# VR Reality Bike Riding Experience User Manual

Virtual bike-riding experience a new way to reach drivers

Many truck drivers work similar hours to other New Zealanders and return home each night. But many are out on the road for days at a time, picking up and delivering loads around the country, so they struggle to attend Share the Road workshops.

We are developing resources they can access either online or at the yard, which share our key messages and stories from drivers and bike riders about the benefits of good road-sharing.

Recently, our virtual reality bicycle-riding experience was tested by National HSE Manager Guy Smith (pictured holding the VR Headset) and Training Manager from Waste Management Limited Glyn Davies.
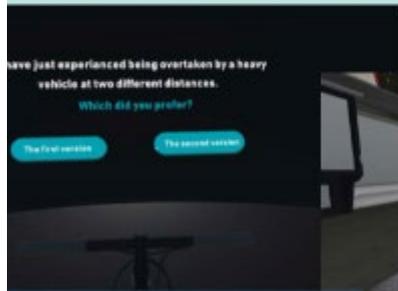
"The focus on increasing safety awareness around cyclists and trucks has progressed well with the addition of a virtual reality training device that we were lucky enough to try out. Both Glyn and I feel this will be a great training tool to enable our drivers to understand what it feels like riding a bicycle around a heavy truck. We both look forward to using the device with our teams and seeing the new training packages as they become available."

Contents

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Before you start:

You will need:
- To read through all the instructions, you will save time in the long run doing this!
- A Quiet room and swivel seat
- A Driver
- The Virtual Reality Headset and Controller
- To unlock the padlock on the travel case, use code 213
- A phone, tablet or computer with internet connection

Each driver will need 10-15mins to complete the experience and answer the short online knowledge test. We recommend that the driver trainer stays close by to answer questions.

Please book the headset using this form: https://forms.gle/TZmV2HKKcs45q4ZF8

There are more in depth instructions on operating and caring for the Oculus Headset and Controller in the Basics to Oculus Go section.

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How to open the VR App Experience:

Controller:

The controller is not needed for the simulations, however it will be needed to initially load the application and shut down the application.

To shut down the application while in it, press the **HOME** button.

To open the sideloaded Virtual Reality experience, follow:

Using the front trigger on the controller, point at and click on the following

Navigate > Library > Unknown Sources > Cycling Action Network

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How to Start the experience:

1. Be Seated
2. Look towards the Ready Button

When the introduction is completed, you will be shown through the three main simulations which will then take you to the ending scene.
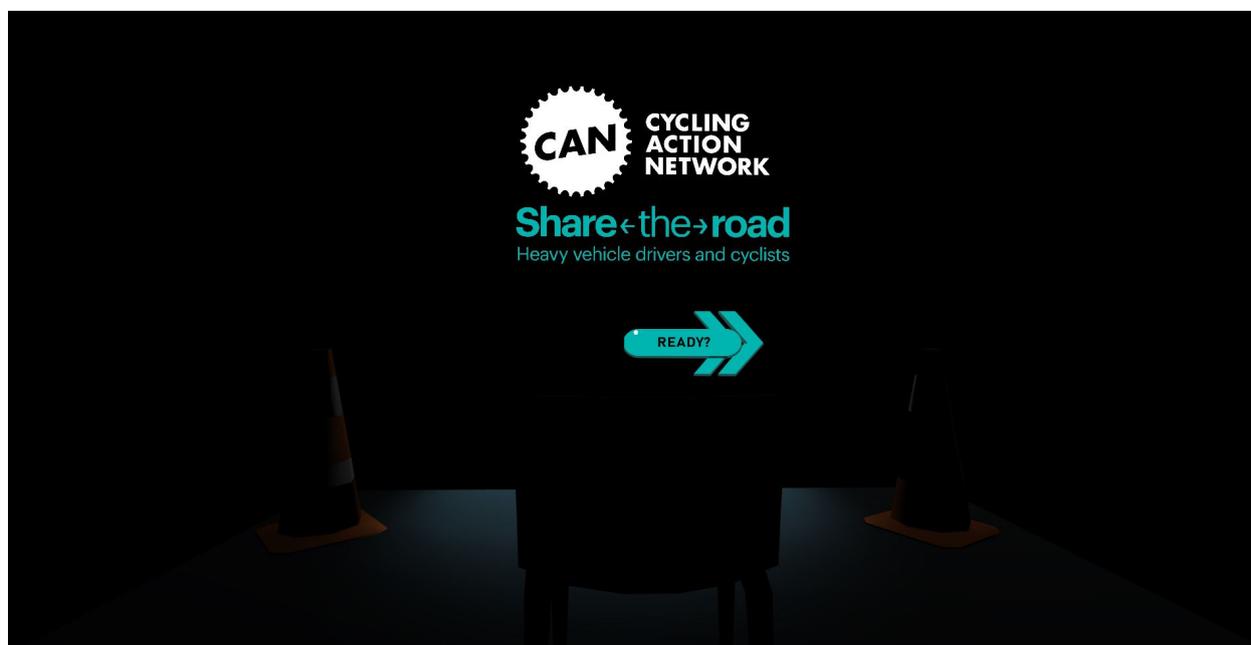
Controlling application & Buttons:

