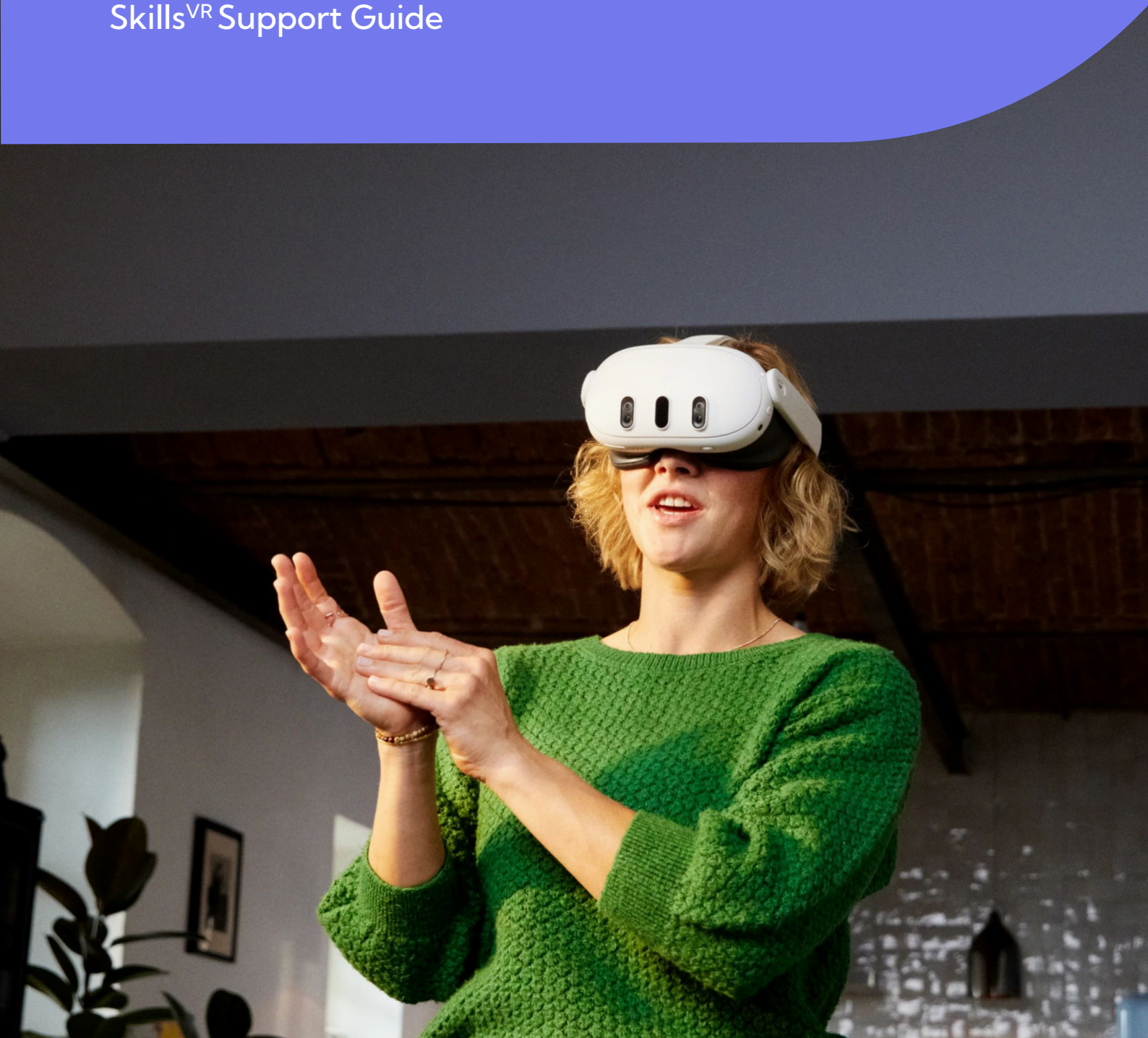




INTERACTING WITH VIRTUAL ENVIRONMENTS

SkillsVR Support Guide



STEP-BY-STEP GUIDE

VR Environment Interaction

Using VR Controllers

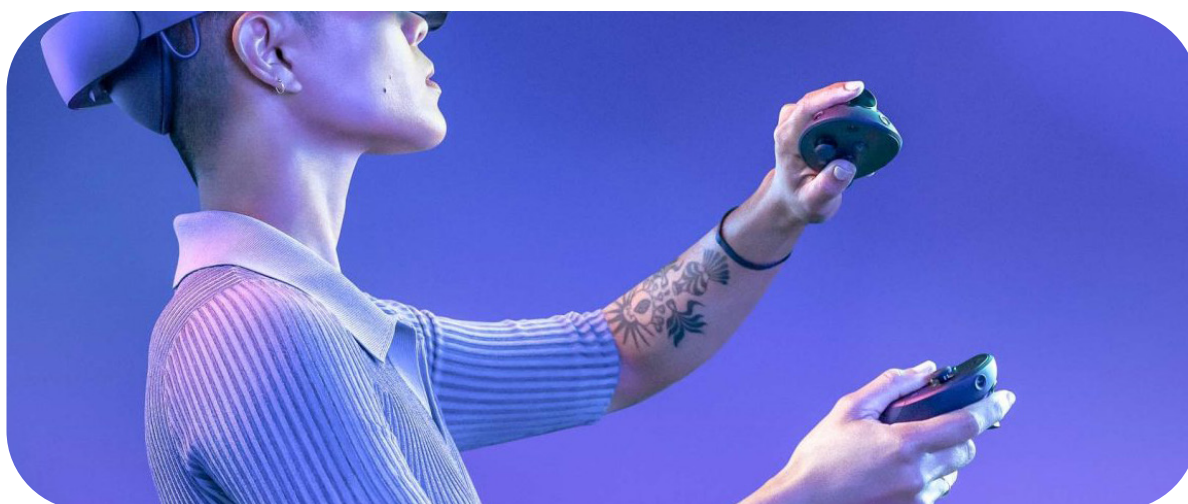
- » VR controllers are essential tools that allow you to interact with the virtual environment. The controllers are equipped with buttons and sensors that enable various actions, such as selecting, grabbing, moving, and scaling objects.

General Controller Buttons and Functions

- » Trigger: Located under your index finger, the trigger button is used to press virtual buttons and select or interact with objects in the VR environment. It's the primary button for confirming actions.
- » Grip: Positioned under your middle fingers, the grip button allows you to grab, move, rotate, and resize objects. Press and hold the grip button to initiate these interactions.

How to Interact with Objects Using Controllers

- » Selecting an Object: To select an object, hover over it with the pointer from your controller and press the trigger button.
- » Moving Objects: To move an object around the environment, point one controller at the object, press and hold the grip button, and then move the controller to shift the object.
- » Rotating and Resizing Objects: To rotate or scale an object, point both controllers at it, press and hold the grip buttons, then move your hands apart to scale up or together to scale down, or rotate the controllers around each other to rotate the object.



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VR Environment Interaction

Moving in VR

