Necessary check steps:

First, let's be clear, when Oculus Link is unsuccessful, we can't immediately determine that a faulty cable is causing the problem. There are many reasons for the unsuccessful connection, such as incompatible specifications of the computer's graphics card, problems with the computer's USB 3.0 port, and Meta Quest 2 version upgrade problems. First, please check whether there are any problems with the following practices:

1. See if your GPU is compatible with Quest 2 by looking at "Oculus Link Compatibility". Many problems with lag, glitching, etc., come down to the GPU being too low-end for what you're trying to do.

2. To use Oculus Link, you need the Oculus PC app. Once you've downloaded the PC app, ensure that the Oculus PC software version is up to date and that your Meta Quest is running the latest operating system.

3. If you can't enable the Link with a cable connection, make sure AirLink is turned off in the headset under "experimental settings".

4. Be aware that if you connect your cable to your PC with an adapter, that adapter must also be good quality and USB3. We recommend that you do not use an additional adapter or hub for connection, which will affect the data transfer rate and cause Oculus Link to fail.

5. It is recommended to charge your Quest 2 in advance, as a low battery on Quest 2 will cause unstable connection performance and cause disconnection issues.

If you have checked the above operations, and they are all correct, you still cannot connect the VR headset to the computer. Some possible problems and corresponding solutions are given below. Please refer to the corresponding solutions according to your actual problems.

USB and PC connection

1. **My computer won't recognize Oculus Link when it's connected.**

If you're having trouble getting your computer to see or recognize Oculus Link, try **reinstalling the Link driver** on your computer. You can find the installable Oculus driver file at the following path: c:\Program Files\Oculus\Support\oculus-drivers\oculus-driver.exe.

2. **Oculus Link isn't working with my laptop.**

You may see a brief black screen on your headset before returning to your Meta Quest home page. On your computer, in the Devices tab, you may always see an orange "**General device problem**" error. When entering this state for the first time, you may also sometimes see a notification on your PC: “Hardware Notification: Something went wrong, and Oculus Link stopped working.”.

Restarting your PC can often fix the issue.

3. **Oculus Link randomly disconnects.**

The Meta Quest or Meta Quest 2 will often randomly disconnect from the PC and revert to the Meta Quest 2 home screen. To fix this, you need to **deny storage permission** when connecting the cable. Therefore, any time you connect the Oculus Link cable from your PC to

the Meta Quest or Quest 2, you need to select Deny Storage Permission on the permissions pop-up dialog on your Quest 2.

When you allow storage permission, the headset disconnects the virtual reality interface any time Windows checks for new media files on it. That's a built-in feature in Windows when you connect cameras or phones to get pictures or video off of them, but it doesn't work so well for a device like a Meta Quest.

If you're still facing disconnection issues after denying storage permission, please check that you are using the **Velcro strap** to fix the cable and the headset correctly. You might also want to try a **different USB port**. Like cables, ports can go bad, especially if you have a cable connecttion and it gets tugged too hard. You should also always **keep your drivers up to date** by visiting the Windows Update section of your PC and downloading any new motherboard or display drivers. Out of date or incompatible drivers often cause all sorts of problems.

4. I'm using a USB 3 cable in a USB 3 port, but it's showing up in the Oculus desktop app as USB 2.

If you're using a USB 3 cable in a USB 3 port, but it's being seen as USB 2, try the following troubleshooting tips:

- If you're using a USB A to USB C adapter, make sure that it supports USB 3.
- Some adapters are only USB 3 if the USB cable is seated in the adapter in one direction. The other may be USB 2.
- If you're using a USB C to USB C cable, try unseating and reseating the cable into the port using different orientations, as some ports may only see USB 3 in certain orientations.
- If you're using a PCI-E card, make sure that the cable is fully inserted by unseating and reseating it.

5. I've updated both my Oculus PC software and my Meta Quest, but I'm still not able to use Oculus Link.

If you still can't enable Oculus Link after updating your software, you can try these troubleshooting tips:

- If you don't see Add Meta Quest as the device on the PC software, log out of the PC software and log back in.
- If you don't see the Enable Link pop-up on the PC software, log out of the PC software and log back in.
- If you don't see the Enable Link option under Settings on Meta Quest, completely power off the headset and restart it.

6. I'm experiencing performance issues with Oculus Link after adjusting my graphics preferences.

Oculus Link allows you to fine-tune your graphics preferences via the Oculus desktop app. As a general rule, the more you crank up display options like refresh rate and render resolution, the more the overall performance of Link can be negatively impacted.

If you find that Oculus Link looks choppy (screen stuttering, frames dropping, etc.), try the following:

1) Open the Oculus app on your Computer.

2) Click **Devices** on the left side of the app.

3) Click **Meta Quest and Touch**.

4) Click **Graphics Preferences**.

5) Click **Reset to default**.

6) Click **Save and Restart**.

Keep in mind that if you've previously adjusted any settings for Link with the Oculus Debug tool (including Encode Bitrate, Encode Resolution Width, Pixel Per Display), changing the graphics settings above can negatively impact your performance.

To fix this, set all numerical values you changed to '0' (zero) and then restarted the Oculus Desktop app.

