GET INTO RADIOTHERAPY CAREERS:
USER GUIDE

A VR experience to enable users to experience a radiotherapy department work environment and explore a range of radiotherapy careers

For further information please contact:

Katy Lowery - katy.lowery@nhs.net

Michelle Bates - michelle.bates@nnuh.nhs.uk

Helen Baines - hbaines@nhs.net

NHS

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1. Introduction

This Virtual Reality radiotherapy workplace experience is designed to support activities promoting careers in radiotherapy. The careers covered in this experience are:

- Therapeutic Radiographers
- Clinical Scientists
- Clinical Technologists – Treatment Planning
- Radiotherapy Engineers

The content includes an explanation of some of the equipment used in radiotherapy careers, alongside interviews with staff members.

2. Using the Radiotherapy Careers VR Experience

The headset should be charged and set up according to the instructions included in Appendix 1: Initial headset set-up. Do not expose the lenses to **direct** sunlight. Instructions on how to use the headset and the Careers Experience are included in Appendix 2.

Before using the headset at a careers event, it may be worth spending time getting familiar with the headset and the content. We also recommend connecting the device to a display unit (Appendix 2) to make the experience interactive with the surrounding audience.

There is a lot of content within the experience which can be quite overwhelming. Before putting on the headset, it may be worth asking the user what career they are interested in so you can them to the appropriate area before they start exploring. If they aren't sure, start with the 'What is Radiotherapy' section.

3. Evaluating the Radiotherapy Careers VR Experience

We now need your help! We hope you find that this 'Get into Radiotherapy Careers: Virtual Reality Experience' is a useful resource. We would be very grateful if you could use the information found in Appendix 4.2 and Appendix 4.3 to gain the feedback needed to allow us to measure the impact of this VR experience.

Radiotherapy Careers Virtual Reality Experience: Event holder feedback

- https://forms.office.com/e/kvTGNyMpyG
- For use by the person promoting radiotherapy careers at each event that is attended.
- Please provide an estimate of numbers of people who used the headsets. We understand this is likely to be approximate. It may be worth keeping a piece of paper and a pen close to the headsets to allow you to keep a tally.

Radiotherapy Careers Virtual Reality Experience: User feedback

- https://forms.office.com/e/FW9SEmHcsf
- For use by the student/ member of public using the headset at each event.
- This survey includes questions about how useful the virtual reality experience is and if users are inspired to find out more about a career in radiotherapy.

4. Help and Advice

For NHS Radiotherapy Providers in England purchasing VR headsets, a support contract with Animmersion UK is available for an initial period of 12 months, from 11 September 2024 to 11 September 2025.

Requests for help and support will be managed by the Project Team in the first instance. Please contact:

Katy Lowery, Northern Radiotherapy Network Manager : Katy.lowery@nhs.net

Michelle Bates, East of England Radiotherapy Network Manager: Michelle.bates@nnuh.nhs.uk

Helen Baines, Yorkshire and Humber Radiotherapy Network Manager: hbaines@nhs.net

If we are unable to help with your enquiry, we will escalate this to Animmersion UK.

For those not purchasing through an NHS radiotherapy provider, or for purchases made after this time, alternative support arrangements will need to be made.

5. Acknowledgements

Thank you to everyone from the radiotherapy departments at Carlisle, Leeds and Oxford who was involved in filming the video content used in the experience.

Thank you to all radiotherapy colleagues from centres across the country who contributed to the content and reviewed all of the video footage.

Thank you also to NHS England Specialised Commissioning for providing national funding for the project as part of the Radiotherapy Transformation Programme.

The Radiotherapy VR workplace experience was produced by Animmersion UK Ltd.

