

CIE Meta Quest Pro VR headset loan guidance

Guidance for users of CIE's Meta Quest Pro headset. It covers unboxing, charging, user setup and first steps in using the headset, along with ideas to start your exploration. This is a first draft at instructions: things may change, or crucial steps are missing or not quite right for your individual needs – please help improve this document.

Important – bring your own Internet!

VR headsets are not allowed on the Eduroam network yet. If you need to use the headset on campus, then you will need to connect it to a person hotspot. CIE's Digital Resources Team (DRT) has a mobile device available for loan for this purpose. It is possible that individual applications may not require internet connections – you will need to explore this.

Initial Setup

Setup Process

1. Unbox the headset and controllers.
2. Charge the headset and controllers.
3. Adjust to Fit.
4. Turn on the headset.
5. Log into DRT's existing account (or then create your own).
6. Start using the headset, choosing from the available apps or downloading new ones.

Unboxing

This is how the headset, and controllers are stored in the box. Putting them back like this makes it easier to remove the tight outer sleeve.



After removing the headset and controllers, the lid of the round central section can be lifted to reveal the charging station (the charging adaptor and lead can be found in the rectangular box on the right-hand side of the previous photo).



This is the complete kit unboxed ready for charging:



Charging the headset and controllers

The headset loses power quite quickly, so give everything a charge before you first want to use the headset and again before any live demonstrations/activities.



It can be tricky to find the correct positioning of the equipment on the charging station so that charging can start (there will be red lights shown on the headset and controllers when charging is underway). The controllers fit inside of the headset. A tip to ensure they are aligned correctly on the charging station is to first 'snap' the controllers together on the flat edge of their tops (which is magnetised), and then lower them into the dock like this. You might need to readjust one of them until they both get a good charging connection.

General instructions for using the Meta Quest Pro headset

When you put on the headset for the first time, things can be quite disorientating, so please first have a look through these general tips to help your first experience.

Fitting the headset

At the back of the headset is an adjustable rear pad and 'rear fit wheel'. The wheel allows you to loosen or tighten the fit of the headset. The headset will stretch a bit allowing you to put it on, and then once on use this wheel to provide a comfortable and snug fit. At the top-front of the headset is another wheel for adjusting the distance from your eyes to the glass lenses, this can give fine adjustment of the headset to your vision to bring things into focus and help prevent fatigue. If you wear glasses, suggest you can put the headset over your glasses. For more information see this article [Adjust the fit and feel of your Meta Quest Pro](#).

Accessibility Features

For more information on the accessibility features of the Meta Quest Pro headset see: [Accessibility features for Meta Quest](#)

Turning the headset on

Press and hold the power button on the left-hand side of the headset for three seconds, or until you hear a chime sound and see the Meta symbol appear in your headset. The controllers should come on automatically with the headset (provided they are charged), but if they don't then press the Menu  and Oculus  buttons.

Turning the headset off

When the headset is turned on, holding down the power button on the left arm for a few seconds will bring up a power menu and from this you can choose to Power Off or Restart. You can probably also just take off the headset and the device will initially go to Sleep and then Turn Off completely by itself.

Using the controllers

With the headset on you will control the 'mouse' cursor using the hand controllers. The controllers are designed to fit in each hand comfortably, with the controller with buttons Y and X in your left hand, and B and A in your right hand, both with a trigger button for your

index fingers. You can switch which controller moves the cursor by pressing the appropriate controller's trigger button for example to suit your handedness or preference. It's worth using the wrist straps with the controllers. Sometimes the controllers fail to respond. Hitting the Oculus button on the right controller a few times should bring it back, otherwise you might need to use the buttons on the headset (the controllers normally come back once logged in).

Using the Universal Menu

This toolbar/taskbar should always be on screen when you are not running specific apps. It provides shortcuts to the App library, notifications, time, and settings.



Accessing the Quick Settings area

This area allows you to configure the headset for your needs such as changing the virtual environment or enabling Passthrough mode to power augmented or extra reality experiences. To access this area, click on the clock on the left-hand side of the universal menu and choose **Quick Settings**.

Training the headset for eye tracking and hand motion

The settings area, and sometimes specific applications, may prompt you to train the headset for eye-tracking or hand control (without the controllers). These add new novel forms of interaction (specific application and the software provide an easy-to-follow tutorial to help you set it up. You should give them a try.

In an Emergency

Click the Oculus  button on the right controller to bring up the task bar including during an application to allow you to leave that application. There are also buttons on the bottom of the right arm of the headset that replicate some of the buttons of the controllers.

