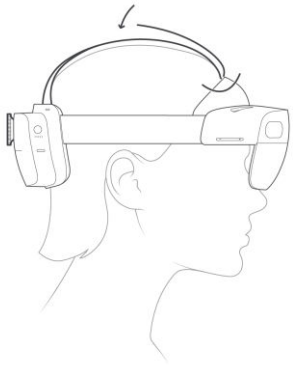
**HoloLens2 – A How-To Guide for Clinicians**

## Before you start:

Before you get started, make sure you have the following available:

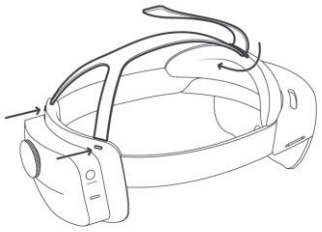
1) **A network connection**. You'll need to connect your HoloLens to a WiFi network to set it up. The first time you connect, you'll need an open or password-protected network that doesn't require navigating to a website or using certificates to connect.
2) **A Microsoft account**. (ie. an email account ending in @live, @hotmail, @outlook, @msn.com). You'll need to sign in to HoloLens with a Microsoft account (OR ideally with your work account, once your IT team has registered the HoloLens and the Remote Assist Licence). If you don't have a Microsoft account, go to account.microsoft.com and set one up for free.
3) **A tidy space with room to move around a little.**

## Adjusting the fit of the HoloLens:



Adjusting the fit is quick and easy, making the HoloLens easily transferrable between clinicians

Place the HoloLens 2 on your head. If you wear eyeglasses, leave them on. The brow pad should sit comfortably on your forehead and the back band should sit in the middle-back of your head.



The headband can be made looser by rotating the adjustment wheel at the back of your head.

If you have a ponytail or a hijab, you might find that removing the top strap is more comfortable.

**Turning on the HoloLens 2 for the first time:**

1. Press power button and wait a few minutes the device to start up.
2. Select region as 'United Kingdom'
3. Carry out eye tracking as instructed
4. Connect to your Trust wifi
5. Read And accept licence agreement.
6. You will then be asked to select from the following two options:

I own it

When you choose **I own it**, you sign in with a Microsoft account (eg. @live, @hotmail, @outlook.com). After setup is complete, you can manually enroll HoloLens in device management.

1. Enter your Microsoft account information.
2. Enter your password. If your Microsoft account requires two-step verification (2FA), complete the verification process.

**NB. Selecting 'I own it' and registering the device to your personal Microsoft account will still allow you to use Remote Assist, but you must register for a 90 day free trial via the HoloLens. If your Trust has yet to set the HoloLens up for you, you can use this option to get to grips with using the HoloLens and Remote Assist**

My work or school owns it

When you choose **My work or school owns it**, you must sign in with an Azure AD account (the nhs.net email address which the Remote Assist licence has been registered to). If your organization uses Azure AD Premium and has configured automatic MDM enrollment, HoloLens automatically enrolls in MDM. If your organization does not use Azure AD Premium, automatic MDM enrollment isn't available. In that case, you need to manually enroll HoloLens in device management.

1. Enter your organizational account information.
2. Accept the privacy statement and the end user license agreement.
3. Sign in by using your Azure AD credentials (ie an nhs.net account).
4. This will redirect to the NHS outlook sign in page.

7. Carry out Iris Recognition as instructed (this will automatically unlock the Hololens when it is used by you).
8. Provide a PIN number as an alternative log on for other team members to use.