There are several methods for movement in VR, each with its own set of advantages and challenges. Choosing the right movement method depends on the VR experience and your comfort level.

Movement Types

- » Smooth Moving: Offers a more natural feeling, but some users may experience discomfort or nausea.
- » teleporting (Jumping to a new spot): Ideal for preventing motion sickness, but lacks the fluidity of natural movement.
- » Room-Scale VR (Moving in real physical space) Best for truly immersive experiences but requires ample space to move around.
- » Walking in Place (Moving legs without going anywhere) Can be a good option to simulate walking without needing a large space, but it may be physically tiring.

Enhancing the Experience with Sound

- » Sound plays a crucial role in VR by making the virtual world feel more real and enhancing immersion. Here's how to leverage sound effectively in VR:
- » 3D Sound: Use 3D audio to simulate the direction and distance of sounds, helping users understand where things are in the virtual space.
- » Sound Effects: Incorporate sound effects that match the actions happening in the virtual environment, such as footsteps, object manipulation sounds, or ambient noises.
- » Music: Use background music to set the tone or atmosphere, enhancing the emotional experience of the VR world.
- » Good sound design helps users feel like they're truly present in the virtual environment.

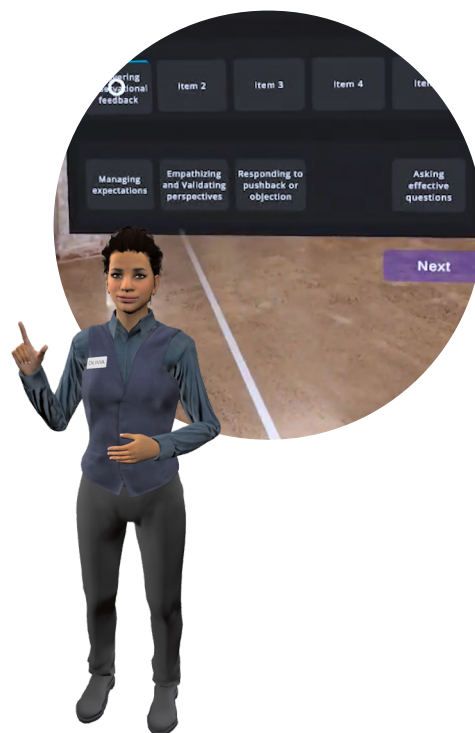
STEP-BY-STEP GUIDE

VR Environment Interaction

AI Interaction

Skills^{VR}'s Generative AI capabilities are transforming training with adaptive questioning and decision-making scenarios. AI-driven tools evaluate learner responses to realistic situations, testing their decision-making abilities under pressure.