When you look around, a white circle reticle will follow your gaze. This is how you select buttons.

Buttons will be blue and will animate when you gaze over them. Hold your gaze to select the button.

Movement:

When entering the three different simulations, you will be moved forward along a straight street. We recommend you remain seated during this time. You may experience motion sickness, please be aware that you can remove your headset at any time if you feel a high level of discomfort. Go to Page 12 for more information on avoiding nausea.

The movement will allow you to look around in 360 degrees.

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LOOK BEHIND YOU FOR THE FOLLOWING TRUCK

LOOK BEHIND YOU FOR THE FOLLOWING TRUCK

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Ending Scene:

The ending scene will allow you to choose which simulation to re-try. Buttons work as followed:

- **Introduction:** You will go to the introduction scene, where you can then play the three simulations in sequence - bringing you back to this scene.

- **Driver Following Rider:** You will go to the Driver Following Rider simulation - brining you back to this scene.

- **Rider Road Positions:** You will go to the Rider Road Positions simulation - brining you back to this scene.

- **Driver Passing Rider:** You will go to the Driver Passing Rider simulation - brining you back to this scene.

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Driver Following Rider:

VR COMFORT LEVEL: LOW RISK

VERSION 01

Sometimes you will need to follow bikes in your vehicle and the way you follow affects the cyclists behaviour. Cyclists can feel like their personal space is being invaded when drivers get too close on the road, and the only way they can respond is to fight, or freeze, none of which are helpful.

VERSION 02

The second version is about the same as the 4 second following distance that the NZ Road Code recommends for heavy vehicles following lighter ones. It increases the changes of people on bikes being able to slow down and turn off the road.

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Rider Road Positions:

VR COMFORT LEVEL: <mark>MODERATE</mark>

VERSION 01

As a professional driver you will have seen many people on bikes riding out from kerb and some of you might have thought "Idiots! they are making it so hard for me to drive and pass." There are some good reasons for people on bikes to do this.

VERSION 02

The second version is about 1 meter from the road edge, and riders are encouraged to use this position. It allows them to ride in a straight line, which makes them predictable and therefore easier to pass. It also allows them to travel a little faster so they spend less time on the road and means that they can be seen by drivers earlier, which gives them more time to plan a safe pass.

People on bikes are also encouraged to be about 1m from parked cars to avoid dooring.

Diver Passing Rider:

VR COMFORT LEVEL: <mark>MODERATE</mark>

VERSION 01

Bikes and motor vehicles can travel at quite different speeds, so you need to overtake them when it's safe.

VERSION 02

The second version gives the rider 1.5 meters, which is recommended in the NZ Road Code. It protects the rider from the push of air at the front of the vehicle, and the suck of air at the back. It also gives the rider a little space if they need to wobble to get around a hazard on the road.

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Practical Solutions to Avoid Motion Sickness in Virtual Reality

Use a fan or open a window. This is my number one tip. If you do nothing else, you must do this.

Be seated. When you play standing, you increase the amount of movement and reach available for your body. We've all seen videos of someone in VR and they reach over too far, resulting in a face-plant on the floor. First, you don't need that added stress. Second, when you play seated, you're naturally confining your movements so that you're less likely to become disoriented. We suggest a swivel chair so you can turn around to look behind you with our having to strain your neck.

