

LabQuest Viewer[®] Software

LabQuest Viewer is computer software that displays and controls the screen of a LabQuest using a computer. When used in conjunction with a projector, this software can be used to demonstrate the functions of LabQuest and to enhance group presentations. This software can also be used to monitor student use of LabQuest devices in your lab, view and control a LabQuest remotely, and easily capture LabQuest screen images for use in lab instructions or assessment questions.

Supported Devices

- LabQuest 3
- LabQuest 2
- Original LabQuest (requires Vernier Wi-Fi USB Adapter, sold separately)

License Information

Purchase of LabQuest Viewer software entitles you to install it on every computer in your school or, for post-secondary institutions, department. Installation to local machines over a network is allowed. The license is limited to a single campus if your institution has multiple campuses.

Set up LabQuest Devices to work with LabQuest Viewer

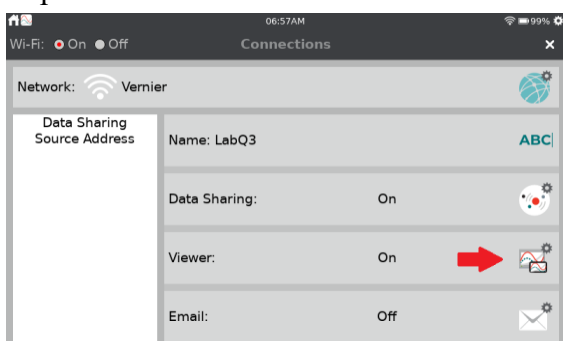
Set up LabQuest 2 or LabQuest 3 to Work with LabQuest Viewer Over Wi-Fi

In order to use LabQuest Viewer to view LabQuest 2 or LabQuest 3 wirelessly, LabQuest units must be on the same Wi-Fi network as the computer running LabQuest Viewer software.

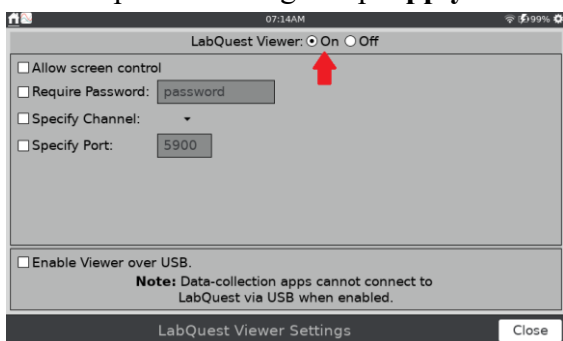
Note: Instructions for setting up Wi-Fi on LabQuest 2 or LabQuest 3 can be found at www.vernier.com/til/3396

Once LabQuest is connected to Wi-Fi, follow these instructions to set up sharing to LabQuest Viewer.

1. On LabQuest, launch the Connections app.
LabQuest 2—Tap the Wi-Fi icon in the LabQuest toolbar
LabQuest 3—Tap the Connections App from the Settings screen
2. Tap the Viewer icon.



3. In the LabQuest Viewer Settings dialog, enable LabQuest Viewer (On). You can also enable optional settings. Tap **Apply** or **OK** to apply changes.



Optional Settings

- Select the Allow screen control check box to allow LabQuest to be controlled remotely via LabQuest Viewer.
- Select the Require Password check box to require a password from LabQuest Viewer in order to connect. Tap the password entry field to enter the desired password.
- Ignore the option to specify a channel. This feature is no longer used.
- Ignore the option to specify a port. In most cases, the default port of 5900 works fine. If you are unable to connect to LabQuest using the default port, contact your network administrator to determine if a different port is required.
- Use Enable Viewer over USB when connecting via Wi-Fi is not an option.
Note: This option cannot be used with LabQuest Viewer app on an iPad.

Set up LabQuest 2 or LabQuest 3 to Work with LabQuest Viewer Over USB

Use LabQuest Viewer software with LabQuest 2 or LabQuest 3 connected via USB when Wi-Fi is unavailable or unreliable.

Note: This option is not available for original LabQuest or with LabQuest Viewer on iPad®.

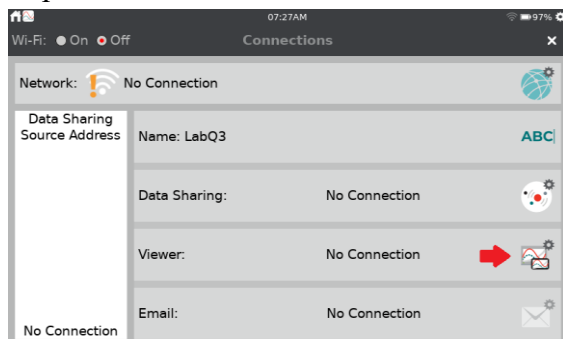
To set up the USB connection on LabQuest, follow these instructions.

