



TIME2ACT@SD
TIME TO ACT THROUGH SUSTAINABLE EXPERIENCES
FOR HIGHER EDUCATION STUDENTS

Oculus Configuration Handbook for TIME2ACT@SD VR Game

Oculus Meta Quest 2 Headsets - VR Streaming

VR Game

*Sustainable Futures: A Journey
through the SDGs*



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HIGHER EDUCATION STUDENTS**

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Configuration Handbook Oculus Meta Quest 2 Headsets - VR Streaming

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1. Introduction

The TIME2ACT@SD project aims to enable the acquisition of sustainability competencies (conceptual learning/knowledge; behavioural change and know-how; and attitude through social awareness and self-reflection) by engaging learners with numerous practical learning activities. The development of an immersive Virtual Reality (VR) educational game is one of the project's intellectual outputs. The '[Sustainable Futures | Journey through the SDGs](#)' blends the engaging power of Virtual Reality (VR) combined with gamification elements and game-based learning activities helping to:

- foster a deep understanding of Sustainable Development Goals (SDGs),
- improve sustainability knowledge, skills, and competencies,
- enable a positive attitude and change students' behaviours towards sustainability.

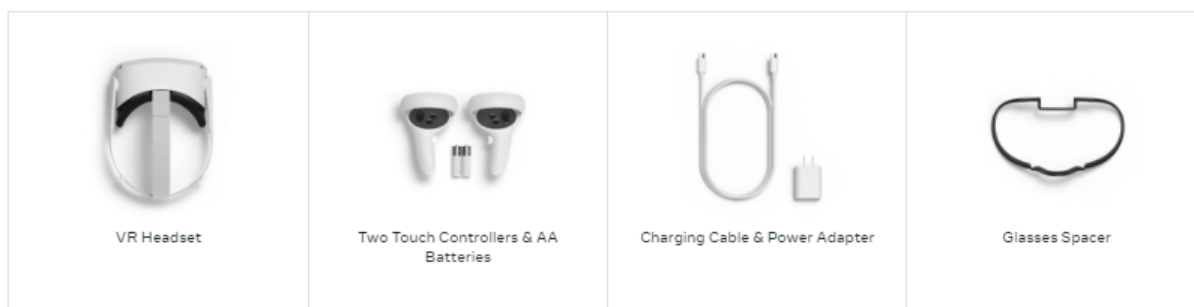
VR allows users to immerse themselves in 3D spaces that go beyond the real world and lets them discover new experiences.

The educational VR game is designed in Unity game engine, targeting **Oculus Meta Quest 2 Head Mounted Displays** (HMD) (<https://www.meta.com/quest/products/quest-2/>). Meta Quest headsets allow users to explore, play and immerse themselves in VR environments.



All TIME2ACT@SD partners purchasing the **Oculus Meta Quest 2** set should have the following parts included (and optionally a case):

- A VR Headset (Head Mounted Display (HMD))
- A pair of 2 touch controllers
- Charging cable





2. Purpose of this Handbook

This handbook is designed to help you **configure** your **Oculus Meta Quest 2 Headsets** and your **personal computer** (PC) so that you can **stream** what the user “sees” in the Virtual Reality (VR) world to your computer screen. This will help in testing but also in guiding the users during the training sessions and the bootcamps.

To stream on a PC, there are two (2) options:

1. Wireless streaming – if Wi-Fi connection is available.
2. Cable connection streaming – in no Wi-Fi connection is available.

Based on the context of use and the type of Internet connectivity available, you can choose the appropriate approach for streaming.

3. General Instructions for Using Oculus Meta Quest 2 headsets

3.1. Charging and Operating the Headsets

To charge the Meta Quest 2:

- Connect the USB-C cable to the headset and to a power source.
- A light on the side of the headset will indicate that the device is charging.
- Charge until the light turns green (full charge).

Avoiding Overheating:

- Use in a well-ventilated area and do not cover.
- In warm climates, better to be in an airconditioned room – this will also contribute to user comfort.
- Avoid exposure of the headset in direct sunlight and high temperatures.
- Take breaks to let the headset cool down.
- Do not cover any of the vents on the headset.

Charging Time:

- Typically, it takes around 2.5 to 3 hours to charge from 0% to 100%.
- Avoid leaving the headset plugged in for an extended period after it is fully charged.

Handling and Care:

- Always handle the headset gently, especially when connecting or disconnecting the charger and the Link cable.
- The USB-C port is very delicate and is not only needed for charging but also for connecting the headset to the PC.

3.2. Cleaning the Headsets

Regular Cleaning:

- Clean the headset after its use with a soft, dry cloth. Use with caution.