Close your eyes during transitions. If scene is moving in such a way that makes you feel uncomfortable, just close your eyes. You can also do this when it's transitioning from one screen (such as settings) to another.

Try natural remedies. Eat some ginger or a peppermint candy before you play. Both help deter nausea. Lemon and other freshly sliced citrus also has a nausea-reducing effect.

Control your breathing. This might sound silly, but make sure you breathe. Don't hold your breath. A lot of people don't realize that they hold their breath when they're nervous so just relax and breathe normally. Controlled breathing will help avoid nausea.

Lower the brightness on your headset. When you lower the brightness, you'll reduce sensory input a little bit and this might help your brain adjust more easily to the environment. For that matter, also make sure your volume isn't too high.

Eat and hydrate before you watch. This seems like an obvious solution to avoid nausea, but many people simply don't realize that VR watching is much more like traditional exercise than it is like using a computer. Your body needs food when you exercise so make sure you've eaten before you play. Also stay hydrated.

Stop when you feel bad. Although time in virtual can acclimate you to it, that doesn't mean you need to push through it once it has already started. If you're feeling nauseous, stop watching and try again later. You're not going to have a good experience if you're sick.

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Knowledge check:

Please ensure all drivers that have tried the Virtual Reality - Share The Road experience
take 3 minutes to complete this short test, it can be done on any smart phone, tablet or
computer with a basic internet connection:

https://forms.gle/dwy82FpX5uqHntpH6
When the driver has submitted the test, on the screen you will see the option "View score" to get
feedback on the answers they have given. Discuss as needed.

How to close the experience:

1. Press and hold the Power button on the Headset for 3 seconds
2. Use the Controller to select "Power off" inside the Headset

You can pause the presentation at any point by tapping the Power button, and then tapping
again when you are ready to start.

Return the Virtual Reality experience Kit:

Please courier to:

℅ Richard Barter - Share The Road
35 Seacliffe Road
Hillsborough 1042
Auckland
Courier: No signature required, leave at front door

Email any tracking numbers to:
Richard Barter
richard@can.org.nz

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Basics of Oculus Go:

Charging the Headset :

To charge the headset, use a Micro USB charging cable by inserting the micro plug into the left side port and the standard USB plug into a power plug.

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Turn Power On / Off :

Located on the top of the headset, there is a central button that has an indented 'power' icon. (Smaller of the two)
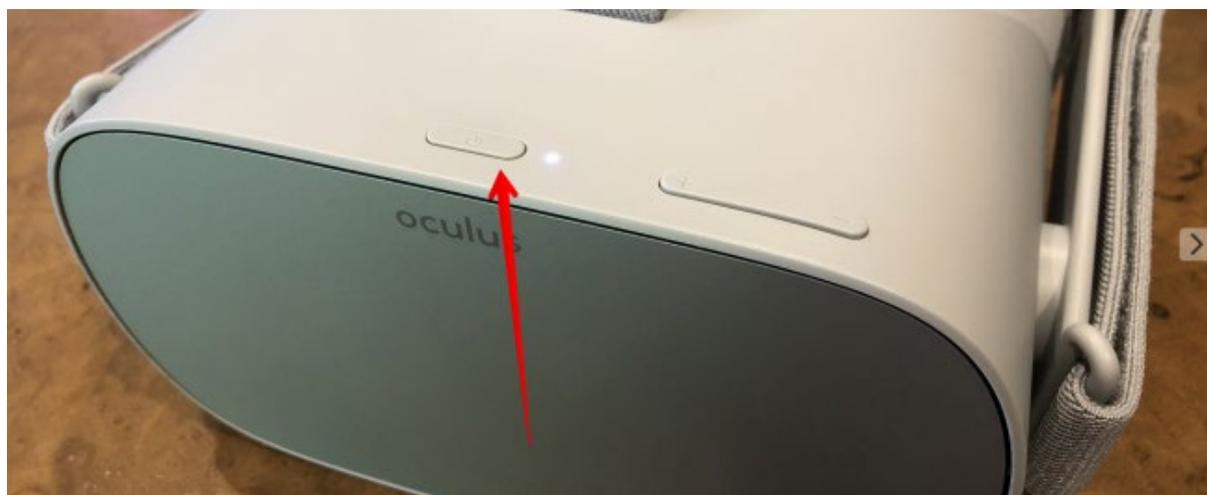
With your headset off:

Press and hold the power button for 10 seconds.
With your headset on:
Press and hold the power button until you see a shut-down menu in VR.
In the shut-down menu, select Power Off.