Appendix 1: Initial headset set-up
Instructions based on Pico Neo 3

1.1 Headset Battery Charge

1. Use the USB cable and plug provided to fully charge the headset – the indicator light on top of the headset will turn green.
2. Headset Indicator Light – Red light: Battery less than 20%. Yellow: charging
3. Wearing the headset – click on the battery indicator to see headset % charge.
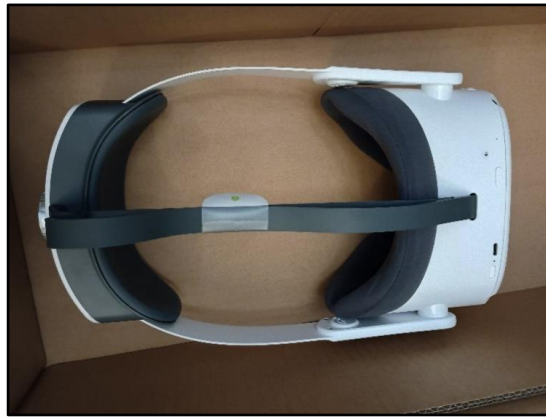
1.2 Setting up the headset for the first time

1. Ensure the headset is fully charged.
2. Remove battery tabs from controllers.
3. Fit the batteries into the controllers by removing the side panel.

4. Attach lanyards provided to the controllers.
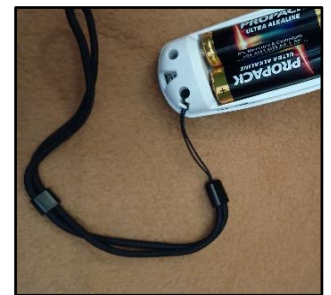
5. Attach spectacles spacer to enable glasses wearers to use the headset
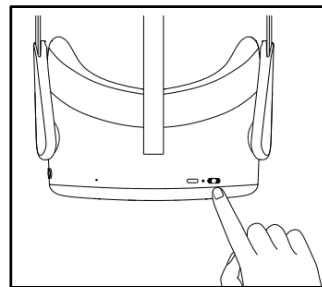   a. Pull out the cushioned insert, slot in the spectacle's spacer, slot the cushioned insert on top.
    b. We recommend this stays in place all the time to avoid risk of breakage.

6. Switch on the controllers by pressing the home button so the blue lights flash.

7. Switch on the headset by pressing the button for 2 seconds (indicator turns blue).
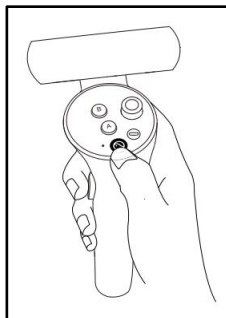
8. Connect to Wi-Fi:
    a. Settings menu
    b. WLAN
    c. Select network and enter password (It might help to have someone on hand to read a WIFI password to you whilst you are wearing the headset)

9. Run updates that appear on screen.

10. Switch off: Long press the power button for 5 seconds.

For more information: PICO online setup guide

1.3 Loading the 'Get into Radiotherapy Careers' Virtual Reality Experience onto the headset

With the headset connected to Wi-Fi:

1. Click Library.
2. Select File Manager.
3. Select APKS.
4. Find the package 'Animmersion VR Work Experience'.
5. Click to install. If there is an update to the experience, the software will ask you to install it here.

This application should then be visible in the Library page.

1.4 Accessories (purchased separately)

1. The headset box is fitted with indents to keep your headset tidy. Unfortunately, once the spectacles spacer is added (and we recommend you leave it in to avoid it getting broken), the headset doesn't fit in the indents. We recommend purchasing a carry case from eBay or Amazon for ~£20.

2. The charger provided is a USB-C to USB-A lead and will charge via a PC/laptop USB socket however charging times are slow. The charger plug provided by the manufacturer is a European type. We recommend purchasing a UK adaptor.