1. On LabQuest, launch the Connections app.

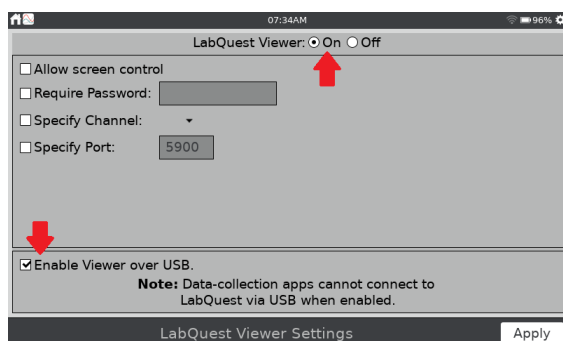
LabQuest 2—Tap the Wi-Fi icon in the LabQuest toolbar

LabQuest 3—Tap the Connections App from the Settings screen

2. Tap the Viewer icon.



3. In the LabQuest Viewer Settings dialog, enable LabQuest Viewer (On).
4. Select Enable Viewer over USB. You can also enable other optional settings. Tap **Apply** or **OK** to apply changes.



Optional Settings

- Select the Allow screen control check box to allow LabQuest to be controlled remotely via LabQuest Viewer.
- Select the Require Password check box to require a password from LabQuest Viewer in order to connect to the LabQuest. Tap the password entry field to enter the desired password.
- Ignore the option to specify a channel. This feature is no longer used.
- Ignore the option to specify a port. In most cases, the default port of 5900 works fine. If you are unable to connect to LabQuest using the default port, contact your network administrator to determine if a different port is required.

5. Connect LabQuest to the computer running LabQuest Viewer software using the USB cable included with your LabQuest.

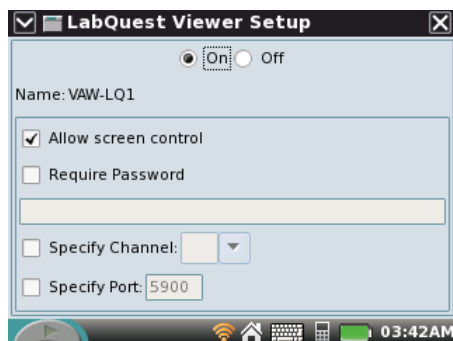
Set up Original LabQuest to Work with LabQuest Viewer

In order to use LabQuest Viewer to view an original LabQuest, the LabQuest must be on the same Wi-Fi network as the computer running LabQuest Viewer software.

Note: Instructions for setting up Wi-Fi on an original LabQuest with a Vernier Wi-Fi USB Adapter are available at www.vernier.com/til/2479

Once LabQuest is connected to Wi-Fi, follow these instructions to set up sharing to LabQuest Viewer.

1. On LabQuest, tap the Home icon.
2. Select Control Panel ► Viewer Setup.



3. In the LabQuest Viewer Setup dialog, enable LabQuest Viewer (On). You can also enable optional settings. Click the Close button, ✕, to apply changes and exit the dialog.

Optional Settings

- Select the Allow screen control check box to allow LabQuest to be controlled remotely via LabQuest Viewer.
- Select the Require Password check box to require a password from LabQuest Viewer in order to connect to LabQuest. Tap the password entry field to enter the desired password.
- Ignore the option to specify a channel. This feature is no longer used.
- Ignore the option to specify a port. In most cases, the default port of 5900 works fine. If you are unable to connect to LabQuest using the default port, contact your network administrator to determine if a different port is required.

Set up LabQuest Viewer Software

Set up My Lab

Use My Lab Setup to add, arrange, and remove LabQuest devices shown in the My Lab view. These settings are retained and used each time you launch the software.

1. Click the Setup My Lab icon, , from My Lab view.

Note: LabQuest devices must be configured to work with LabQuest Viewer before setting up My Lab.

Add LabQuest to My Lab

- Click the desired LabQuest from the list of available devices to include it in My Lab. Each LabQuest in My Lab will display a live image of the device screen.
- If the desired LabQuest is not displayed in the list, manually add the device by typing the LabQuest Name or IP address in the field provided below the list. Click the Add button, , to connect.

Arrange LabQuest Layout

- Drag and drop a LabQuest into the desired position.