The headset will go into a sleep / standby mode if the headset isn't being worn.

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Depending on the colour and whether they're solid or blinking, the lights on your Oculus Go headset and controller will indicate the following:

Headset

Colour	State	Indication
Red	Solid	Low battery (less than 15%)
White	Solid	Screen is on
White	Blinking	Oculus Go is rebooting
Blue	Blinking	Connecting to app
Purple	Blinking	Factory reset
Orange	Solid	Headset is starting up
Headset is plugged in		
Green	Solid	Battery is charging (above 95%)
Orange	Solid	Battery is charging (below 95%)

Volume Control:

Located on the top of the headset, the volume control buttons are to the left power button. When the headset is powered on, pressing the left half will lower the volume while the right half will raise the volume. A control bar icon will also appear on the screen to display the volume control.

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Motion Controller:

There are 4 main buttons on the motion controller:

1. Trigger : Located on the bottom of the controller at the front. Press to select things.
2. Touchpad : This is located on the top of the controller at the front. Press to select things or swipe to browse. There is also directional button presses which can also interact with various options - Top, Bottom, Left, Right, Centre.
3. Back Button : This is located below the touchpad on the top of the controller. Press to go back to a previous screen or menu.
4. Oculus Button : This is located below the back button on the top of the controller. Press to go back to Oculus Home or press and hold to reset the headset's orientation.

If at any point the headset loses connection to the controller, just wave the controller in front of the headset and it should connect after a few seconds. It is recommended to realign the headset orientation after this process.

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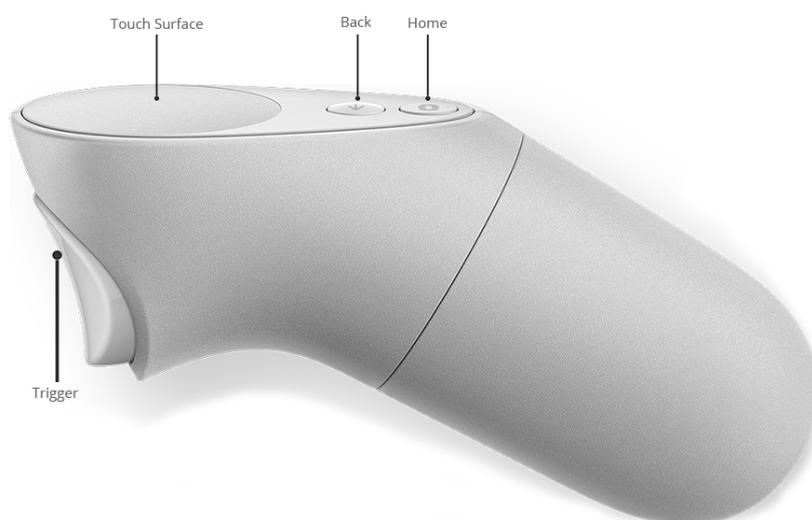
Main Menu Orientation:

There are different options within the menu bar that are important to understand while operating the Oculus Go. This bar will automatically appear on system start up and upon returning to the main menu.

Using the toolbar, you can view and adjust the following things'

Navigate
- Home: Return to your home screen.
- Library: View your library of apps and games.
- Store: Browse the Oculus Store to download and purchase apps and games.
- Browser: Open a web browser to access websites.
- Gallery: Use Oculus Gallery to view your photos and videos in VR.
- Search: Search for content on your Oculus Go.

People
- Profile: View your Oculus profile.
- Friends: View your friend list, requests and parties.
- Events: Browse and save upcoming events.

Sharing
- Go Live: Share your current view in Oculus Go live on Facebook.
- Record Video: Record a video of your current view in Oculus Go.
- Take Photo: Take a photo of your current view in Oculus Go.
- Share Photos: Share photos you've taken in VR on your Oculus Go to Facebook.
- Notifications: See new notifications.