System Updates

Like most modern technologies, the headset likes to carry out updates from time to time, particularly if it has not been used in a while. For this it will require a wifi connection and for the headset to have enough charge or being charged. Following the headset carrying out an update, the controllers then often need to receive an update sent from the headset – they often lose functionality during this time, and an icon appears at the top right of the settings screen. Updates always seem to occur when most inconvenient, often when you are looking to turn off and pack up the headset, so we recommend turning the headset on

and connecting to wifi well ahead of any real application/event. When shutting down there is an option to postpone any updates so you can always use this option if required.

Disabling automatic sleep

The headset will go to sleep after a period of time or if it is removed from the head, requiring the user to unlock. But it is possible to disable this for your account which might be useful for events where the headset is passed between individuals. To disable auto sleep follow **Settings > System > Power**. There does not seem to be an easy way to disable the proximity sensor that sends the headset to sleep when taken off.

Getting Started

Logging into an account

1. Put on the headset, [adjust its fit](#) and [turn it on](#) using the instructions in the last section.
2. When the headset has finished booting up you can choose from a list of user accounts.
3. Choose **'DRT'** using one of the controllers (see [usage tip](#) in last section for using the controllers)
 - This is the account of CIE's 'Digital Resources Team', which you are welcome to use to run whatever application you need.
 - Alternatively, through the DRT account, you can set up a new account for yourself which might be useful if you need to download paid-for apps or access personal accounts or get the headset generally set up for a specific use case. Please see the relevant section below.

Setting up a room boundary

When you first enter the DRT account, if the headset is being used in a new room the headset will probably adopt 'Passthrough' mode: this is where the headset displays a live feed from the cameras on the front of the headset, so essentially you see the room. The reason for this is that it will want you to set a new 'boundary', which is a way for you to indicate to the headset where in the room is safe for you to walk or move, so that the headset can adjust activities and warn you if you move outside of this space. (If you are using the headset in a space that has already had a boundary applied then you may instead find yourself in a virtual room – more on this below).

1. The headset may prompt you to create a new boundary, or you can manually do this through the **Quick Settings > Boundary > Room Scale** (or **Stationary** if you are sat)
2. You will be prompted to set the floor level – an easy way to do this is to tap the controller on the floor.
3. Then you will be prompted to use the controller to draw a boundary line: one of the controllers will act like a spray paint can and allow you to draw around the

circumference/outer limit of your safe area – it can be any shape and you can include cutouts for walls and furniture. Aim to get the start and end of your boundary line to meet up and you should be done.

4. With the boundary defined you can start to use the headset, and normally Passthrough mode will be automatically disabled, and you will find your space in a virtual room/environment.

For more information see: [Set up your boundary for Meta Quest](#)

Personalise the virtual room/environment

Once logged in one of the first things you might like to do is configure the virtual room you find yourself in.

1. Use the Universal Menu to launch Quick Settings, then choose Settings at the top-right.
2. Select Personalisation
3. From here choose or download new home environments to apply a new virtual space.

If you would like to return to Passthrough view

1. Use the Universal Menu to launch Quick Settings, then choose Settings at the top-right.
2. Select Passthrough
3. In Passthrough mode you can reposition windows by dragging their title bars

Setting up a new Account

You may wish to set up a new account for yourself if you need to install new apps, or where you need to log into personal accounts, or for where you need to setup a specific application for an event.

1. You first need to login as DRT.
2. A control bar should appear in front of you, by clicking on the left of the bar a Quick Settings area should appear, (you can move this panel around your environment by clicking and dragging its title bar using your controller.) Click on the Settings button at the top-right to enter the full Settings area.
3. Click on the Accounts buttons > Add Account

(A prompt will appear warning you that you will be sharing apps, just click OK.)

4. A new user wizard now appears which you can follow to setup a new account. It will take you through various steps:
 - At one stage it will prompt you to visit a webpage on another device to enter a code, it seemed that the device wanted to link to a Facebook account, so if you have one of these then it might be easier to be logged into Facebook on the account (we don't know yet what options you have if you don't have or want to link to a Facebook account).

- You may be requested for a passcode – we recommend not setting up any passwords or passcodes – at least not without speaking to CIE/DRT.
- It will ask you to setup an Avatar.
- It may end with having to setup a new boundary within Passthrough mode.

Things to do

Opening Apps

Apps that are already installed on the headset can be launched through the App Library, which is the button on the far right of the Universal Menu (looks like a square with dots in it).

