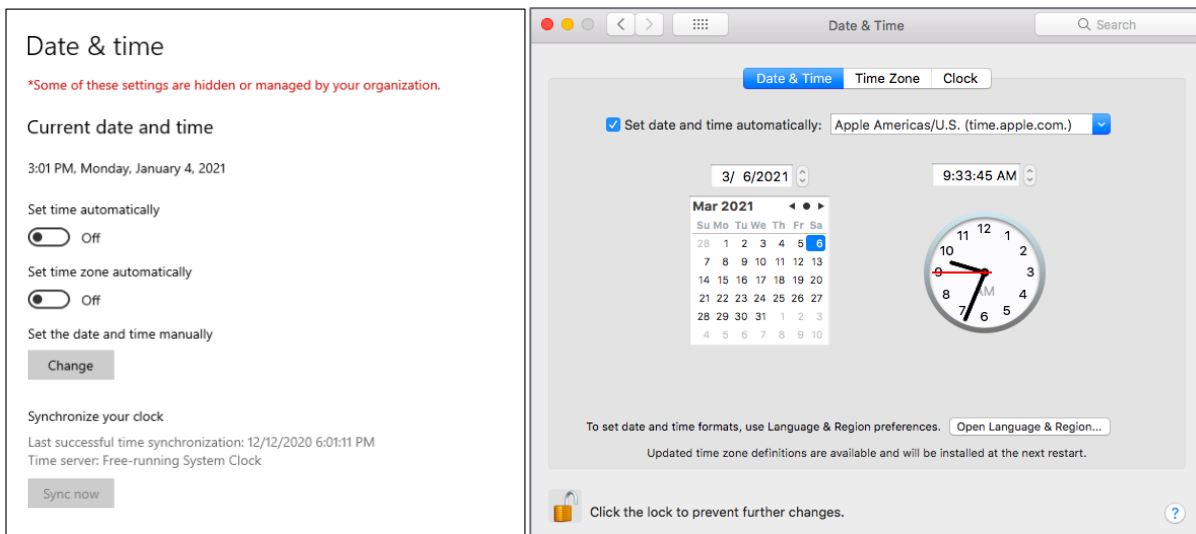
**Solution:** Refresh the browser and then select the audio source as “none” in the set-up window.

## In-Match Timer Sync

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

**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 or “set time automatically.” Next, restart Google Chrome, and then relaunch remote.robotevents.com.



*The time/clock settings for both Windows 10 (left) and Apple (right).*

## Audio Issues

### Audio Feedback Loops

**Problem:** In the Initial set up window, when a team connects audio, they can experience audio feedback loop (often appears as increasingly loud buzzing or repetitive sound). Feedback occurs when a microphone picks up a signal from a speaker which is then picked up again by the microphone, creating a loop.

**Immediate Solution:** Ensure the team is muted on the top right hand side of the screen.

**Short-Term Solution:** Selecting “None” as Audio Source will immediately prevent this feedback, essentially serving the same function as a long-term “mute”.

**Note:** Once teams select “none,” to reselect audio in the future, teams will need to go through the set-up window again.

**Long-Term Solutions:** Other options to prevent feedback include moving any speakers away from the microphone, avoid pointing speakers at a microphone, and lowering the volume of speakers. You may want to experiment with facing your speakers to a different part of the room that is less reflective of sound, if possible.

### 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 (announcer/Event Partner is muted), but you will always be able to hear game sounds and buzzers.

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

**Solution:** Ask if the 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 Issues

### 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 [remote.robotevents.com](https://remote.robotevents.com).

**Solution:** Clear cache & cookies on Google Chrome (see earlier in Troubleshooting Guide) and then restart Google Chrome, and then relaunch [remote.robotevents.com](https://remote.robotevents.com) and log in.

**Solution:** Have the team restart the computer they are using to ensure it is up to date. Use this time to also confirm the team is up to date on Google Chrome.

### Camera View Seems to “Zoom In” During Event

**Problem:** 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 for video to revert to its original framing.

### Team’s Own Video Not Displaying Correctly

**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](https://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 on board 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 Not Displaying Correctly

**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 on the computer 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.

## VRC Specific Troubleshooting

### Running Program on V5 Brain

#### Select Valid Program

**Problem:** The team gets a “select a valid program” error during the “Connect Controller” setup portion of the set up window.

**Solution:** Have the team verify that the latest firmware is updated on everything including the controller. If not, have team update firmware re-download the code onto their robot as needed.

**Solution:** Ensure the program on their controller is running before they select “connect controller.”

**Solution:** Clear cache & cookies on Google Chrome and restart Google Chrome, and then relaunch remote.robotevents.com and log in.

**Solution:** Use a different controller after code is downloaded to it.

#### “Invalid program has been selected” or “Failed to open serial port” Error Messages

**Problem:** After selecting ‘Camera device’, ‘Audio Device,’ and connecting controller, a pop-up error appears stating: “Invalid program has been selected” or “Failed to open serial port.”



**Solution:** Use the following steps:

1. Clear cache and cookies
2. Double check and make sure “Experimental Web Platform Features” are enabled
3. Close chrome
4. Reopen Chrome and restart the login process for remote.robotevents.com
5. Plug in robot to computer and turn on robot

**Solution:** Close all programs that use a connection to the Robot Brain/Controller (e.g. coding software) and then relaunch the Live Remote Tournament system and log in.

**Solution:** If using a USB HUB, connect the controller directly to the computer.

**Solution:** Switch to different USB port on computer.

**Solution:** Switch out cable with another.

**Solution:** Use the following steps:

1. Log out of the Live Remote Tournament System
2. Clear cache and cookies
3. Turn off Robot
4. Close Google Chrome
5. Plug Robot into Computer
6. Turn on Robot
7. Start Google Chrome
8. Log in to remote.robotevents.com
9. Click on “join event”
10. Run Program on Controller
11. Select audio and video as applicable
12. Select connect controller

**Solution:** Re-download the program on the brain.

**Solution:** Switch out the controller.

## V5 Autonomous Period Issues

### Autonomous Running

**Problem:** The teams have issues with their autonomous running. For example, autonomous not running at all, autonomous not running for the full 15 seconds, not able to drive the robot during driver control, etc. The teams should follow the following steps to resolve the issue:

- a. If the team has a programmable Pre-Autonomous:
  - i. **Solution:** The team will need to deactivate this and set up their robot program without the Pre-Autonomous. Attached is a link from the VEX Forums explaining the process for this:  
<https://www.vexforum.com/t/competition-code-and-user-created-tasks/88616>
- b. If the team does not have a programmable Pre-Autonomous:
  - i. **Solution:** The team should copy their current code into a new file in VEXcodeV5, VEXcodeV5Pro, or VEXcoding Studio
  - ii. **Solution:** Ensure the team is running the most up-to-date firmware on the robot and the controller.
  - iii. **Solution:** Ensure the clock on the computer is synchronized to the time zone they are located in. Refer to [“In-Match Timer” section](#).
  - iv. **Solution:** Have the team review their code to ensure it is written properly.

### Accessibility

#### Alliance Selection Process

**Problem:** The teams are not able to select an alliance partner and/or accept alliance invitations due to buttons being missing or greyed out.

- a. **Solution:** If the team is the alliance captain, the team should refresh the browser and the “choose partner” button should appear next to each time available to be selected.
- b. **Solution:** If the team is being picked by an alliance captain, the team should refresh their browser. If the team is being picked AND refreshing doesn’t populate the buttons, the EP should cancel the team’s invitation and have that team select a partner again.

#### Other Problems

**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 (903) 457-0444 to assist 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.