Settings
- Brightness: Control the screen brightness.
- Volume: Control the volume.
- Reset View: Reset the angle and orientation of your view while using Oculus Go.
- Wi-Fi: Select your network and turn Wi-Fi on or off.

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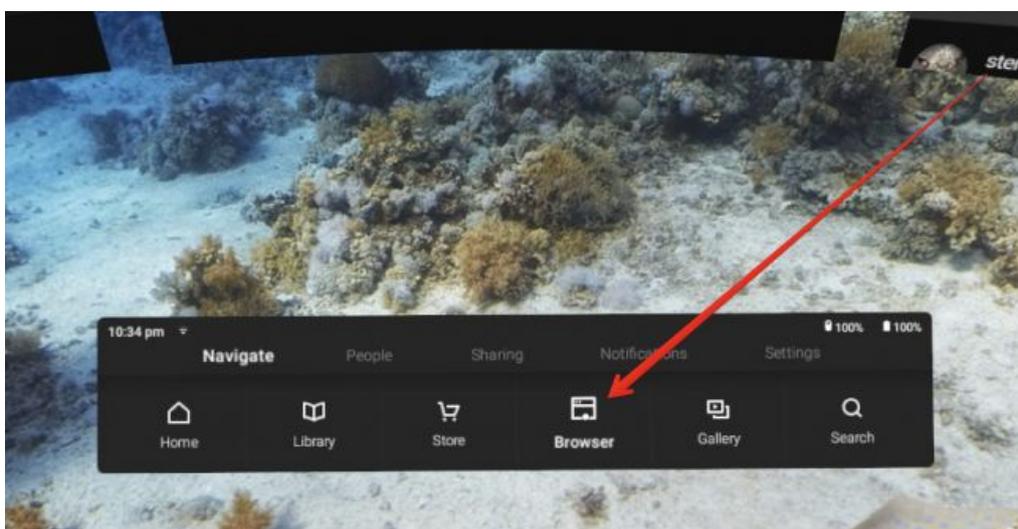
Controller Battery Life:

The Controller is battery powered, to access the battery pull down on the lower end of the controller to lease the cover. When you enter the headset, on the menu bar there are two different battery percentages shown. The one on the right shows the battery percentage of your headset, and the one on the left shows the battery percentage of your controllers. The controller percentage, however, has a battery level in the shape of the controller itself to make it even easier for you to tell the difference.

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Headset Straps:

If your strap comes loose from your headset:

- Run the strap through the bottom loop of your strap arm so that the fastener fabric faces outwards.
- Run the strap through the top loop of your strap arm.
- Fold the strap back around the top loop and press it to the fastener fabric at the desired length.
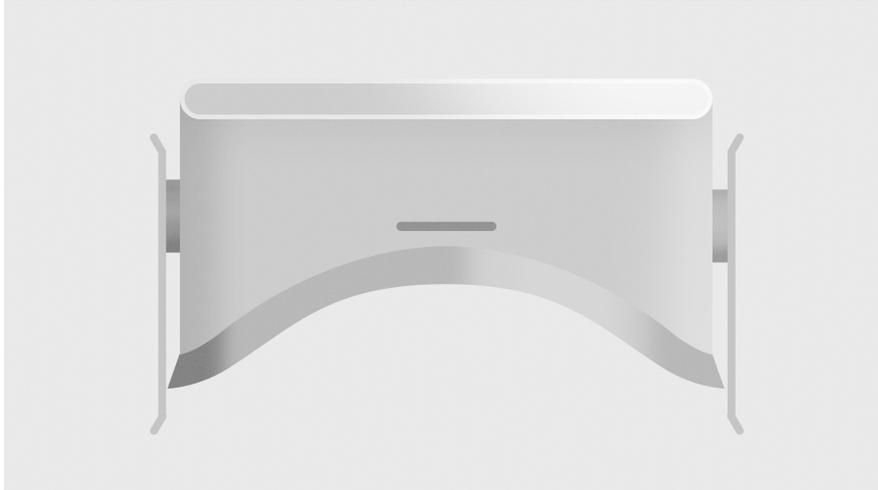
If your strap arm disconnects from your Oculus Go headset:

- Reposition the arm over the speaker mount with the front loop tilted inwards.
- Press the arm firmly back into the housing while tilting the rear loop towards the headset.
- Firmly press it until you hear the arm engage with the speaker mount with an audible "snap".
- If you have any trouble with reattaching the strap arm to your headset, you may need to push firmly using your palm while gripping the headset from both sides.