Audio、mic and Image Issues

1. I'm having trouble with the sound or mic when using Oculus Link.

If you don’t hear any sound or are having trouble with your mic when using Oculus Link, make sure that your software is up to date and that the volume is not muted on the device and computer. Next, check the audio input and output sources for both your headset and your PC.

To check the audio input and output for your Meta Quest:

1) Open the Oculus app on your computer.

2) Click **Devices** in the left side menu and then select **Meta Quest and Touch**.

3) Below **Audio Output in VR**, make sure your Meta Quest is selected.

To check the audio input and output for your PC:

1) Click the Speaker icon  in the taskbar in the bottom-right part of your screen.

2) Click the **^** arrow to open a list of audio devices connected to your computer.

3) Check that your audio and mic are both set to **Oculus Virtual Audio Device**.

Additionally, if you are using any third-party VR software on your PC, make sure that **Oculus Virtual Audio Device** is set as your audio input and output source there as well.

2. No Headphones Detected Error

If you've received an error message while using your Meta Quest 2 with Link, please try these troubleshooting steps:

Enabling the Virtual Audio Device

While the error message and your PC both reference headphones as the issue, there's a high probability that the issue isn't with physical headphones. When using Link, the Oculus desktop app sees the Virtual Audio Device as a physical audio device (like headphones). To fix the issue:

1) On your PC, navigate to **Windows Settings** > **Sound** > **Manage sound devices**. This should show all of the sound devices currently being recognized and prioritized by your PC.

2) Select **Oculus Virtual Audio Device**

3) If the device is currently disabled, enable it, then restart your computer.

Updating Drivers

If this method doesn't work, make sure that you have the latest drivers and that your Meta Quest headset is also up to date. To check for driver updates:

1) Close the Desktop app.

2) Press the **Windows key** + **R** on your keyboard to open the Run command.

3) Enter **C:\Program Files\Oculus\Support\oculus-drivers**.

4) Open **oculus-driver**.

5) Open the Oculus app and then try to connect your headset again.

Your Meta Quest will receive software updates when plugged in and not in use.

3. I'm on the Public Test Channel (PTC), and Oculus Link isn't working.

If you've opted into PTC using the PC software, Oculus Link will not work properly over the next few releases. Please disable PTC access if you intend to utilize Oculus Link.

4. Poor image quality on wired Oculus Link.

Poor image quality on a wired Oculus Link setup is normally caused by a low bitrate, which means that your PC is compressing the image before sending it over the cable to your Meta Quest 2. Despite being wired, Oculus Link defaults to a bitrate of 150Mbps. While that's a lot higher than streaming apps like YouTube, it's still going to present some compressed imagery, especially noticeable when looking at the color red or any delicate details. Likely, Oculus chose this fairly conservative number to preserve compatibility with the broadest range of PCs. Still, more powerful PCs can easily bump this number up to boost image quality.

You'll need to use the Oculus Debug Tool to adjust the bitrate. Here are a few easy steps to follow:

1) Open up File Explorer in Windows and navigate to **C:\Program Files\Oculus\Support\oculus-diagnostics**.

2) Open up OculusDebugTool in this folder.

3) Under the Oculus Link section, select Disabled next to Encode Dynamic Bitrate.

4) Change Encode Bitrate (Mbps) to 250. The default value is around 150, but Oculus hasn't officially published this value.

5) Close the Oculus Debut Tool.

6) Unplug your Meta Quest 2 and Plug it back in to restart the Oculus Link.

Your image quality should be significantly better than it was before. Facebook suggests setting the bitrate no higher than 250Mbps, although the maximum number supported is 500Mbps. You can try experimenting with values between 250-500 to see if you notice a quality change, although it's likely that you'll affect performance beyond 350Mbps.

5. Stuttering on wired Oculus Link.

If your Oculus Link experience has become stuttery or jumpy, you can try a few things. First off, make sure your room has adequate light for the Meta Quest 2 to track. Those cameras need light to see the environment around them, and insufficient light could cause tracking issues.

If you're not using an official Oculus Link cable, it's entirely possible that the cable you're using can't provide enough bandwidth for a consistent experience. If you've adjusted the bitrate manually, as in the steps above, go back and set Encode Dynamic Bitrate to enabled. This will allow the Oculus Link software to automatically adjust the image quality based on available bandwidth, delivering a more consistent experience.

If you haven't adjusted the bitrate before, you might need to lower the refresh rate of the Oculus Link signal on the Meta Quest 2. The original Meta Quest 2 only supports one refresh rate (72Hz), so this step only applies to Meta Quest 2. To do that, follow these steps:

1) On your PC, open the Oculus software.

2) Select Devices on the left side, then select Meta Quest 2 from the list of connected devices.

3) On the menu that pops up on the right side, select Graphics Preferences.

4) Select 72Hz to bring the refresh rate down to its lowest possible setting.

5) If you're still experiencing issues, uncheck automatic resolution and scale the resolution lower than 1.0x.

6) A lower resolution will deliver a softer image and will improve performance.

If you're still having trouble with stuttering, try updating your motherboard and display drivers. Otherwise, your PC may not be powerful enough to play PC VR games without performance issues.