



How to Guide: Using Nanome at the Chemistry Library

Before getting started, please get familiar with the VR headset's basic controls:

- The **joysticks** navigate your virtual environment.
- The **trigger** (on the front of the controller) selects objects in your environment.
- The **A button** (right controller) and **X button** (left controller) select objects in your environment.
- The **B button** (right controller) and **Y button** (left controller) return you to the previous screen or menu.

The **Oculus button**  on the right controller brings up the universal menu. You can also press and hold the Oculus button to recenter your headset view.

- **Grip button** (on the side of the controller) grabs objects or makes a fist when using your virtual hands.
- The **Menu**  brings up the menu inside apps and experiences.
- You can press any button to wake the controllers after you turn on your headset.

Visualizations for how to use these controls to complete specific functions in the Nanome app are on **pages 5-6** of this guide.


0. Fitting and turning on the headset

- Turn on the headset by pressing the side button near your right ear. The headset should be fully charged, but if not, you can still use it while it is charging. A charging cable is provided in the storage case.
- If you use glasses, please use the glasses spacer provided with the headset. To install, remove the soft facial interface, insert the glasses spacer, then reattach the facial interface. If you need help, please ask a library staff member.
- Adjust the spacing between the headset lenses by gently pulling the lenses inside the headset together or apart with your fingers. There is a small window between the lenses with "1, 2, or 3" which indicates the lens spacing settings. Adjust so that the picture is clearest for you. Adjust the arms of the headset (up or down) to further improve the clarity of the picture.
- Adjust the straps. Adjust the side strap first by pulling the plastic handles together or apart. Then, put on the headset and adjust the velcro on the top strap.
- When finished, the headset should rest lightly on your face, and the picture should be clear. Pick up the controllers, with one in each hand. Secure them to your wrists using the straps.
- To adjust the volume, use the plus and minus buttons available on the bottom of the headset.

1. Setting up your boundaries

- When you turn on the headset, the Oculus lobby will open. This where you can load an application. To select an option in the different menus that appear, point your
- Create a new boundary when prompted. This may happen as soon as you turn on the headset, or only once you load an application.
- Touch the floor with the controller.
- Confirm boundary, then select **Switch to Stationary boundary** & confirm.
- For your safety, please ensure that there are no objects or furniture within your boundary. If necessary, study room furniture may be moved – please ask a library staff member for assistance.

2. Opening Nanome

- Select the Oculus button  on the right controller to bring up the **Universal Menu** (grey bar at the bottom of view). Note: The menu might already be there – if you press the button, it will then disappear. Simply press the button again to pull up the menu.
- Select the 3x3 grid icon called **Library** to open the apps panel
- Select search and type in **Nanome**
- Click **Nanome** to open the application.
- If prompted, set up boundaries as outlined in Step #2 above.

3. Nanome Lobby

- If not already signed in, enter the following Nanome account info to access our Nanome license.
 - WALL-E (VR Headset #1):
 - Username: uoft_stg_1
 - Password: Nanome2024!
 - EVE (VR Headset #2):
 - Username: uoft_stg_2
 - Password: Nanome2024_2!

4. Nanome Tutorial

- Start the tutorial by selecting **Run Tutorial** to learn how to use the Nanome interface. This is an orange icon in the top right of the menu above “Public Server.”

5. Create a room

- Select **Create a Room** in the lobby tab
 - Set the room type to **Public**, but enter a password so you can control who joins.
 - Others who are using Nanome can join the room if you give them the room's password, allowing you to meet with them in real time.
- When you first enter a room, you will be locked in position. To edit your location, hold up your left wrist to see the menu. Select the lock icon on the far left to **Edit position**.

6. Moving around the environment

- Point to a spot on the floor and click & hold with your index finger to move around the virtual space.