Lens Cleaning:

- Use a dry optical lens microfiber cloth to clean your headset lenses. Don't use liquid, alcohol-based or chemical cleansers.
- Starting from the centre of the lens, gently wipe the lens in a circular motion moving outwards.
- **Note:** Alcohol wipes should not be used on lenses as they can damage them. Use with caution.



Source: <https://business.oculus.com/support/665720147270975/>

Disinfecting the Headset:

- Use dedicated wipes for disinfecting. Ensure they are safe for use on electronic devices.
- Carefully wipe down the exterior surfaces of the headset, including the straps and areas around the lenses. Important to **avoid** any contact with the lens surfaces.

Exterior Cleaning:

- Use anti-bacterial wipes.
- **Note:** Avoid getting moisture in any openings.

Handling the Headset:

- Always wash your hands before and after using the headset.
- Use the silicone hygiene cover.

Personal Hygiene:

- Encourage users to maintain personal hygiene, including clean hands and faces, before using the headset.

3.3. Important Notes for Safe Use

Maintenance tips and best practices:

- The headset is designed for indoor use only.
- Ensure that the area space of where the users will operate the Meta Quest 2 headsets is clear of obstructions to avoid any accidents.
- Set the room space to provide boundaries.
- Where needed, seated mode is preferred.
- **Important:** If at any point a user develops any sickness symptoms, i.e. feels disoriented, dizzy etc, ask them to stop and remove the headset immediately.

4. Overview of steps to Start Casting/Streaming on a mobile device or computer

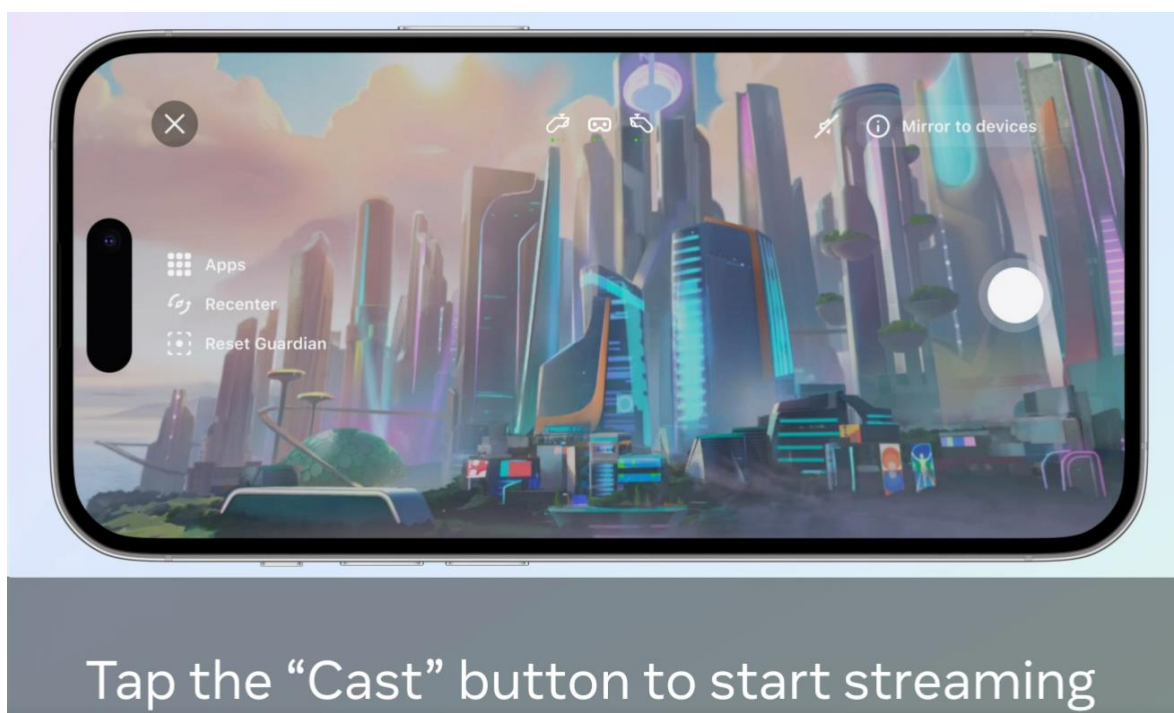
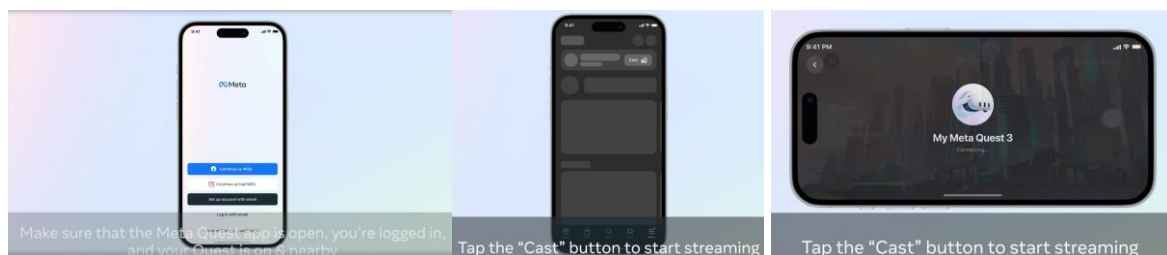
4.1. Overview of steps for casting to a screen