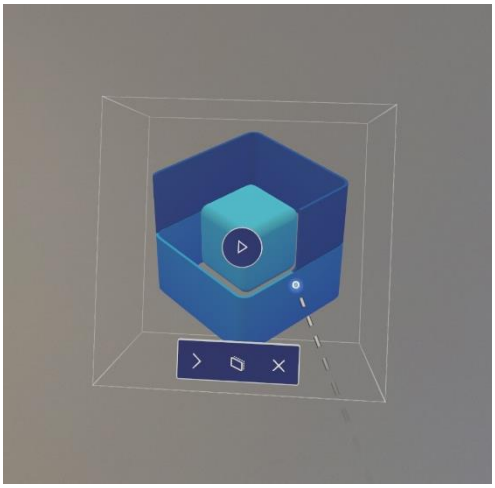
9. Allow access to speech recognition to allow you to use voice commands.
10. Allow access to location services.
11. Allow Optional diagnostic data to allow the HoloLens to send diagnostic reports.

Youl should now be able to access the main menu of the HoloLens. Select 'Tips' within the main menu for a demonstration of how to use voice and touch commands. You can get each orthoptist within your team to complete this brief tutorial on how to use the HoloLens.

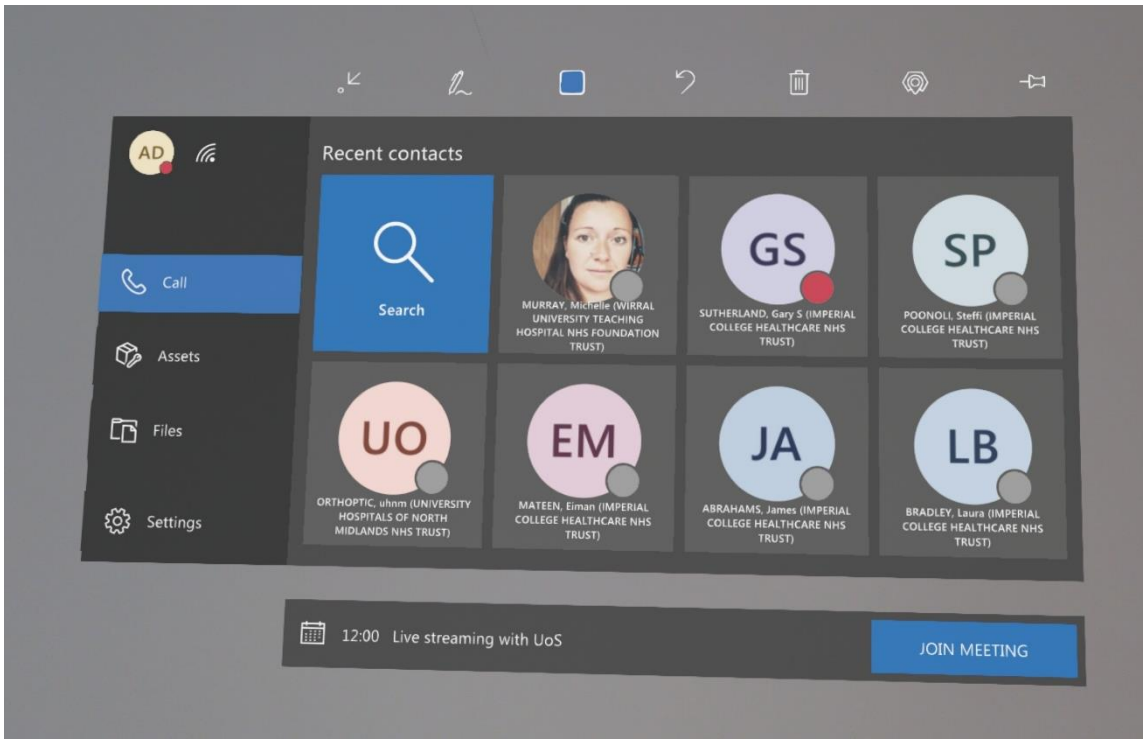
**NB. You will need to manually change the time zone of the HoloLens device in order to see your scheduled Teams meetings. Do this by selecting 'Settings' -> 'Time Zone and Language' and manually selecting UK time.**

**Using Remote assist for the first time:**

1) Select Remote Assist from the main menu:
2) Press the play button the blue box (see below)



3) You will be asked to register – do this with your work email address. You will be required to input your password on the first use only, it will not be required on future uses.
4) When prompted, allow the device to stay signed in across all applications.