7. Manipulating objects (see also Nanome controls on pages 4-5 below)

- To scale the environment or structures, press down the middle finger **grip button** on each controller and bring the controllers together or pull them apart to scale.
- To grab a structure, point to the structure and press the middle finger **grip button** on one of the controllers. Use the joystick to move the structure closer or further away

8. Load a structure

- Click the **Load menu** (green plus sign) to load molecular structures for editing and manipulation in Nanome. You can do this by searching for the molecule in an online database. Nanome can access and load structures from Protein Databank, PubChem, Drugbank, and other online databases. To do so:
 1. Open the **Load menu**, then select **Source** and choose the database you would like to search.
 2. Enter the **unique identifier** for the molecule you would like to load in the search bar (e.g. 6D6V for telomerase in RSCS Protein Data Bank). The identifier will be specific to the molecule and the database – if you don't know the identifier for the molecule you are interested in, you may need to look this up in the database on your computer first.
 3. Select **Load** to load the molecule into your workspace.

Note: There is a limit on the size of the molecules that can be imported. A scale at the top of the screen will indicate how close (or how far) to the device limit you are.

- When the structure has been loaded, use the **Display** menu to control the visualization of atoms and bonds (Wire, Stick, Van Der Waals, Ball & Stick), ribbons, surface, and sub-structure.
- The **Colour** menu allows you to pick a colour for each ribbon or atom.
- The **Modify** menu allows you to edit the selected structures or apply certain computations on them.
 - The **Tools** tab allows you to measure distances, select certain atoms, or rotate bonds
- On your left wrist, you can access Quick Menus, manage Room Users, adjust certain settings, or return to the lobby

9. Powering off and storing

- When finished, quit Nanome by clicking the Oculus button on the right controller once. Select **Quit** from the menu that appears.
- Press and hold the power button on the right of the headset until the device turns off. If prompted, select **Shut Down**.
- Put the headset, controllers, and spacer back inside the case, and visit our service desk to return it. If you used the glasses spacer, please remove it before returning.

Guide to Controls for Navigating and Using Nanome



Trigger

Press to interact with the menu buttons and interfaces your laser is pointed at.



Grip

Press and hold. Grab objects with both grips to scale.



Left Top Button

Press to open and close the action menu, which allows quick access to tools.



Right Top Button

Press and hold to open tools menu. Release on the desired tool.



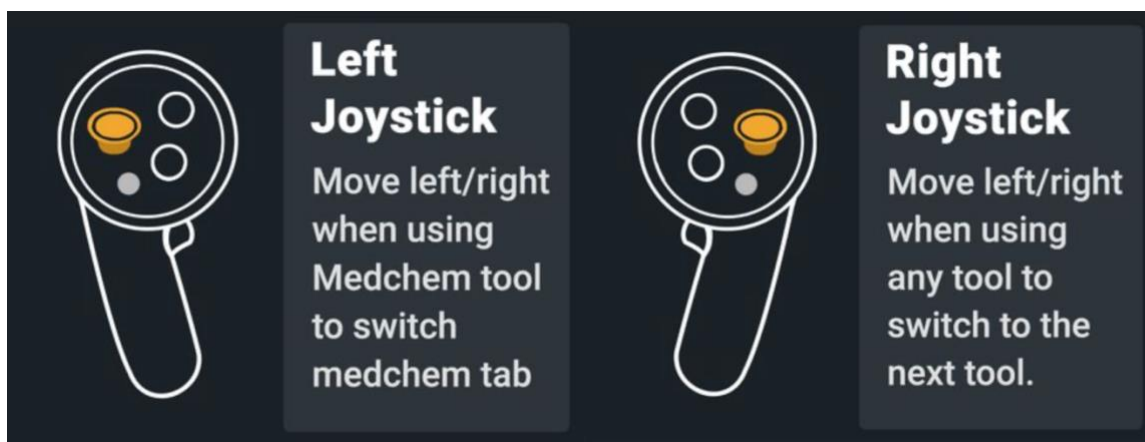
Both Joysticks

Move up and down when grabbing object to push/pull the object.



Menu Button

Press to open settings/help menu.



For further documentation, please consult **Nanome Docs** at <https://docs.nanome.ai/>.