Our Immersive Generative AI Coach can be used as a tutor or coach for learners, connected with any LLM. This means that learners can ask the avatar (Generative AI Coach) any question related to their topic and the avatar responds naturally and consistently. [Explore Generative AI modules through Skills^{VR} Marketplace.](#)



Voice and Body Controls in VR

In addition to traditional controller inputs, voice and body controls are increasingly integrated into VR experiences. These methods provide additional ways to interact, especially when using your hands or eyes isn't ideal.

Voice Controls

- » Give Commands: Use voice commands to trigger actions or interact with menus.
- » Communicate with Others: If the VR experience includes multiplayer elements, voice controls allow users to talk to each other.

Body Controls

- » Movement: Your body's movements can be tracked to move through the virtual environment.
- » Interaction: Gestures like reaching, waving, or crouching can trigger interactions with objects in the virtual world.
- » Body and voice controls are especially useful when your hands are occupied or if you want to keep the interaction more natural and immersive.

STEP-BY-STEP GUIDE

VR Environment Interaction

Eye-Based Controls in VR

- » Eye tracking, which uses sensors to detect where you are looking, is an advanced feature that allows for more refined interaction in VR. Eye-based controls can enhance interaction by:
- » Aiming: You can aim at targets by looking at them.
- » Selecting Objects: Simply looking at an object can initiate selection, making it feel more natural
- » Moving Around: Some VR systems allow you to move by looking at specific areas, enhancing navigation.
- » Eye tracking also helps improve graphic rendering by focusing resources on what you're actively looking at, increasing the realism of the experience.



Using Hands in VR

Hand tracking technology allows users to interact with virtual objects naturally using gestures, without the need for controllers. This is becoming more common with newer VR systems like the Oculus Quest.

Types of Hand Interactions:

- » Direct Manipulation: This method involves physically touching virtual objects to manipulate them, offering a very intuitive way to interact.
- » Hand Beams: By pointing with your hands, you can interact with distant objects, extending the range of your reach.
- » Gesture Recognition: This involves using hand gestures to issue commands, such as waving to activate something or making a fist to grab an object.

STEP-BY-STEP GUIDE

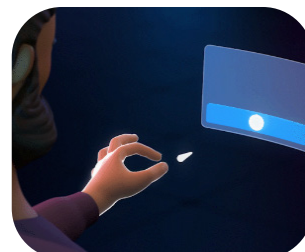
VR Environment Interaction

Hand Tracking with Meta Quest

Hand tracking for Meta Quest headsets currently supports the following gestures:

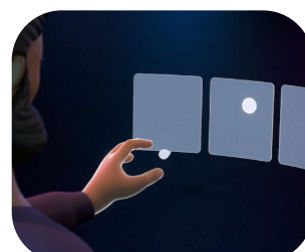
Point and pinch: Making selections and opening apps

- » When the cursor appears, point your hand at what you want to select. Then, pinch your thumb and finger together to select it.



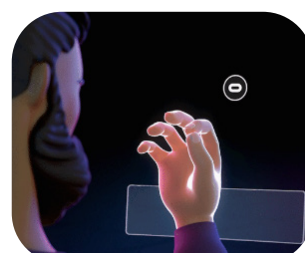
Pinch and drag: Scrolling up, down, left or right

- » Pinch your fingers inwards. While still pinched inwards, move your hand up, down, left or right to scroll. Once you've finished scrolling, release.



Palm pinch: Brings you back to your universal menu.

- » Look at your palm at eye level, then hold your thumb and index finger together until has been filled, then release.



Touch: Typing and directly interacting

- » Directly tap UI elements, such as keyboard keys with your fingers to interact with them. Or grab windows with your thumb and index finger to move them.



To turn Meta Quest hand and body tracking on or off:

- Press Meta button for VR headset controllers / oculus icon on your controller to open the universal menu.
- Select the clock on the left-hand side of the universal menu to open Quick settings.
- Select Settings in the top right, then select Movement tracking.
- Select the toggle next to Hand and body tracking to turn this feature on or off.

Still can't find the
**answer you're looking
for?**

Contact Support



www.skillsvr.com
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