Step by step instructions to cast to a screen with Meta Quest are available here:

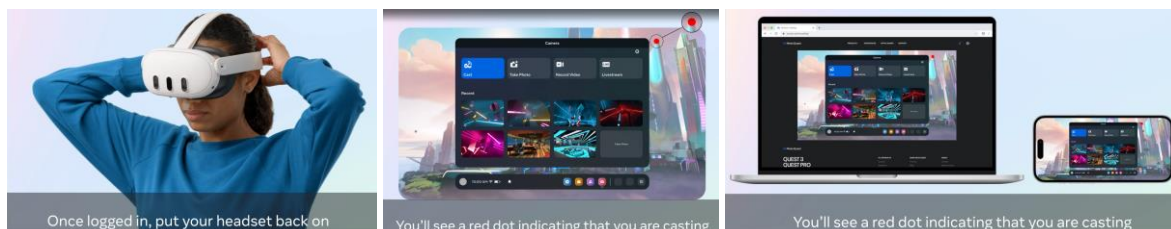
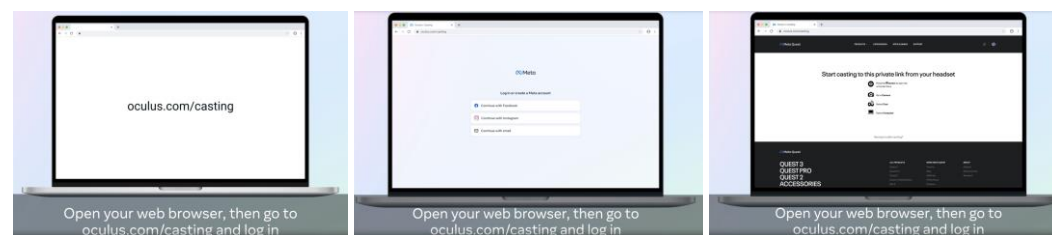
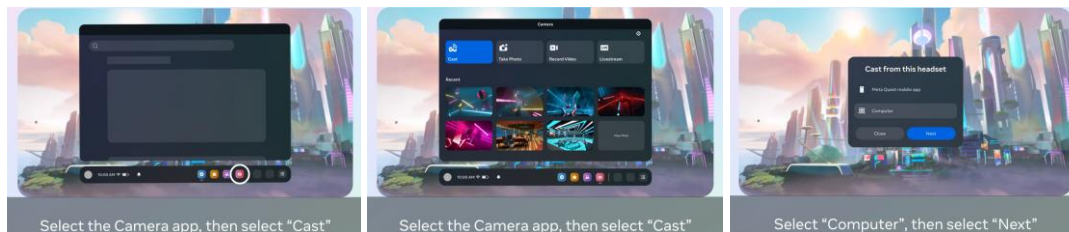
<https://www.meta.com/help/quest/articles/in-vr-experiences/oculus-features/cast-with-quest/>