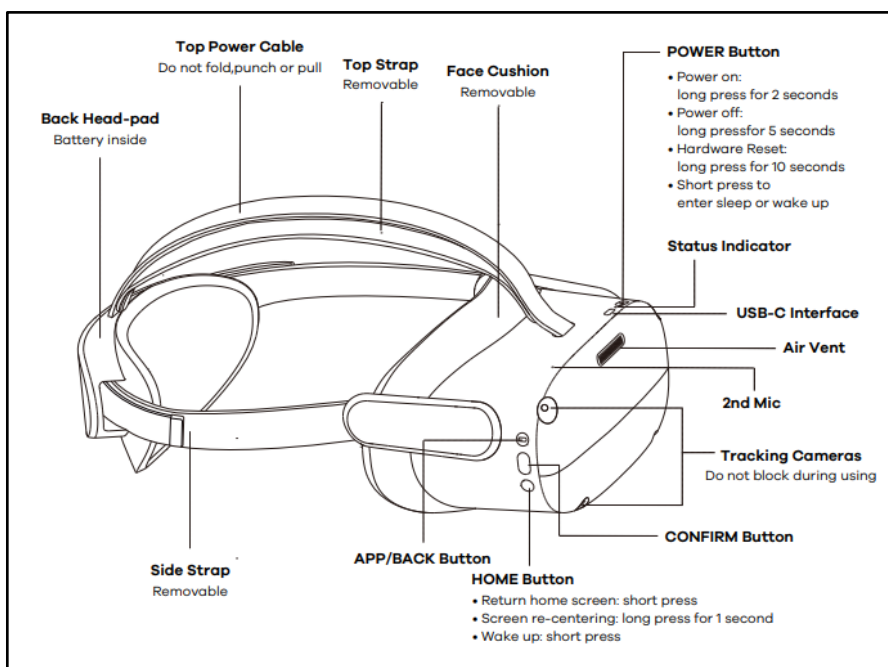3. The foam face pad is made of material which isn't easily cleaned between users. Animmersion recommend purchasing either:

- o A cover to fit over the existing foam pad
- o Replacement PU leather face cushion
- o For further information on replacing the foam pad with the above replacement please refer to the following video: How To Replace The Pico Neo 3 Face Padding? | VR Expert (youtube.com)

Appendix 2: Using the headsets

Switch headset and controller on.

Top Power Cable
Do not fold, punch or pull

Top Strap
Removable

Face Cushion
Removable

POWER Button
• Power on:
  long press for 2 seconds
• Power off:
  long press for 5 seconds
• Hardware Reset:
  long press for 10 seconds
• Short press to
  enter sleep or wake up

Back Head-pad
Battery inside

Status Indicator

USB-C Interface

Air Vent

2nd Mic

Tracking Cameras
Do not block during using

CONFIRM Button

Side Strap
Removable

APP/BACK Button

HOME Button
• Return home screen: short press
• Screen re-centering: long press for 1 second
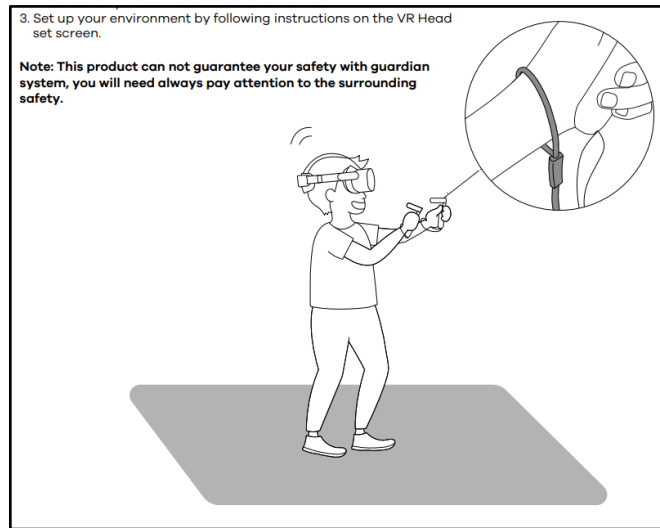• Wake up: short press

2.1 Adjusting the headset

1. Twist the cog on the back of the strap to adjust the size.
2. Adjust the overhead strap.
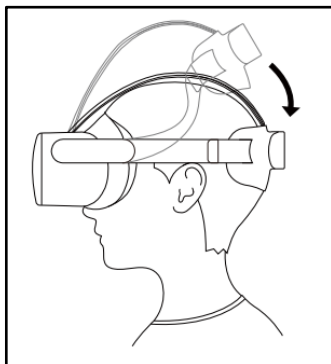
2.2 Setting the boundary

1. Choose to set a stationary boundary, then sitting or standing boundary.
2. Set floor level as instructed by the on-screen instructions.
3. Enter the VR world.

