



# 3D Organon VR Anatomy

Standard / Premium Edition

## User Manual

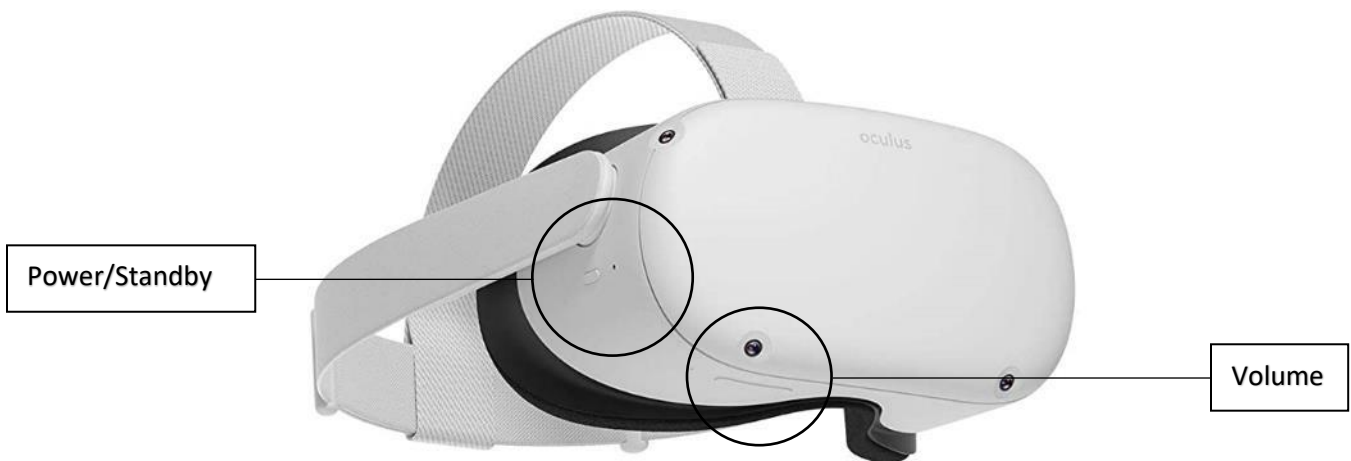
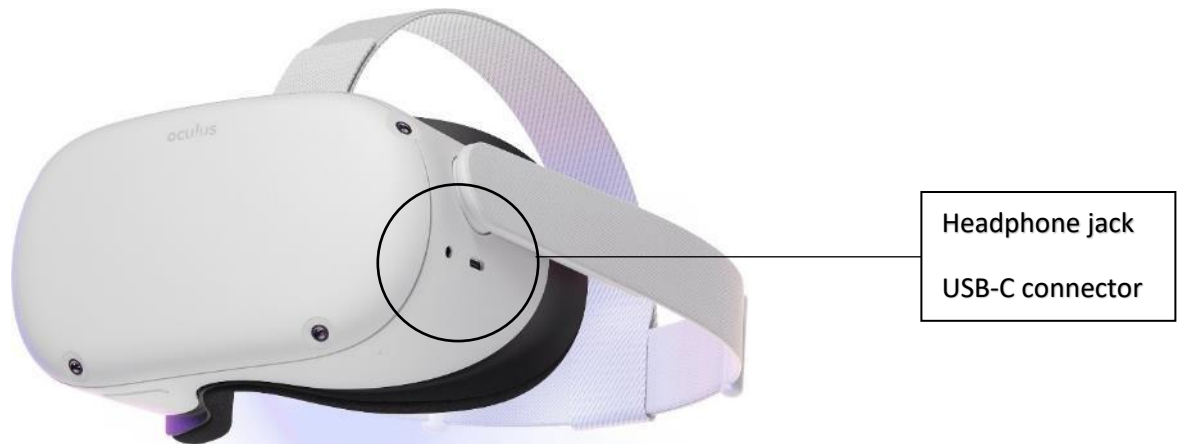
for Oculus Quest 1 & 2

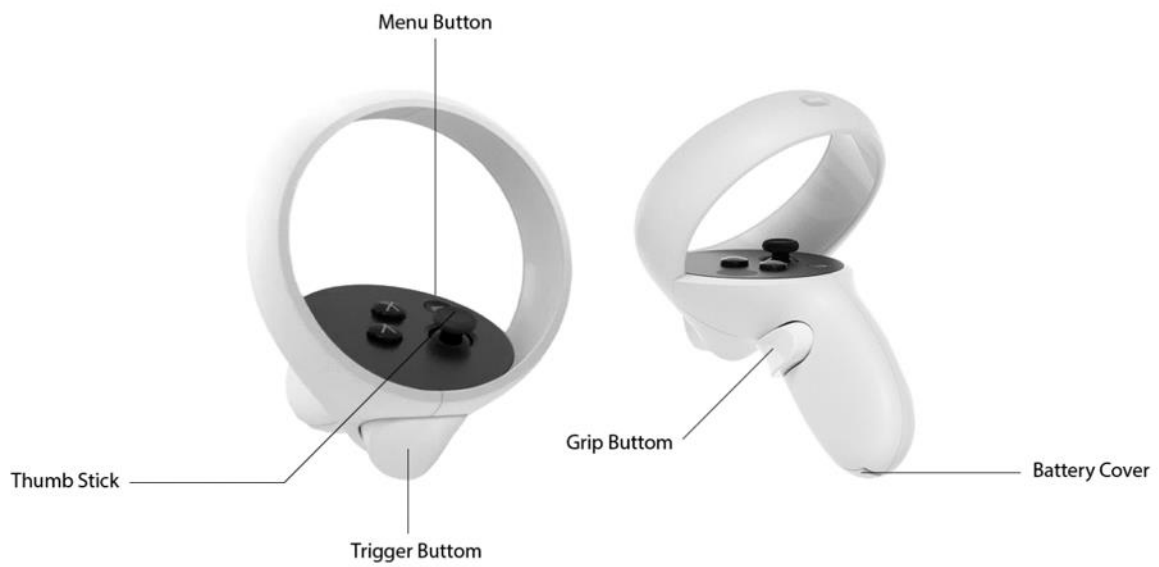
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## 1 Headset and Controllers





## 2 What's IPD and how do I adjust it on my Oculus Quest 2 or Quest?

Two terms that are often used when talking about headset adjustments and clarity are “IPD” and “lens spacing.”

- IPD stands for Inter Pupillary Distance, the distance between your pupils.
- Lens spacing refers to the distance between the clearest spots on the two lenses inside your headset.

To achieve the best image clarity, lens spacing should line up with your IPD as much as possible. Quest headsets best accommodate IPDs between 56 and 70 mm, or about 95% of adults. Oculus Quest 2 has 3 distinct IPD positions (Figure 5).