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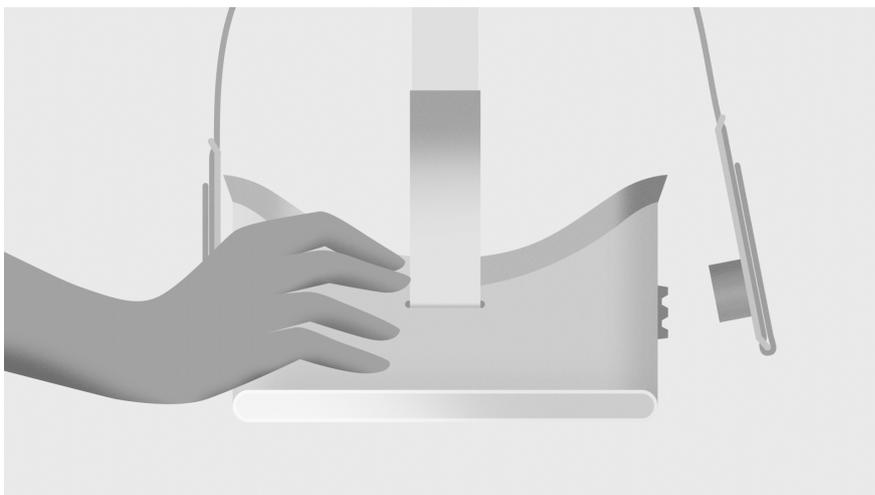
Wearing Glasses:

Before you wear your Oculus Go with glasses, check to make sure that the width and height of your frames match the following measurements:

- Width: 142 mm or less
- Height: 50 mm or less

Taking Care of your Go:

It's important to take care of your Oculus Go and secure it in a safe place. Bear in mind that your limited warranty doesn't cover normal wear and tear or physical damage.

To keep your Oculus Go safe, follow these tips:

- To avoid damaging your lenses and display, keep your Oculus Go away from direct sunlight. Your headset can be permanently damaged from less than a minute of exposure to direct sunlight.
- To avoid scratching your lenses, keep your Oculus Go away from sharp objects (e.g. cable tips, keys).
- To avoid damaging your headset or straps, be gentle when adjusting your headset and tightening the straps.
- Do not use or wear your headset when connected to the power adapter or while charging.
- To avoid general damage:
- Don't leave your Oculus Go in extremely hot locations (e.g. inside a car on a sunny day).
- Don't leave your Oculus Go near heat sources (e.g. a fireplace).
- Don't leave your Oculus Go near pets or small children.
- Don't eat, drink or smoke near your Oculus Go.
- Secure your Oculus Go in a safe place when you aren't using it.