3. Set up your environment by following instructions on the VR Head set screen.

Note: This product can not guarantee your safety with guardian system, you will need always pay attention to the surrounding safety.

Tip: If using at a public event, it might be worth marking the boundary with masking tape to avoid accidents and resetting the boundary. Alternatively, the user can be sat on a chair and encouraged to tilt their head to view all the content; this works best with a rotating desk chair.

Tip: If the headset enters standby mode between uses, select 'Enter VR in current boundary' to open the experience again without resetting the boundary.

2.3 Enter the VR Experience

1. Choose the 'library' icon from the menu.
2. From the library menu choose the 'VR Experience' icon.
3. You will now enter the 'Get into Radiotherapy Careers' Virtual Reality Experience. Click on the 'Get into Radiotherapy Careers' icon.
4. Following the instructions on the screen press the 'I' icon to the right of the welcome screen.
5. Following the instructions on the screen look down to review the tools menu.
6. Following the instructions on the screen choose the door icon which will take you to a radiotherapy waiting room, ready to start your Virtual Reality experience.
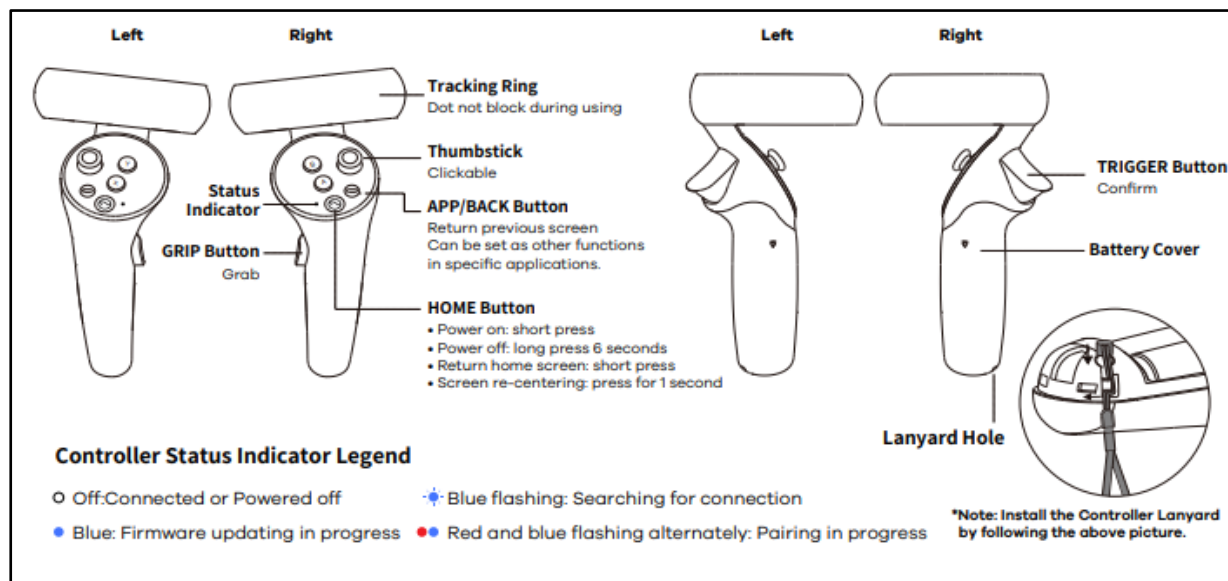
2.4 Volume

1. Adjust volume on screen from the small menu bar or by pressing the button on the underside of the headset at the front.

2. In the VR Work Experience, look down and use the + and – icons to change the volume of the voiceover. This can be useful if you want to quietly look around the rooms and read the info points without the voiceover.

Tip: If you are at a busy careers event, you will need volume set as high as possible.

2.5 Navigation using the controllers

1. Move your head to look around the virtual environment.

2. Turn your body around to see 360° content but try to minimise walking around to avoid leaving the custom boundary.

3. Use the controllers to point and click on content and menus (use the trigger button on the back of the controllers to confirm).