For finding your IPD please visit the Oculus support website

<https://support.oculus.com/351344152731317/>



Figure 1. Oculus Quest 2 IPD Adjustment

### 3 Installation

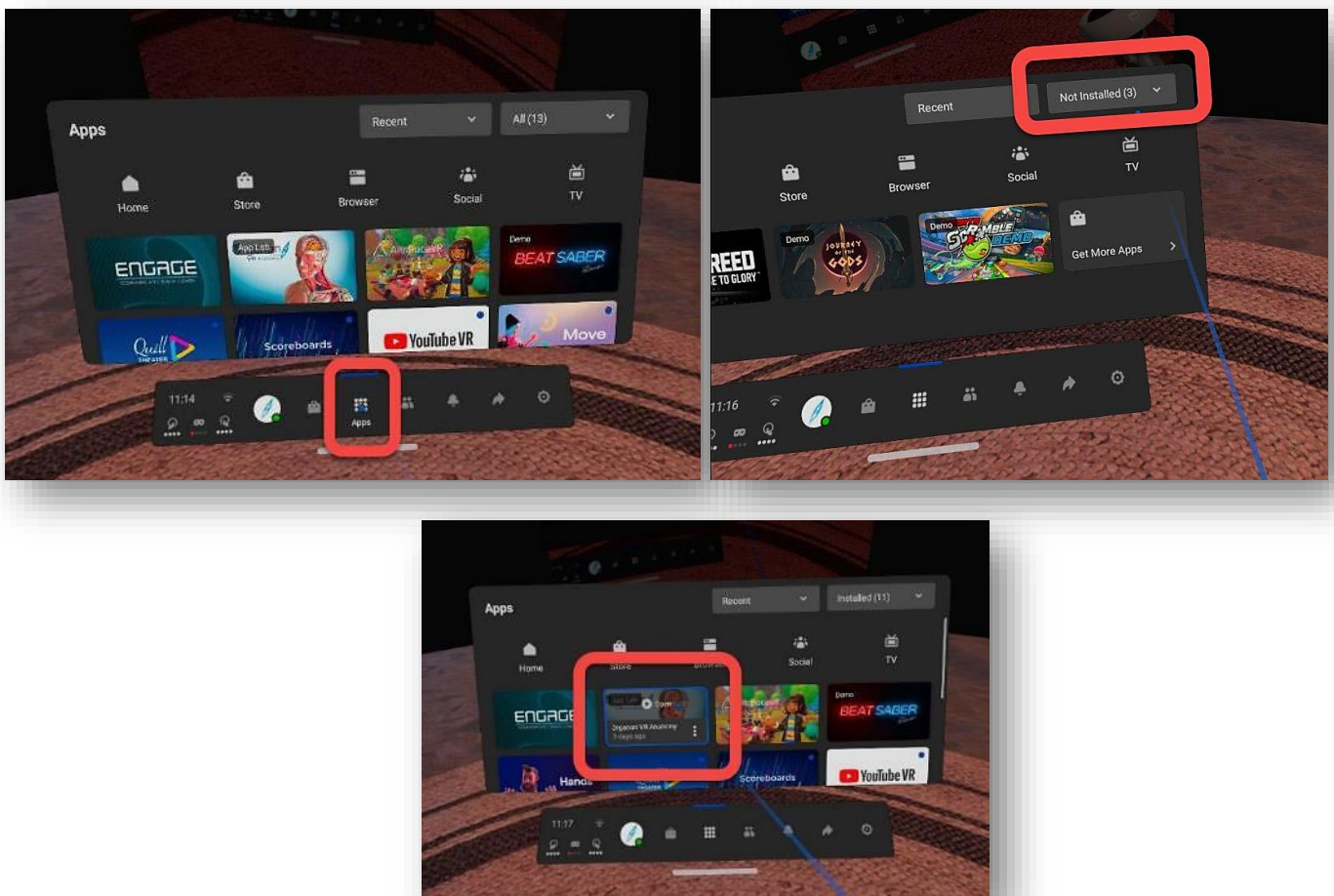
First, make sure that your phone is connected to your headset. For that, you will need to download the Oculus app.

You will find 3D Organon on App Lab here:

[https://www.oculus.com/experiences/quest/6218475558223281/?ranking\\_trace=0\\_6218475558223281\\_QUESTSEARCH\\_4fb26561-7cf7-4a66-8558-a3c880d3ae78](https://www.oculus.com/experiences/quest/6218475558223281/?ranking_trace=0_6218475558223281_QUESTSEARCH_4fb26561-7cf7-4a66-8558-a3c880d3ae78)

The link will take you through to the Oculus Quest portion of Oculus' website and as long as you're signed in to your Facebook account, you'll be able to add it to your library (by clicking on Free).

Then to install 3D Organon just put your VR headset on go to **Apps** then from the upper right drop-down menu go to the **Not Installed** category and click install on the 3D Organon icon.



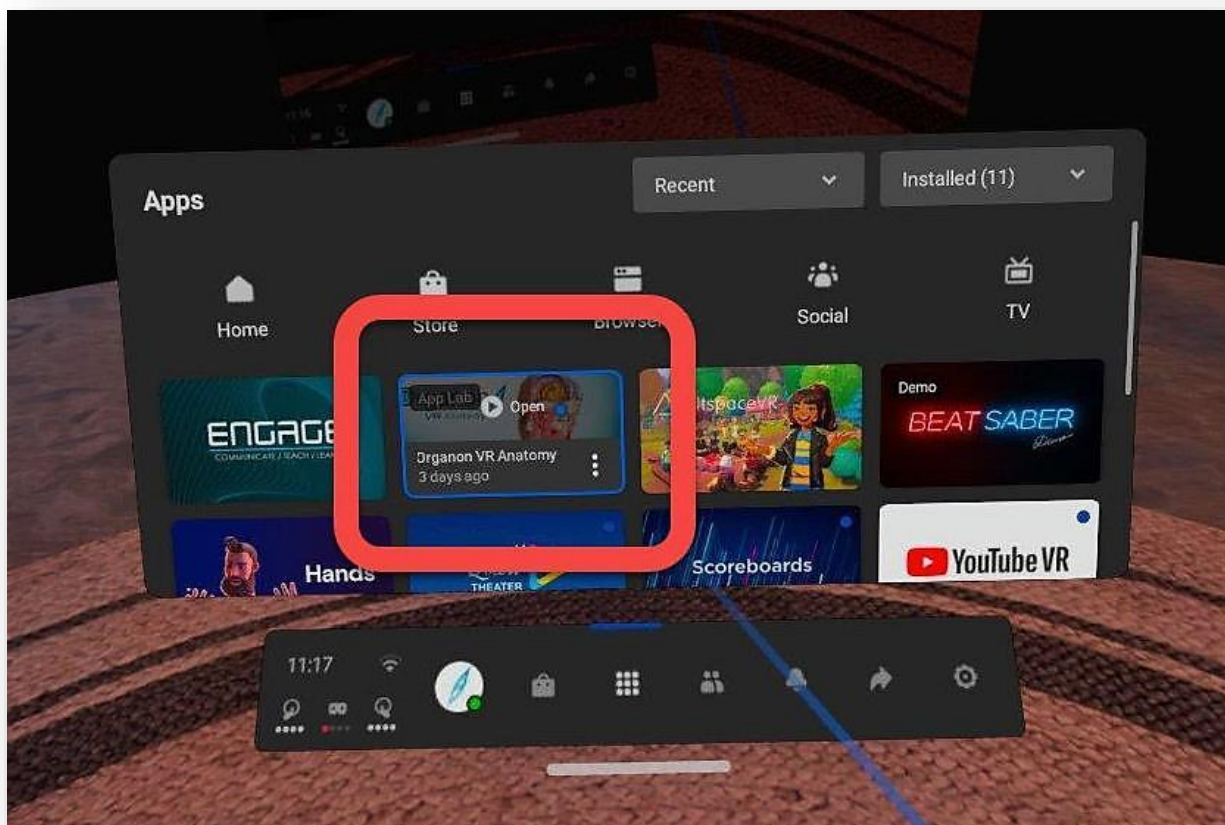


## 4 Launch and Log in 3D Organon VR Anatomy

- Just click on the Apps icon with the trigger button from your controller.