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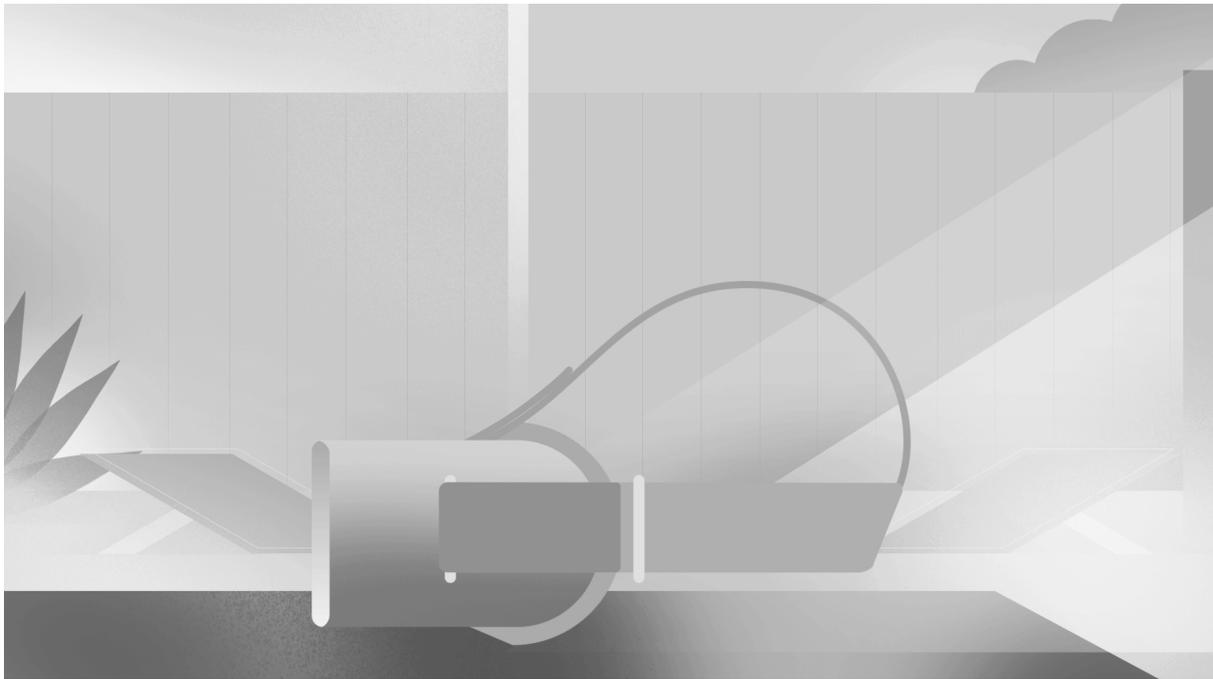
To clean your Oculus Go headset:

- Use a dry cloth to clean the outside of your headset.
- Use non-abrasive anti-bacterial wipes to clean the straps and facial interface foam. Don't use alcohol or an abrasive cleaning solution.

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To clean your Oculus Go headset lenses:

- Use a dry optical lens microfiber cloth to clean your headset lenses. Don't use liquid or chemical cleansers.
- Starting from the centre of the lens, gently wipe the lens in a circular motion moving outwards.

To clean your Oculus Go controller:

- Use a dry cloth or non-abrasive anti-bacterial wipes to clean your remote. Don't use alcohol or an abrasive cleaning solution.

Troubleshooting:

Issue - Controller won't show up

If you're having trouble with connecting or pairing your Oculus Go controller to your headset, try the following:

- Press any button to wake the controller while using Oculus Go.
- Press and hold the Oculus button to reorientate the controller.
- Press and hold the Oculus button and back button until the controller LED blinks and then fully lights up to repair the controller.
- Remove the battery and place it back into your Oculus Go remote.

Unpair and re-pair your Oculus Go controller

1. Open the Oculus companion app on your phone.
2. Tap Settings from the bottom menu.
3. Tap the headset you currently have paired.
4. Tap Controller, then tap the controller you currently have paired.
5. Tap Unpair Controller.

If you continue experiencing issues with pairing or connecting your Oculus Go controller, contact Customer Support.

Issue - Controller keeps moving or panning outside my control

If you're having problems with maintaining the viewing angle, screen position or controller position while using Oculus Go, you can resolve the issue by resetting your view from the Settings menu and resetting your controller orientation.

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To reset your controller orientation:

With your Oculus Go headset still on, point your controller straight ahead and press and hold the Oculus button until your controller orientation resets.

To reset your view:

With your Oculus Go headset on, from the home screen, select Settings from the toolbar menu.
Select Reset View.

Move your head to your preferred position, ensuring that the screen view feels natural and comfortable.

With your head in the preferred position, click the Trigger button on your Oculus Go remote to set your position.

If you continue experiencing problems, turn off your Oculus Go and turn it back on before trying again.

Issue - I'm having problems adjusting the straps on my Oculus Go

It's important to adjust your straps and headset carefully while using your Oculus Go.

- Don't pull on the straps excessively or with too much force.
- If you feel the strap arm coming loose or disconnecting from your headset, you're pulling the straps too hard or the headset is fitted too tightly on your head.
- Tighten straps one at a time.

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