4. Use the thumb stick to move around menus.

Controller diagram:

Left / **Right**

- **Tracking Ring** — Dot not block during using
- **Thumbstick** — Clickable
- **Status Indicator**
- **APP/BACK Button** — Return previous screen. Can be set as other functions in specific applications.
- **GRIP Button** — Grab
- **HOME Button**
  - Power on: short press
  - Power off: long press 6 seconds
  - Return home screen: short press
  - Screen re-centering: press for 1 second
- **TRIGGER Button** — Confirm
- **Battery Cover**
- **Lanyard Hole**

Controller Status Indicator Legend

○ Off:Connected or Powered off   ⚬ Blue flashing: Searching for connection

● Blue: Firmware updating in progress   ●● Red and blue flashing alternately: Pairing in progress

*Note: Install the Controller Lanyard by following the above picture.

2.6 Screen refreshing

1. Between users, the view may become offset if the user has moved within the boundary. To recentre the experience, look straight-ahead, press and hold the HOME button of the controller for at least 1 second.


2. If the experience is blank, try asking the user to move around the area as they may've moved out of the boundary. Note: be aware that some of the content isn't 360° so some of the screen is intentionally black. Try step 1. to recentre the experience.

2.7 Resetting the experience between users

1. The experience is designed so ticks appear on the doors within the experience that the user has been to. This allows them to track their journey around the experience. These can be reset between users by looking down at the mini menu and clicking on the x symbol. There will be a prompt to confirm you want to reset the experience. If confirmed the experience will start at the title page.

2.8 Navigating around the experience

1. Users look around the experience and using the TRIGGER button on the controller/s to click on Info Points to read more details.
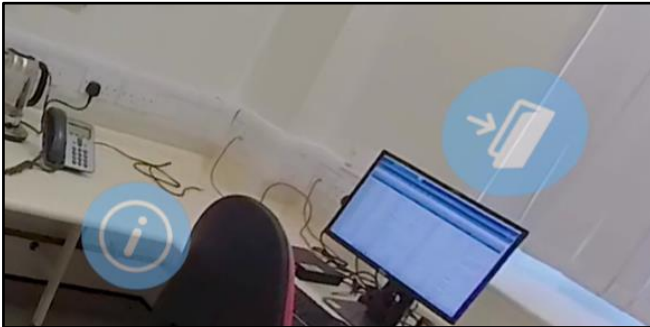
2. Users move around the experience using the TRIGGER button on the controller to click on the door icons to move between areas.

3. Another way to move around the experience is to use the list menu. The list of videos within the experience is available by looking down and using the 'to-do list' icon on the left to access the list menu. This makes it easier for uses to view a portion of the content:

- What is Radiotherapy (explore a short summary on each radiotherapy career)
- Therapeutic Radiographers
- Clinical Scientist
- Clinical Technologist – Treatment Planning
- Clinical Technologist – Engineering
- Case studies
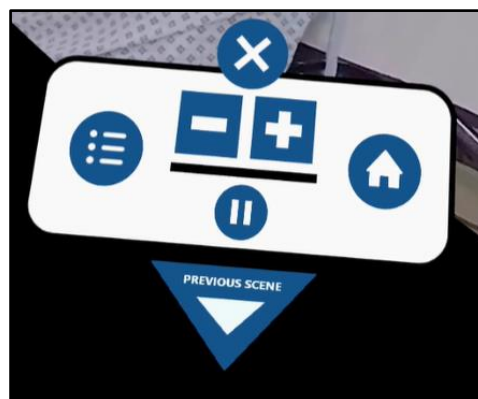
4. To navigate this list, press and hold the TRIGGER button and move the controller up and down to drag the list.

5. Other navigation tips:

- Use the 'previous screen' button on the tools menu to take you to the previous screen.
- Use the 'home' icon on the tools menu, or on the handset to return to the radiotherapy waiting room screen.

2.9 Connecting to a Display Unit

1. If you wish to display the user VR experience on a display unit, It is possible to connect the headset to a display unit using the connectors in the packaging. The booklet in the Pico box gives more details on this including display unit system requirements. You will need to install the SteamVR application and ensure the laptop has the correct requirements e.g. wi-fi speed and graphics card.