- Then click Open to launch 3D Organon VR Anatomy.





➤ Log in with your credentials:

**Username:** your email

**Password:** created during the activation of your 3D Organon's account; if you forget your password, you can reset it [Here](#)

**License key:** sent to your email for a selected device (use the last 10 characters or the whole key)

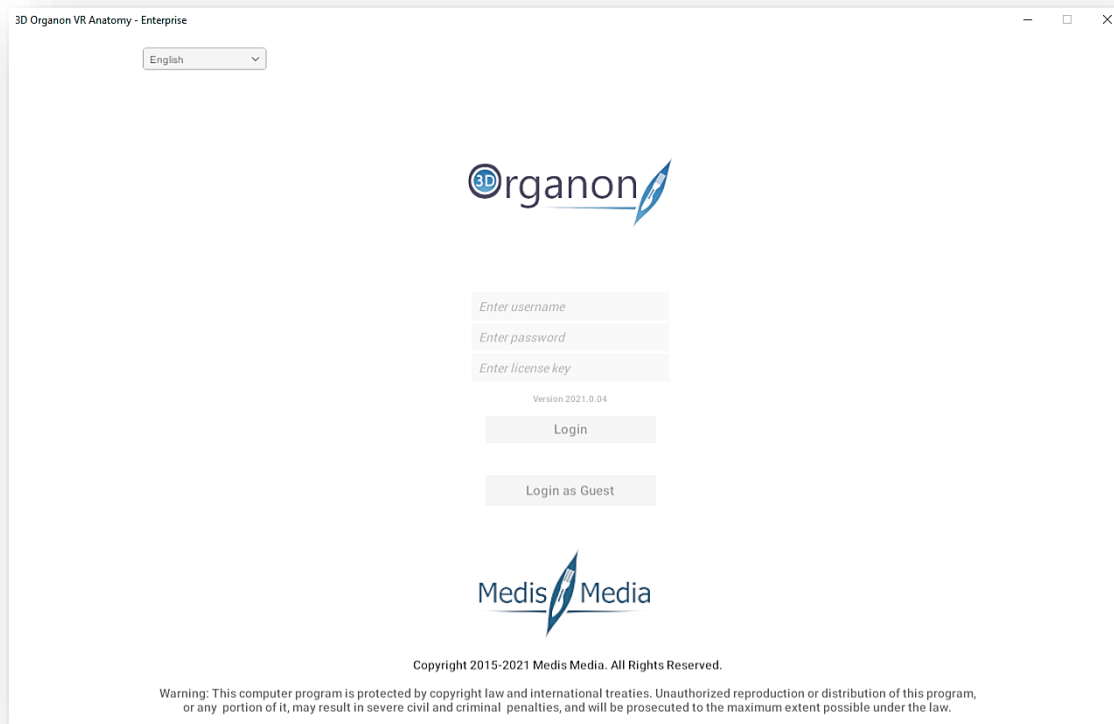


Figure 1. Login Screen

- Review the [Terms and Conditions](#), mark the checkbox to acknowledge your agreement, and press the 'I agree' button.

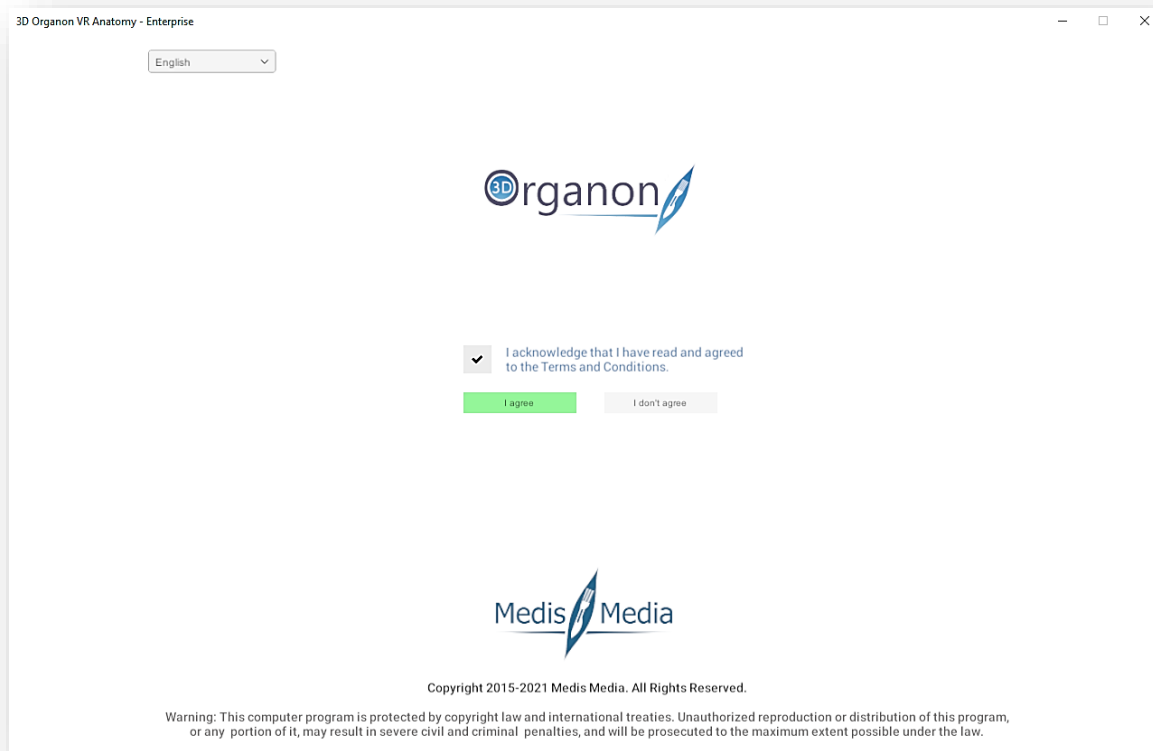


Figure 2. Terms and Conditions

## 5 User Interface

- On the Left-side panel, you can find options such as the Menu, Network, Help, Tools, and Favorites.
- On the Right-side panel, you can choose between body Regional anatomy (preselected), Microscopic anatomy, body Actions, Quiz and Environment switch.
- In the Main Menu Panel, you can see options based on the available chosen options of the left- and right-side panels.