5) You will then see the above display. Your scheduled Teams meetings will appear at the bottom (see the Join Meeting button in the example above).

**NB. Scheduled meetings will only appear 10 minutes before the meeting start time, and will remain visible for the duration of the meeting.**

Tip: Remote Assist can sometimes be difficult to use if you start walking around while it is open. If you lose your Remote Assist screen, retrace your steps while looking around for it. Once you have found it, you can pick it up and carry it with you while you move. Use the pin button in the top right to 'pin' it in a position that you are happy with before you start assessing the patient.

Tip: Having more than one Remote assist screen open can make the HoloLens crash. If you suspect this has happened, open the main menu (tap your wrist) and select the Home button at the bottom. This will close all your open apps and allow you to start again.

**Making video recordings using the HoloLens:**

1) Select the Record icon in the main menu
2) Either AirTap or say ‘start recording’ to begin recording
3) AirTap or say ‘stop recording’ once you are finished.
4) The video will appear in your camera roll.

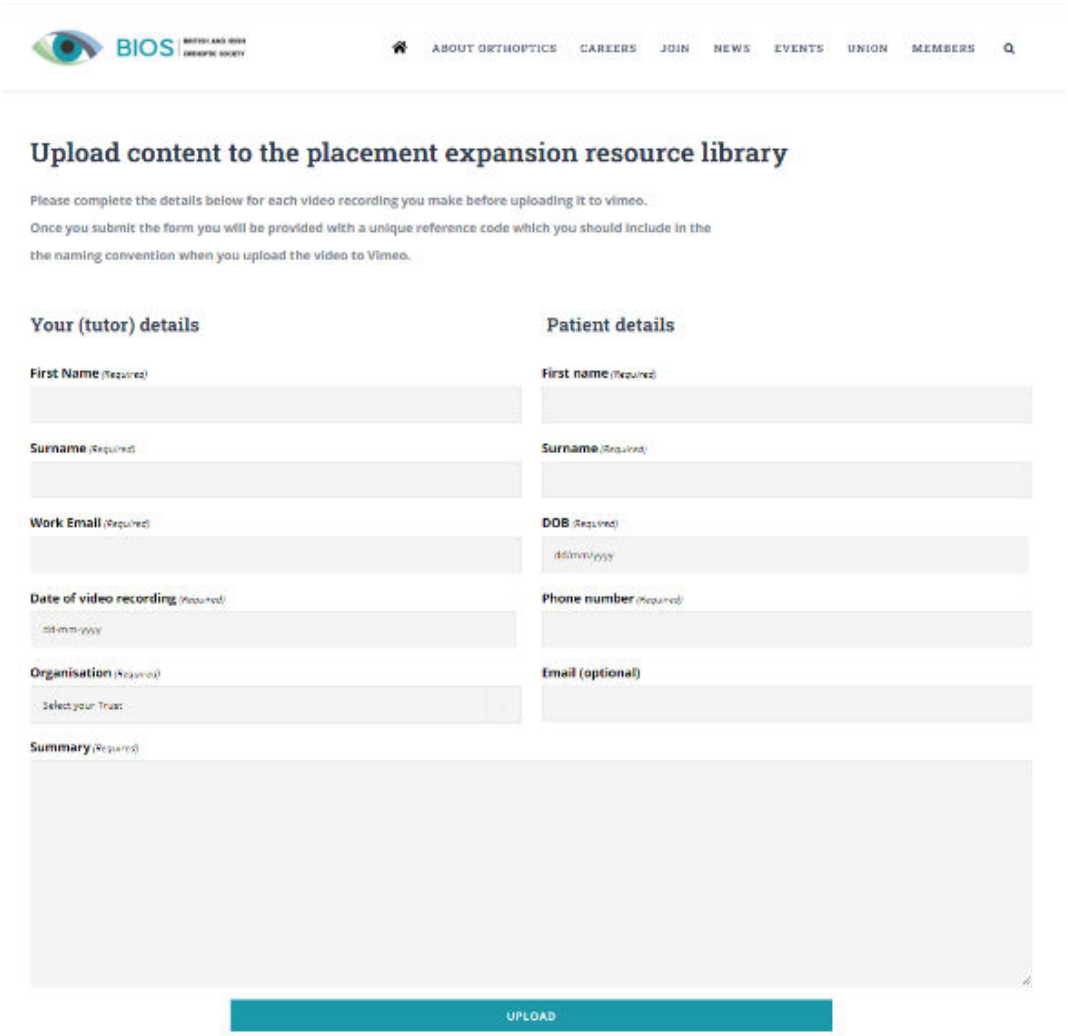
There are a few options to upload videos from the HoloLens to a Trust PC: You can either:

1) Upload to the PC manually using the Type-C USB cable that comes with the HoloLens.
2) Locate the video in your camera roll and click ‘share’ in the top right. This will give you the option to email it to yourself
3) You will also have the option to use OneDrive to save the videos. You should makesure you can access OneDrive from your Trusts PC before using this option.

**NB. Once the video has been uploaded to Vimeo, it must be deleted from the HoloLens, from your email inbox, from your OneDrive account (depending on how you uploaded it) and from your Trust’s local hard drive.**

**Uploading to Vimeo:**

You must first get a unique ID number for the video by registering the patients details on the BIOS website. Go to www.orthoptics.org.uk/ tutors-upload, and fill in the form shown below.




After completing this form, the page will generate a unique video ID number (eg . 01017-ICHT-22-08-2001). You should then rename the video file with this ID number before uploading it to Vimeo. You will also have a copy emailed to your work email address.

Use your registered log-in details to access Vimeo. If you do not have access to the shared BIOS Vimeo account, please email admin@orthoptics.org.uk with your account details (this could be a shared departmental email address).

Select 'New Video' and 'Upload', and select the video file. Once this is finished uploading, it will be edited by the Lead Clinical Tutor for the project and subsequently uploaded to the BIOS Placement Expansion Resource

Library (PERL).

**Resetting the HoloLens:**

If you register the HoloLens to your personal email address in the interim before your Trust set it up for you, you will need to Reset the device to re-register it to your NHS account.

You will also need to do this if the staff member who the HoloLens is registered to leave the Trust, once the Remote Assist Licence is re-registered to another team members NHS.net account.

1) Go to Settings from the Main Menu
2) Select Update & Security
3) Select Reset and recovery from the left-hand menu and follow the steps when prompted.
4) On restarting the Hololens, you will be required to register the HoloLens as outlined at the beginning of this document.

If the standard reset procedure doesnt work, use the hard-reset procedure:

1. Unplug the Type-C cable to disconnect the device from any power supply.
2. Hold down the volume down + power buttons for 15 seconds. The device will automatically restart.
3. Connect the device to a Trust PC.
4. Open Device Manager (for Windows 10 press the Windows key and then the X key, and then select Device Manager). Make sure the device enumerates correctly as *Microsoft HoloLens* and follow the Reset procedure.

**Power button actions for different power transitions:**

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|---|---|---|
| To turn on | Single button press. | All five lights turn on, then change to indicate the battery level. After four seconds, a sound plays. |
| To sleep | Single button press. | All five lights turn on, then fade off one at a time. After the lights turn off, a sound plays and the screen displays "Goodbye." |
| To wake from sleep | Single button press. | All five lights turn on, then change to indicate the battery level. A sound immediately plays. |
| To turn off | Press and hold for 5s. | All five lights turn on, then fade off one at a time. After the lights turn off, a sound plays and the screen displays "Goodbye." |

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| To force the HoloLens to restart if it is unresponsive | Press and hold for 10s. | All five lights turn on, then fade off one at a time. After the lights turn off. |