2. Alternatively, it is possible to stream the content to a display unit if both the headset and the laptop/PC/Smart TV are connected on the same Wi-Fi connection (5GHz required) and the Business Streaming Application has been installed on the display unit.

3. Another option: **Screencast** is available from the quick menu on the headset (click on the clock).

4. Enter the web address displayed into the web browser on your display unit (cast.picoxr.com/XXXX) and accept access on the headset. If this doesn't work, at the bottom of the screen there's a message about another link XX.XXX.XXX.XXX:XXX/cast that can be used 'if no internet'. **Note** the display unit will also play the voiceovers in the headset so either the display unit or the headset will need volume muting depending on your situation to avoid duplicating sounds.
Note: Screencast will likely have a time delay compared to the person wearing the headset and can be jumpy or with buffering interruptions depending on the quality of the wi-fi connection.

2.10 Exiting the experience and powering off the headset

1. To close the experience, press the HOME button on the controller.

2. Select Exit to close the experience.

3. To power off the headset, navigate to the quick menu by clicking on the clock. Select the power icon, and Power Off.

2.11 Cleaning the headset and hand controllers between users

1. The headset manufacturers **do not** recommend the use of alcohol wipes on the lenses of the VR headsets. Glasses cleaner wipes can be used lightly.

2. To wipe the fabric rim, a microfibre cloth dipped in soapy water can be used, keeping as dry as possible.

3. The rest of the device (avoiding the lenses) can be cleaned between users with anti-bacterial wipes.

2.12 Software updates

You will be required to update the software periodically and you must be connected to Wi-Fi to do this and a notification will appear.

1. Click Home, Settings, General, System Settings.

Appendix 3: Hints and tips

Setting the boundary

- To avoid having to reset the boundary each time a user takes off/puts on the headset, set the boundary at the position the headset will be used.

- You won't be asked to reset the boundary if it remains in the same place.

- Suggest putting some chairs out with the headsets on or have them at either end of the table you are using.

- If the user moves out of the boundary, they will start to see blue circles on the headset – they need to move back into the boundary position and this will disappear.

Starting location/resetting

- The experience starts in a waiting area – return home to the waiting area between each user by clicking 🏠

- To clear the ticks from where a user has already visited, look down for the menu and click ✖

- If you want to jump to specific areas, use the list function by looking down to navigate and clicking ☷

Using multiple headsets

- Make sure users are not positioned too closely to each others as the handset pointers can appear on the other headset and impact on their experience.

Using the handset

- Give the handset to the user first, before putting on the headset so you can show them the buttons.

- Ensure users hold the handset correctly and using the trigger at the back. If they use their thumb on the home button 🚫 , they may exit the experience.

Appendix 4: Useful resources

For a digital version of this booklet please visit:
https://bit.ly/VRUserGuide or scan the QR code below:

The following resources are printed on separate pages to allow for ease of printing:

4.1 'Get into Radiotherapy Careers' poster
Where possible, have this available as a roll-up banner for maximum impact.

4.2 Radiotherapy Careers Virtual Reality Experience: Event holder feedback web link or QR code
https://forms.office.com/e/kvTGNyMpyG

4.3 Radiotherapy Careers Virtual Reality Experience: User feedback poster
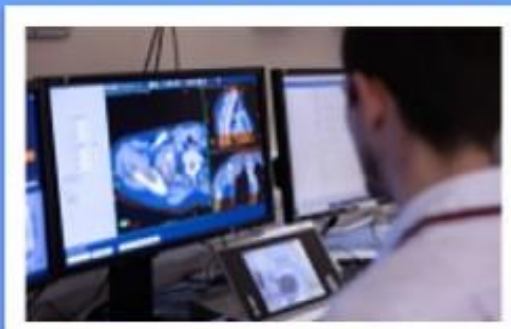
Get in Radiotherapy Careers - Virtual Reality Experience - Event Holder Feedback

Radiotherapy Careers Virtual
Reality Experience

Radiotherapy Careers Virtual
Reality Experience