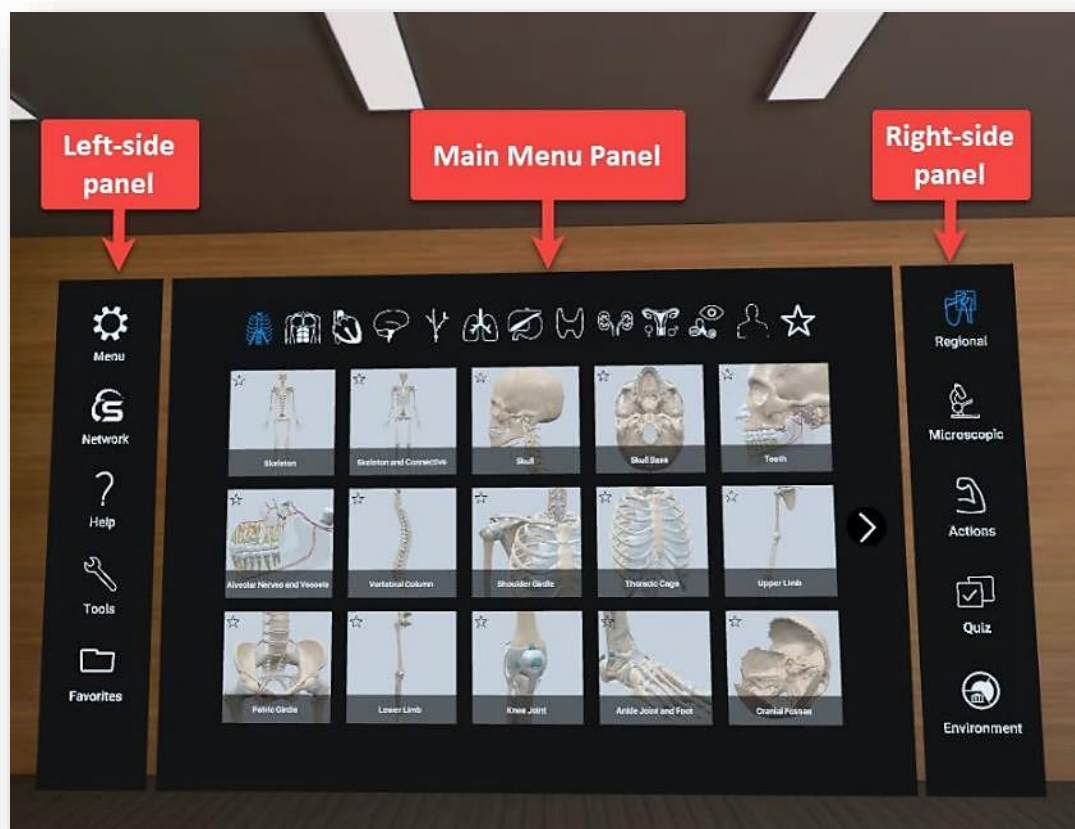


Figure 3. User Interface

- By selecting an anatomical structure with the trigger button the Options Panel appears on the right side of the user's view field.
- In the Options Panel, you can find information and operate functions (3) on a selected structure.
- On the first box (1) you can view the breadcrumb trail in a body system that the selected structure belongs to. On the second box (2) the second language choice appears (default: Latin terminology).
- On the third box (3) you can operate different functions on the selected structure.
- On the fourth box (4) you can view the body system icons related to a regional anatomy scene loaded from the main menu panel (Figure 4). Body system's in users view can switch on / off from these options.
- On the fifth box (5) you can view the anatomical definition of the selected structure.

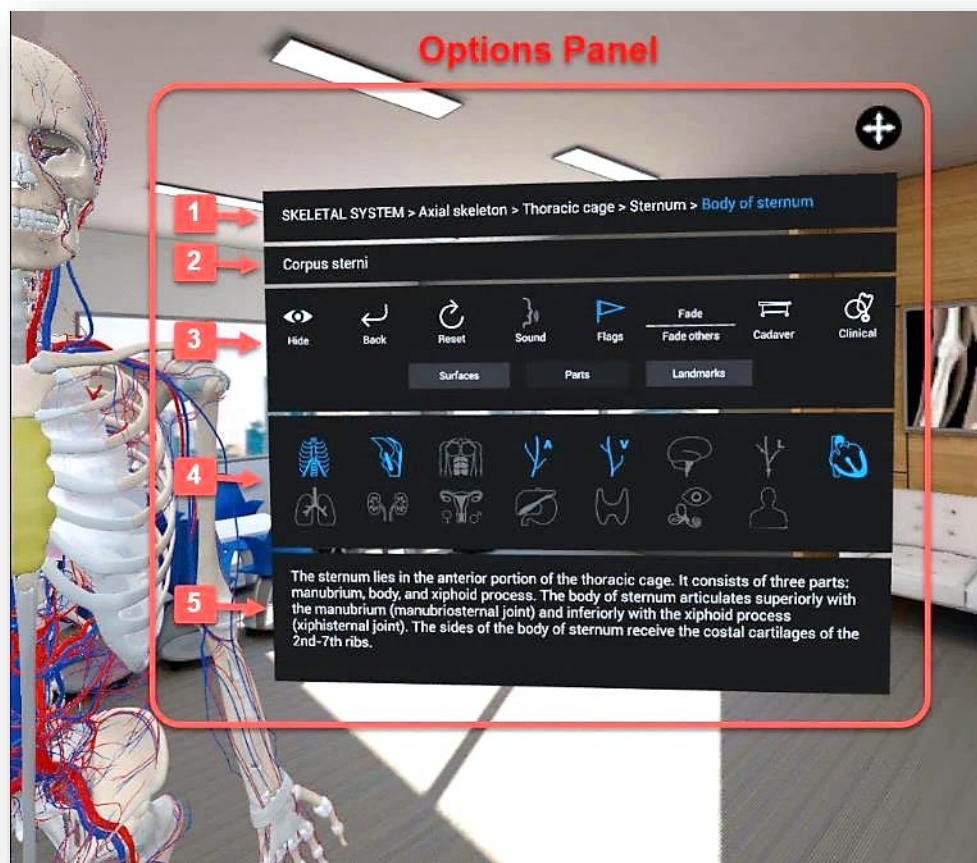


Figure 4. Scene View and Options Panel

## 6 Languages

1. If you want to change the language of the app, click on the **'Menu'** icon on the left side panel.
2. You can select Primary and Secondary language options in the drop-down menu. The secondary language is displayed for anatomy terms only. The primary language includes a full translation of the user interface and anatomical definitions.
3. The whole 3D Organon's knowledge database is translated into 15 languages: English, Latin (terminology), traditional Chinese, simplified Chinese, German, French, Spanish, Portuguese, Italian, Russian, Ukrainian, Polish, Georgian, Thai, and Greek (UI only).