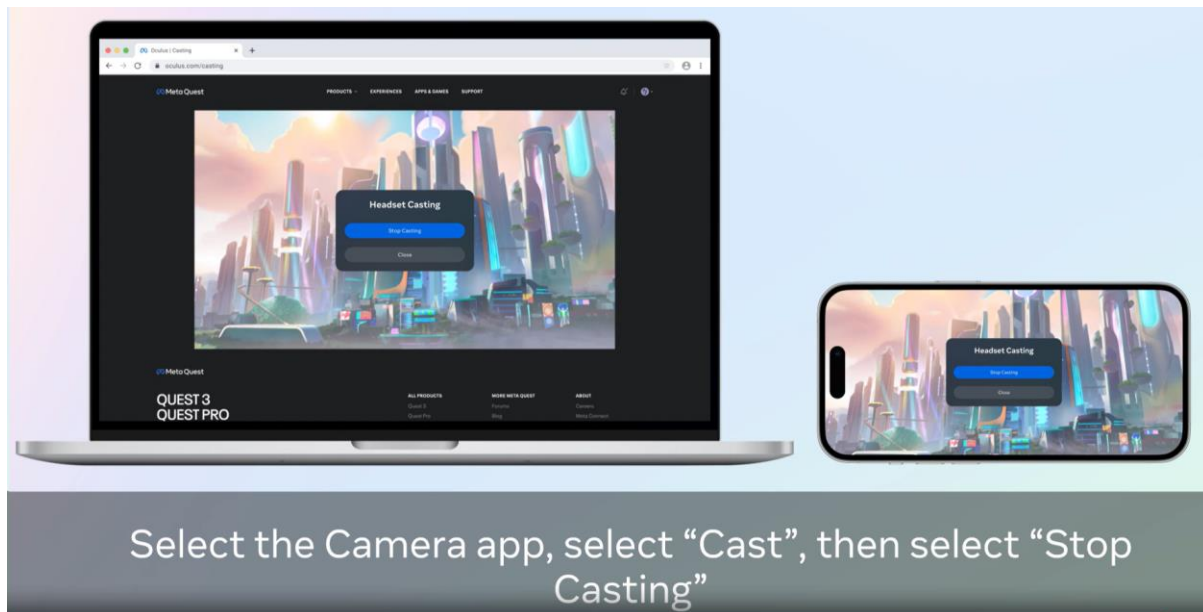
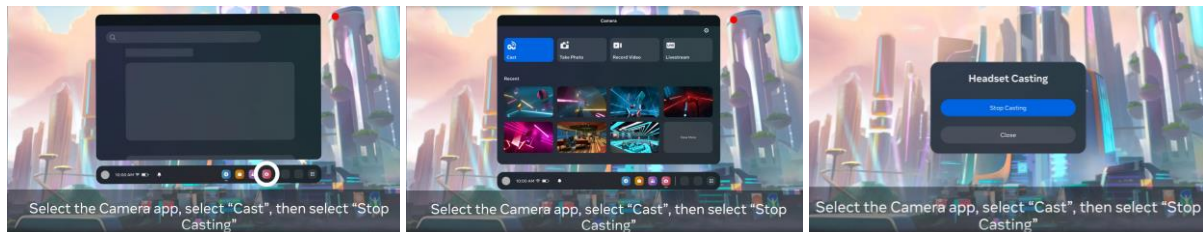
4.2. To start casting on your phone



4.3. To start casting on your computer



4.4. To stop casting from the Meta Quest 2 headset



Meta Quest

Contact support at [meta.com/help/support](https://www.meta.com/help/support) if you're still experiencing issues.

4.5. Useful links

- Meta Quest Support: <https://www.meta.com/help/support/>
- Video demonstration for Casting to a screen: <https://www.meta.com/help/quest/articles/in-vr-experiences/oculus-features/cast-with-quest/>

5. Wireless VR Streaming

If Wi-Fi is available at the time users are playing the VR game, then you can stream using the instructions below:

Before you cast:

- Download the Meta Quest mobile app to your phone. Detailed instructions can be found here: <https://www.meta.com/help/quest/articles/in-vr-experiences/oculus-features/cast-with-quest/>
- Make sure your phone, computer and headset are on the same Wi-Fi network.
- Connect to your Meta account on both the Oculus Headset and the PC/device you are casting to. Make sure the headset and device you are casting to are logged into the same Meta account.
- To cast to a computer: Your computer must be on the same Wi-Fi network as your headset to cast with Meta Quest.

5.1. Cast from VR

Note: Your computer or mobile phone must be on the same Wi-Fi network as your headset to start casting.

To start casting:

1. From your Meta Quest headset, press  /  on your controller to open the universal menu.
2. Select Camera then select Cast.
3. Select Computer or Meta Quest mobile app to begin casting.

To stop casting:

1. From your Meta Quest headset, select **Camera** then select **Cast**.
2. Select **Stop Casting**.

5.2. Cast to a phone

Note: Your phone must have Bluetooth turned on and connected to the same Wi-Fi network as your Meta Quest.

To start casting:

1. From the Meta Quest app, tap **Menu** then tap **Casting**.
2. Tap the headset you want to cast from. If you don't see your screen at first, tap **Other Devices** to search your network for an available device.
3. Tap **Start** then select your phone to begin casting.

To stop casting:

1. Tap Stop casting in the Meta Quest app when you're ready to stop sharing.
2. If you close the Meta Quest app or open a different app on your phone, casting will be stopped.



5.3. Cast to a computer

Note: Your computer must be on the same Wi-Fi network as your headset to cast with Meta Quest.