Remove LabQuest

- Click a specific device's Remove button, , to remove it from My Lab.
- Click the Remove All button, , located on the taskbar, to remove all LabQuests from My Lab.

2. Click the Close button, , to exit My Lab Setup.

Present LabQuest

Present a Single LabQuest Full Screen

From My Lab, double-click the desired LabQuest to present the device full screen.

Options while presenting a single LabQuest

- Click the full-screen image to control the LabQuest.
- Use the computer keyboard to enter text in dialogs and notes.
- Click the Previous or Next buttons to change the LabQuest you are viewing. The order the devices are displayed is based on their arrangement in My Lab.
- Click the Exit Full-Screen button, , to return to My Lab.

Present Multiple LabQuest Devices

1. Click up to four LabQuest devices from My Lab to select for presentation.
2. Click the Present button, , to display the selected devices side-by-side. The order they are displayed is based on their arrangement in My Lab.

Options while presenting multiple LabQuest devices

- Click any of the presented images to control the LabQuest devices.
- Use the computer keyboard to enter text in dialogs and notes. Keyboard entries will go to the LabQuest last clicked as indicated by the keyboard icon, .
- Click a device's Show Full Screen button, , to view that device full screen.
 - Click the Previous or Next buttons to view one of the other selected LabQuest devices.
 - Click the Exit Full Screen button, , to view all the selected devices again.
- Click the My Lab taskbar button, , to return to My Lab.

Capture a LabQuest Screen Image

Click the Share button to copy and share images. Sharing options include: Save, Copy, Email, and Print.

- Sharing from My Lab creates an image of LabQuest Viewer software as it appears on the computer screen.
- Sharing a full-screen LabQuest creates an image of the LabQuest screen.
- Sharing multiple-presented LabQuest devices creates an image of the selected LabQuest screens.

Troubleshooting

The list of available LabQuest devices is empty.

When no LabQuest devices are shown in the list, try the following:

- Verify your computer and LabQuest devices are turned on and connected to the same network.
- Verify LabQuest Viewer has been enabled on your LabQuest devices.
- Click the Refresh button, , to refresh the list.
- Restart LabQuest Viewer software.
- Connect the computer and LabQuest devices to a different network.

Note: LabQuest Viewer uses network device discovery to find LabQuest devices on your network. Changes to your device's network settings will reset the discovery process. This can take several minutes to regenerate the list of available devices. If connection issues persist, check with your network administrator to ensure your network supports multicast device discovery.

LabQuest is not shown in the My Lab Setup list.

When a specific LabQuest device does not appear in the setup list as expected, try the following:

- Verify LabQuest is turned on and connected to the same network as the computer.
- Verify LabQuest is set up to work with LabQuest Viewer software.
- Click the Refresh button, , to refresh the list.
- If necessary, manually add the device by typing the LabQuest Name or IP address in the field provided below the list. Click the Add button, , to connect.

I receive a Duplicate Names warning when connecting LabQuest to My Lab.

When two or more LabQuest devices on the network have the same name, you will receive a Duplicate Names warning when adding one of these devices to My Lab. Adding the device will work for the current session but will not be remembered when the software closes.

Use unique names for all of your LabQuest devices.

How do I determine my LabQuest name?

LabQuest 2 or LabQuest 3

1. Launch the Connections app. The name is displayed in the Name field.

LabQuest 2—Tap the Wi-Fi icon in the LabQuest toolbar

LabQuest 3—Tap the Connections App from the Settings screen

2. Tap the Name field to change the name of the LabQuest.

Original LabQuest

1. Tap the Home icon and then select Control Panel ► System Information.
2. Tap the Device tab. The name is displayed in the Device name field.
3. Tap the Name field to change the name of the LabQuest.

How do I determine my LabQuest IP address?

LabQuest 2 or LabQuest 3 Connected via Wi-Fi

1. Launch the Connections app.
LabQuest 2—Tap the Wi-Fi icon in the LabQuest toolbar
LabQuest 3—Tap the Connections App from the Settings screen
2. The IP address is displayed in the lower-left corner of the screen.

LabQuest 2 or LabQuest 3 Connected via USB

1. Launch the Connections app.
LabQuest 2—Tap the Wi-Fi icon in the LabQuest toolbar
LabQuest 3—Tap the Connections App from the Settings screen
2. Tap the Network icon (top-right corner of the screen).
3. The IP address is displayed below the list of available networks
LabQuest 2—the IP address is labeled "usb0"
LabQuest 3—there are separate IP addresses for Windows and macOS computers

Original LabQuest

1. Tap the Home icon and select Control Panel ► Network.
2. The IP address is displayed in the Network Status box.

LabQuest password does not let me connect to LabQuest.