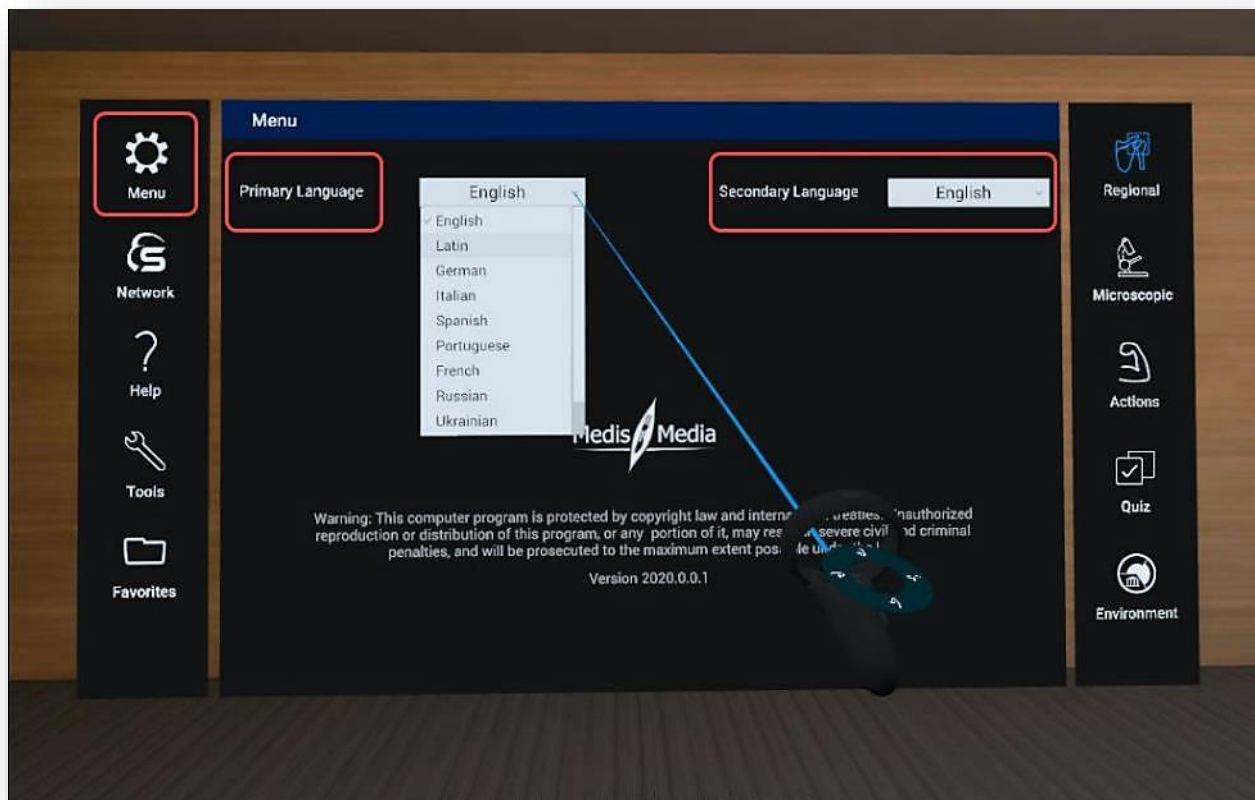


Figure 5. Languages

## 7 Help

1. To find helpful videos and tutorials, click on the '**Help**' icon on the left side panel. Scroll down with your controller to check the videos. However, the preferred method for learning 3D Organon functions is by using this manual. Check for updated versions periodically.

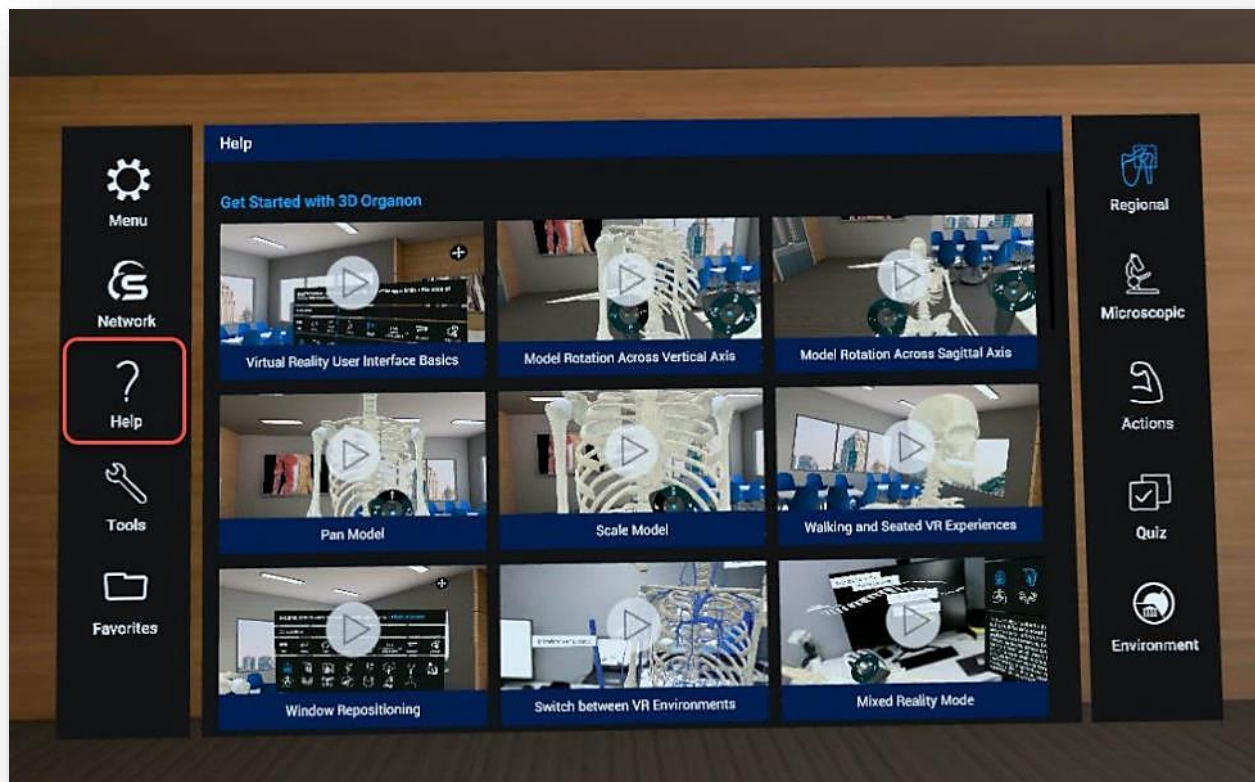


Figure 6. Help Videos



## 8 Get Started with 3D Organon

Note: One controller serves for model rotation across the vertical and horizontal axes and the other controller serves for panning and scaling the model.

### 8.1 Model Rotation Across Vertical Axis

To rotate the model across vertical axis, first move the thumbstick to the left or right and then press it.

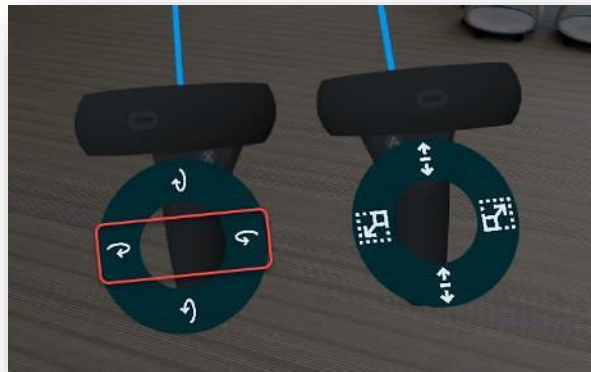


Figure 7. Rotation Across Vertical Axis

### 8.2 Model Rotation Across Horizontal Axis

To rotate the model across horizontal axis, first move the thumbstick upwards and downwards and then press it.

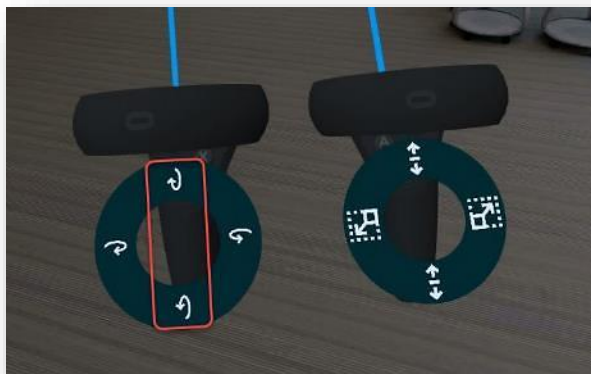


Figure 8. Rotation Across Horizontal Axis



### 8.3 Pan Model

To pan around the scene view, first move the thumbstick upwards or downwards and then press it.