To start casting:

4. On your computer, open your browser then go to oculus.com/casting and log in.
5. Put your Meta Quest headset on and press  /  on your controller to open the universal menu.
6. Select **Camera**, then select **Cast**.
7. Select **Computer** then select **Next** to connect.

To stop casting:

1. From your Meta Quest headset, select **Camera** then select **Cast**.
2. Select **Stop Casting**.

Troubleshooting:

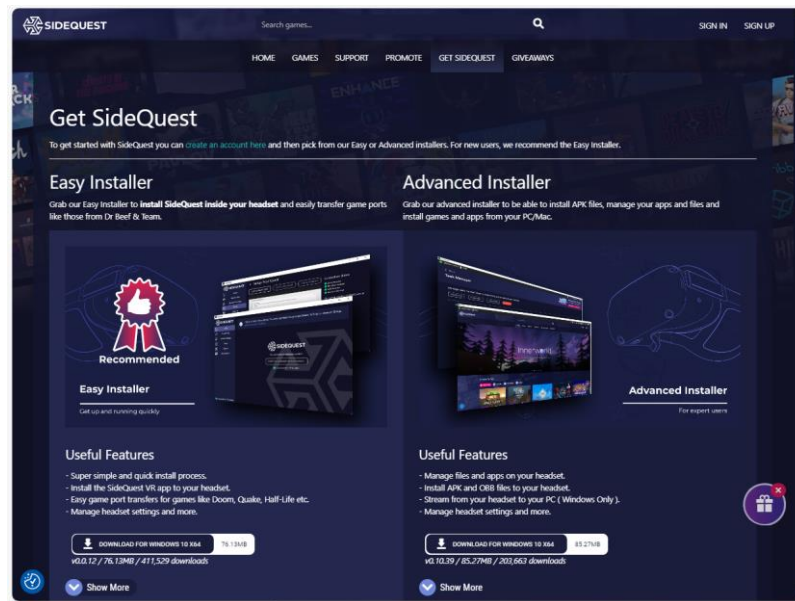
- Troubleshooting tips for casting to a screen with your Meta Quest can be found here: [Troubleshoot casting to a screen with Meta Quest | Meta Store](#)

6. Cable VR Streaming

If Wi-Fi is not available at the time users are playing the VR game, then you can stream using a cable connection following the instructions below:

Before you cast:

- Install the [SideQuest application](#) on your laptop/PC:
 - Visit the official SideQuest website (<https://sidequestvr.com/setup-howto>).
 - Download the SideQuest installer for your operating system (Windows, Mac, or Linux).
 - Run the installer and follow the on-screen instructions to install SideQuest.



To connect your Meta Quest 2 to your Computer

- Use a high-quality USB-C cable to connect your **Meta Quest 2 Headset** to the **computer**. (Note: laptop/PC should already have the SideQuest application installed as explained above).
- Put on your headset and accept any permissions that pop up regarding data access. Accept the PC Connection Request notification in the Headset.

To install Applications using SideQuest

- Open SideQuest on your Computer
- Launch the SideQuest application.
- Connect the Headset.
- Once connected, SideQuest should recognize your headset. You'll see the status at the top of the SideQuest window.
- Choose the **install** icon  as seen in the Figure below, choose the **.apk** file and proceed to Install the Application.





To launch the TIME2ACT Applications

On your Meta Quest 2 Main Menu panel, navigate to:

- Home
- Library
- Unknown Sources
- Choose the app

To start streaming to a PC using the Link cable (USB-C):

1. Ensure the link cable is connected both to the Meta Quest headset and to a laptop/PC.
2. Ensure the laptop/PC already has the SideQuest application installed.
3. Ensure the headset is on and running.
4. Accept the PC Connection Request notification in the Headset.
5. Launch the **Command Prompt** application on your computer (search for Command Prompt).
6. Depending on where the following application (scrcpy.exe) is located on your file system, type the following command -- no-audio and press Enter:

Example 1:

```
"C:\Users\[REPLACE WITH YOUR  
USERNAME]\AppData\Roaming\SideQuest\scrcpy-win64-v2.0\scrcpy.exe" --  
no-audio
```

Example 2:

```
"C:\Users\[REPLACE WITH YOUR  
USERNAME]\AppData\Roaming\SideQuest\scrcpy\scrcpy.exe" --no-audio
```

7. You should now be able to stream what is on the user Meta Quest headset. Please remember that the headset must be running before executing the above command.

Troubleshooting:

- Troubleshooting tips for casting to a screen with your Meta Quest can be found here: [Troubleshoot casting to a screen with Meta Quest | Meta Store](#)