1. Verify you are entering the correct, case-sensitive password. To find the password:
LabQuest 2—Launch the Connections app (Home screen), then tap the Viewer gear.
LabQuest 3—Launch the Connections app (Settings screen), then tap the Viewer icon.
Original LabQuest—Tap the Home icon, then select Control Panel ► Viewer Setup.
2. Verify you are connected to the correct LabQuest by checking the name and IP address of the LabQuest.
3. Deselect the Require Password option in LabQuest, and then tap **Apply** or **OK** to disable the password feature. For the Original LabQuest, close the Viewer Setup dialog.
4. Reconnect the LabQuest Viewer software to your LabQuest (required if password is disabled while you are connected).
 - a. Return to My Lab and click the Setup My Lab taskbar button, .
 - b. Remove the LabQuest from My Lab, then add it back.

Is My LabQuest Viewer Software Up to Date?

Complete the following steps to determine if you are running the latest version of the LabQuest Viewer software. **Note: The software does not update automatically.**

1. Ensure your computer is connected to a network with internet access.
2. Check for LabQuest Viewer software updates on your computer.
Windows® – Select About LabQuest Viewer from the Help menu.
macOS® – Select Check for Updates from the LabQuest Viewer menu.
3. Review the automated version check results displayed in the dialog. If an update is available, a link to the latest download will be provided.

LabQuest is displayed in My Lab with a warning symbol.

The warning symbol is displayed when LabQuest Viewer is unable to connect to a LabQuest in My Lab. Try the following:

- Verify LabQuest is powered on.
- Verify LabQuest and the computer are on the same network and the Wi-Fi signal strength is good. Relocate devices if necessary.
- Reboot the LabQuest.
- Connect the computer and LabQuest to a different network.

Note: If using LabQuest 2 or LabQuest 3, try connecting over USB instead of Wi-Fi.

What I am seeing on LabQuest Viewer does not match my LabQuest screen.

If what you are seeing on the LabQuest Viewer does not match the connected LabQuest screen, try the following:

- Verify you are connected to the correct LabQuest by checking the name and IP address of the LabQuest.
- Reconnect LabQuest Viewer software to your LabQuest.
 1. Return to My Lab and click the Setup My Lab taskbar button, .
 2. Remove the LabQuest from My Lab, then add it back.

Why is IP Address and not device name displayed for some LabQuests?

When you manually add LabQuest using the IP address, the network may not be able to determine the device name. In that case, the IP address is used to identify the device.

I frequently lose connection with LabQuest.

If you frequently lose connection with a LabQuest, try the following:

- Verify the Wi-Fi signal strength is strong on both the LabQuest and the computer. Relocate devices if necessary.
- Reboot the LabQuest.
- Have your network administrator troubleshoot possible network issues.
- Connect the computer and LabQuest devices to a different network.

Note: If using LabQuest 2 or LabQuest 3, try connecting over USB instead of Wi-Fi.

I can see the LabQuest screen from LabQuest Viewer, but cannot control it.

1. Verify the Allow screen control option is enabled in LabQuest.

LabQuest 2 or LabQuest 3

- a. Launch the Connections app.

LabQuest 2—Tap the Wi-Fi icon in the LabQuest toolbar

LabQuest 3—Tap the Connections App from the Settings screen

- b. Tap the Viewer icon.
- c. In the LabQuest Viewer Settings dialog, select the Allow screen control check box, then tap **Apply** or **OK**.

Original LabQuest

- a. Tap the Home icon.
 - b. Select Control Panel ► Viewer Setup.
 - c. In the LabQuest Viewer Setup dialog, select the Allow screen control check box, then click the Close button, ✕.
2. Verify you are connected to the correct LabQuest by checking the name and IP address of the LabQuest.
 3. Reconnect LabQuest Viewer software to your LabQuest (required if screen control is enabled while you are connected).
 - a. Return to My Lab and click the Setup My Lab taskbar button, ⚙.
 - b. Remove the LabQuest from My Lab, then add it back.

Where can I get more information about troubleshooting network issues?

View additional articles in our online Technical Information Library at www.vernier.com/til/2669

Note: For more help, contact Vernier Technical Support at support@vernier.com

Acknowledgments

Portions of this application are powered by the following:

- **JsonCpp**
- **libc++**
- **libcurl**
- **NSString+CCL Format library** - *macOS® only*
- **TinyVNC**
- **WPFSpark** - *Windows only*

Note: License information is available by contacting us at support@vernier.com



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