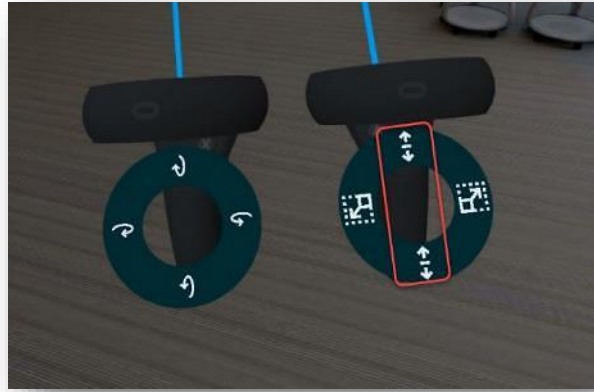


Figure 9. Pan Model

### 8.4 Scale Model

To zoom the model in/out, first move the thumbstick to the left or right and then press it.

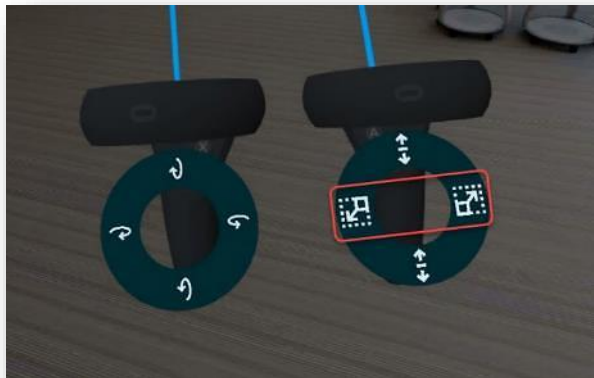


Figure 10. Scale Model

## 8.5 Panel Repositioning

1. To change the position of the Options Panel, hover the pointer on the **'Crossed arrows'** icon, hold the trigger button and move the window to the desired location.



Figure 11. Panel Repositioning

## 8.6 Multiple Environments

1. Switch between VR environments by pressing the '**Environment**' icon on the right side panel.



Figure 13. Change VR Environment. Default- Tutorial Room

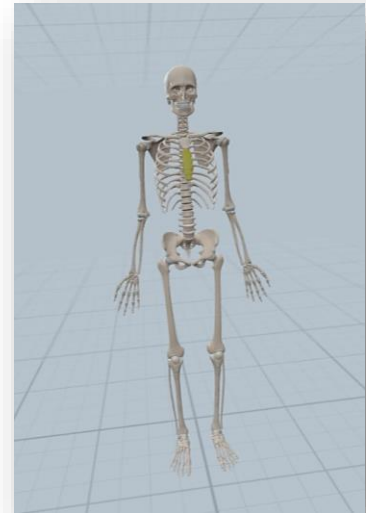


Figure 14. White Environment

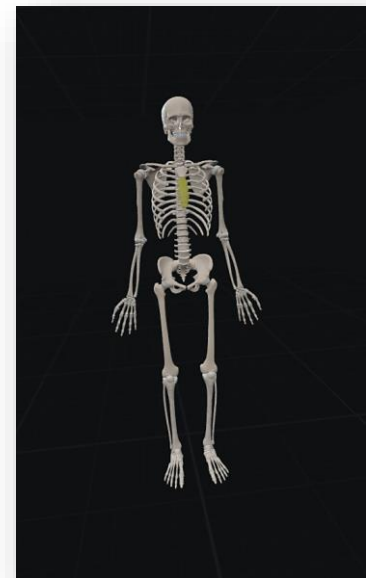


Figure 12. Black Environment

## 8.7 Identification of Anatomy

1. To view the anatomical terminology of a structure during navigation, hover the pointer onto it, and an annotation will show up. The identification of anatomy functions in real-time and requires no button to be pressed.

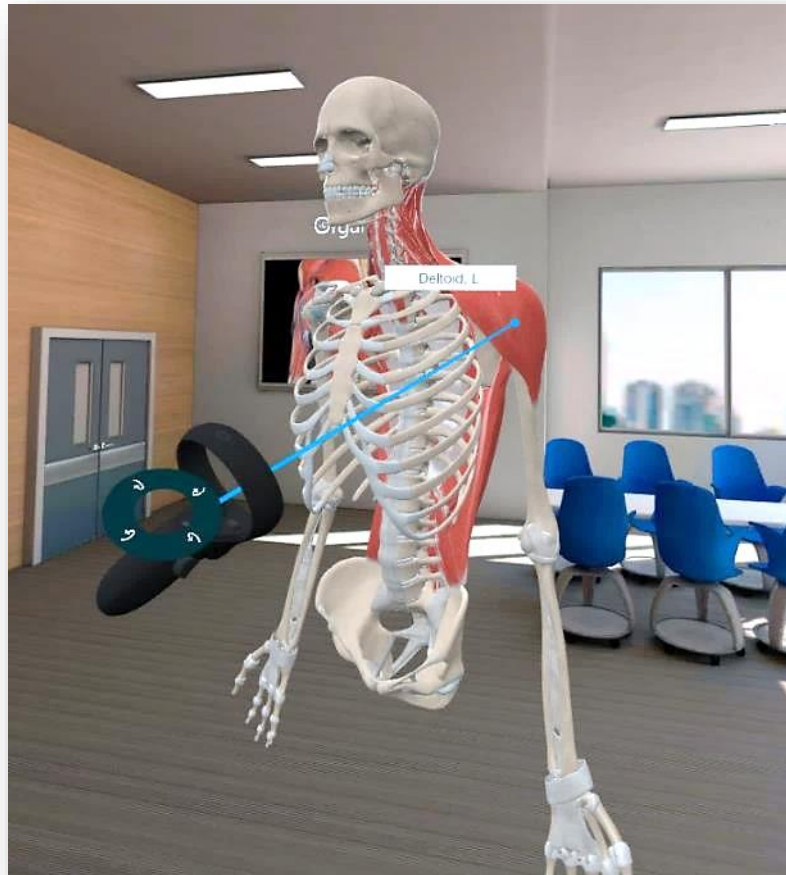


Figure 16. Anatomical Terminology

## 8.8 Single-Select Mode

1. You can select one structure at a time with each controller. By pressing the trigger button on the controller the Options Panel will appear to interact with the model.
2. To choose another structure just click on it.