Installing a new App

There are a couple of places to find new apps to install from Meta. The 'Horizon Feed' seems to be an application which highlights new content for you to try, this is a button available from the taskbar. And the Meta Quest Store shows all the apps available. Many apps cost money but some are free/ Here are some recommendations of free apps:

- 'First Steps' (free) available from Horizon Feed or searchable within the Store – provides a fun tutorial to using the headset within virtual worlds.
- Humanity (has free version) – looks like an interesting game.
- Anne Franke House VR (free)
- Mission ISS (some science – free)

Other paid for apps:

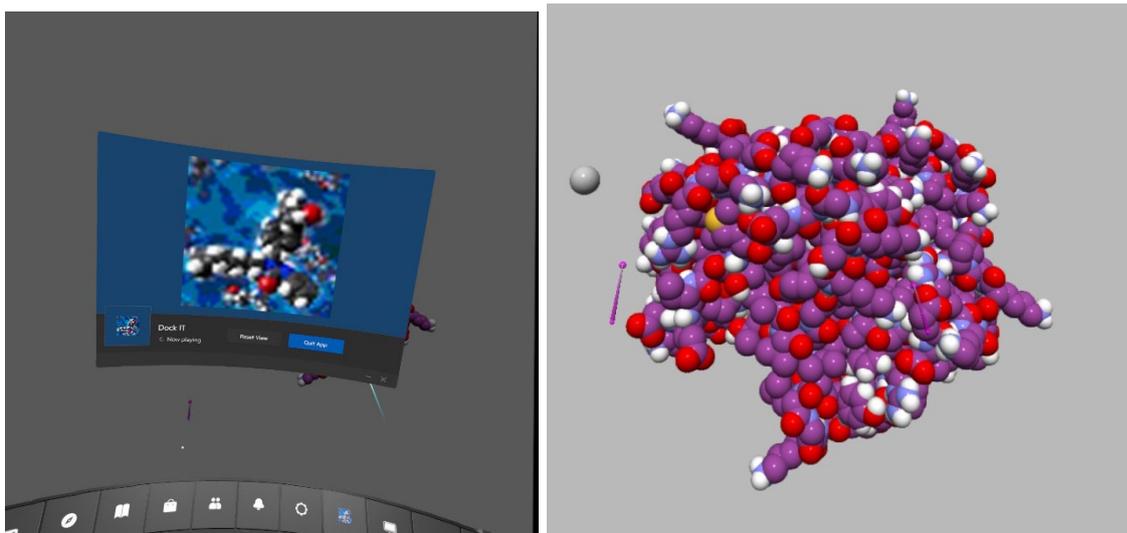
- Out of Scale: A Kurzgesagt Adventure
- Pirate's Queen
- Math World VR -kids
- Nono -molecular biology thriller

Using the Quest Browser

The browser allows you to surf the web, combined with Passthrough mode this makes for a very interesting experience where online sources can be used in the real world. From the Universal Menu, choose the icon for Quest browser. There is also an app for YouTube.

Running other applications outside of the Quest App Library

There are other applications developed for use with VR headsets which are not delivered through the App Store. Some of these involve linking the headset to a PC and running software to display them and manipulate the image from the PC to the headset. The headset is supposed to be able to connect wirelessly to computers, or through the included wire. In testing we found that the PC needed to have a dedicated graphics card, so did not work with the HP laptops. It seemed to be that if the PC was suitable then connection via the wire work ok.



(Screenshots from HaptiMOL DockIT running on a Meta Quest Pro headset – A tool for interactive molecular docking and molecular complex construction)

Installing the Meta Quest app on your phone

Depending on what you need to do, you may find that you need to link the headset to the Quest app on your phone. To do this, view: [Install the Meta Quest mobile app on your phone](#). If you are unable to install the app on your phone, DRT has a mobile device available for loan with the app already installed.

Once installed, you will need to pair/link the app with the headset. To do this, make sure the headset is turned on, then in the app, select **Menu** and tap **Devices**. It may ask you to connect to a new device, if so, choose “Meta Quest Pro”. It may also ask you to create an avatar and add payment details, just skip these sections.

The app should now automatically attempt to pair with the headset and controllers. If it is unable to, it will ask for a 5-digit pairing code to be inputted in the app. To find the code, in the headset go to **Settings** > **System** > **About**, then look for the pairing code. Enter this code in the app and the headset should start pairing with the app.

Once paired with the Quest app, you can do various things in the app, such as downloading and installing apps to be used in the headset. This may be useful if you are unable to connect to the internet within the headset via the Eduroam network.