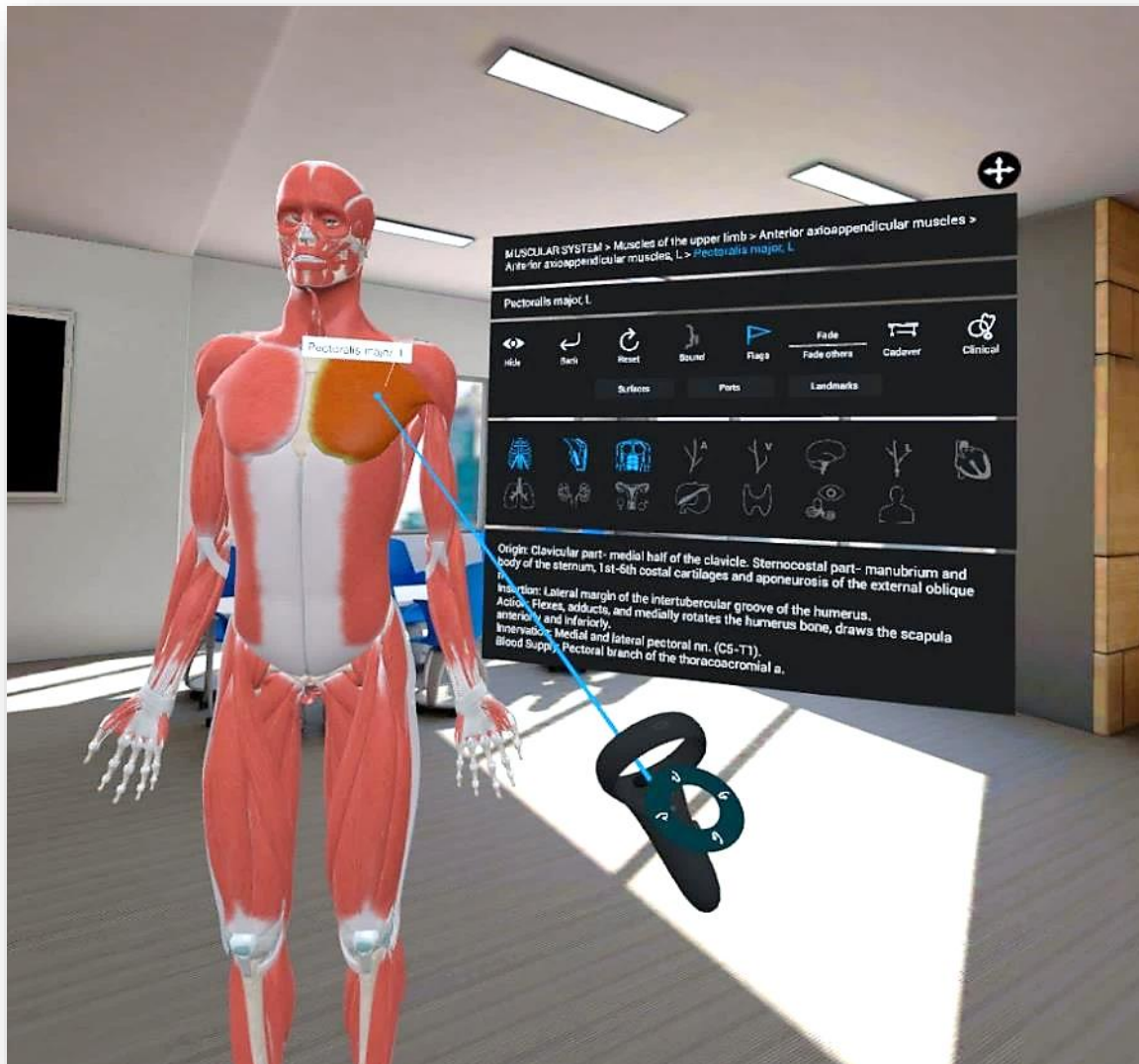


Figure 17. Single Select Mode



## 8.9 Move Anatomical Structures

1. You can move anatomical structures in 3D space. Point to a structure, select it by pressing and holding the trigger button on the controller, and move the structure to the desired location.

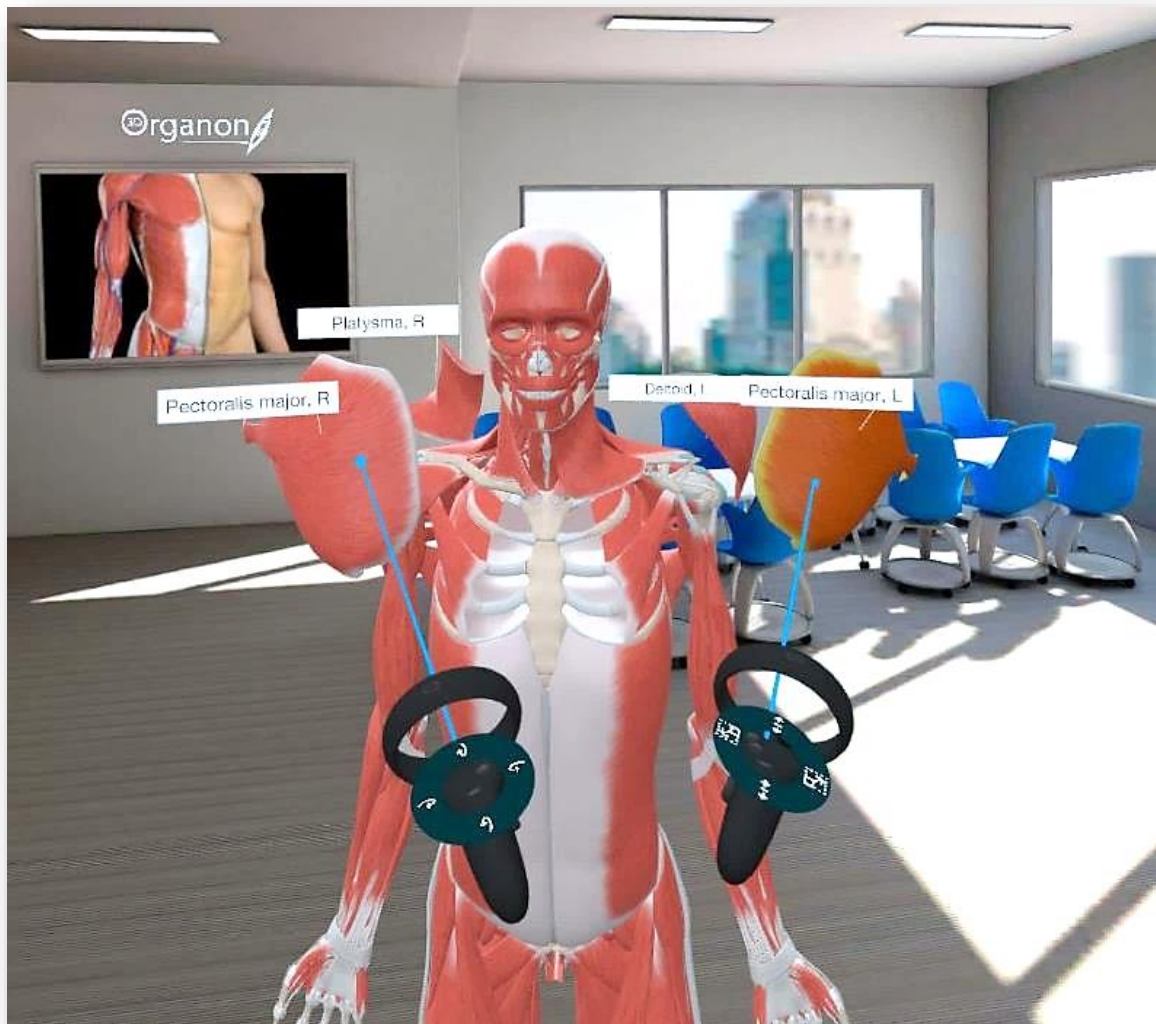


Figure 18. Move Anatomical Structures

## 9 Working with the Anatomy Model

### 9.1 Hide Anatomical Structures

1. You can subtract structure(s) from the scene by pressing the '**Hide**' icon in the Options Panel.
2. Press '**Hide**' again to restore a previously hidden anatomy.

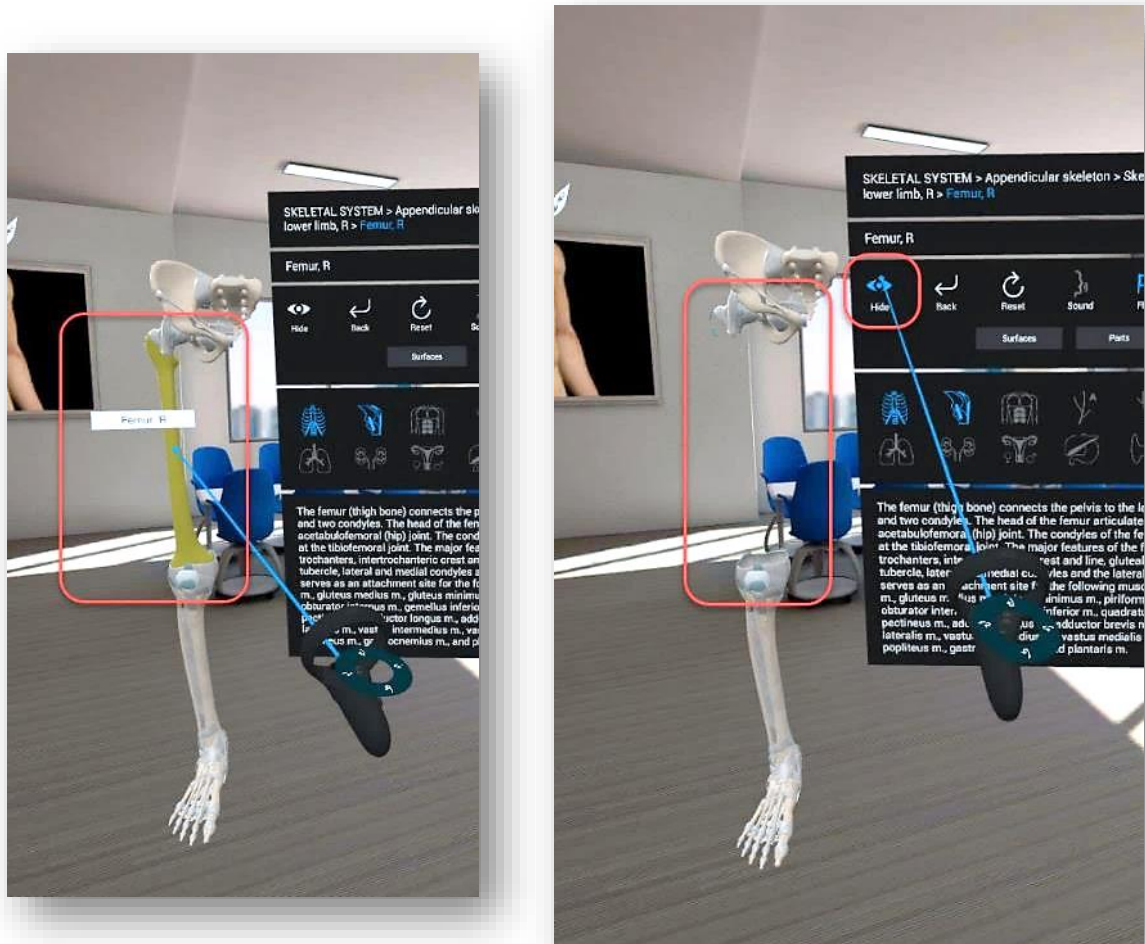


Figure 19. Hide Structure



## 9.2 Undo Action

1. The **'Back'** button in the Options Panel reverses any previously hidden anatomy, one structure at a time.
2. The system remembers all previously removed anatomical structures in the current session.

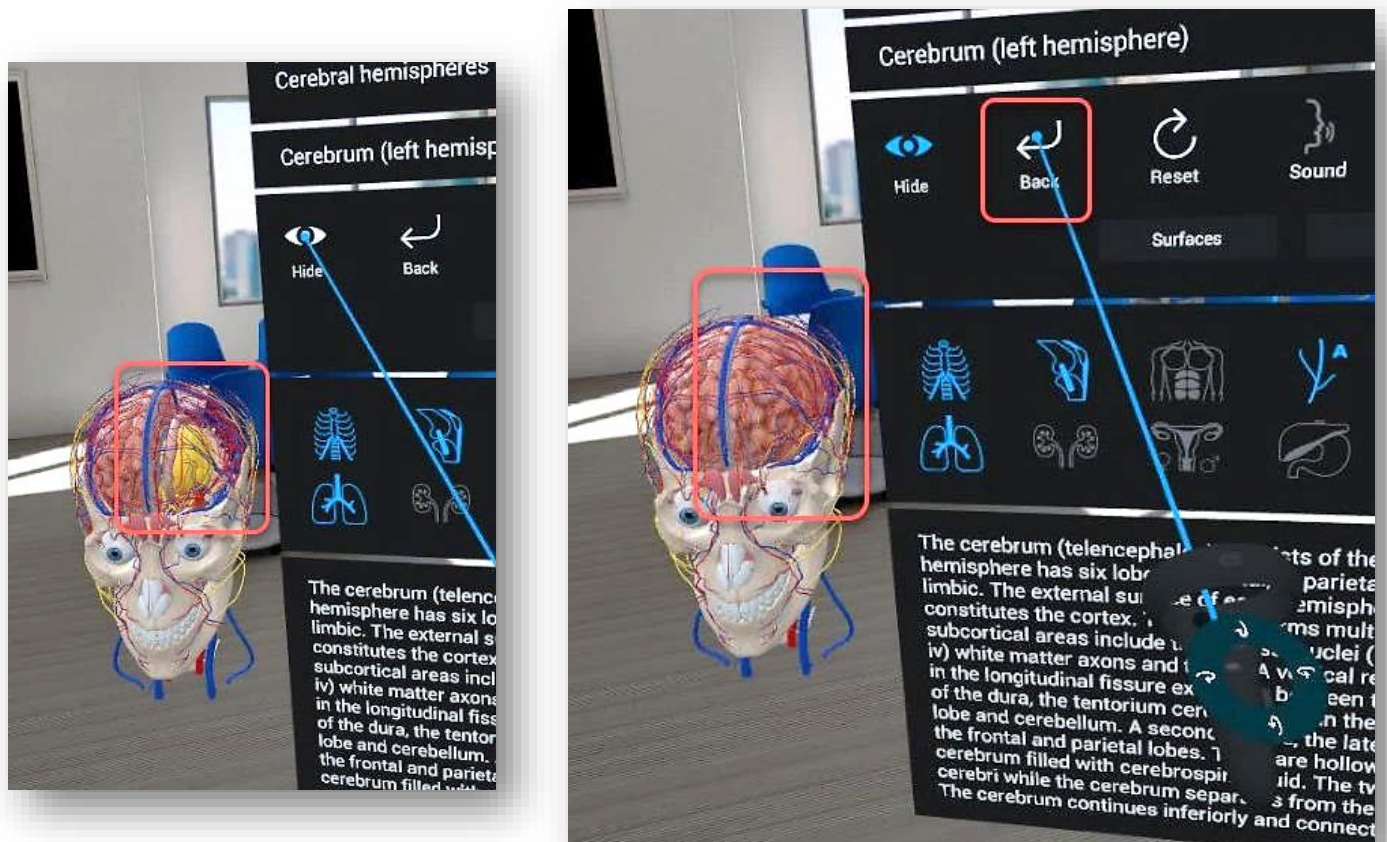


Figure 20. Undo Action

## 9.3 Reset Model

1. By clicking on the **'Reset'** icon in the Options Panel, you can reset the model in the main scene view. Any moved and hidden structures will reset to the original layout.

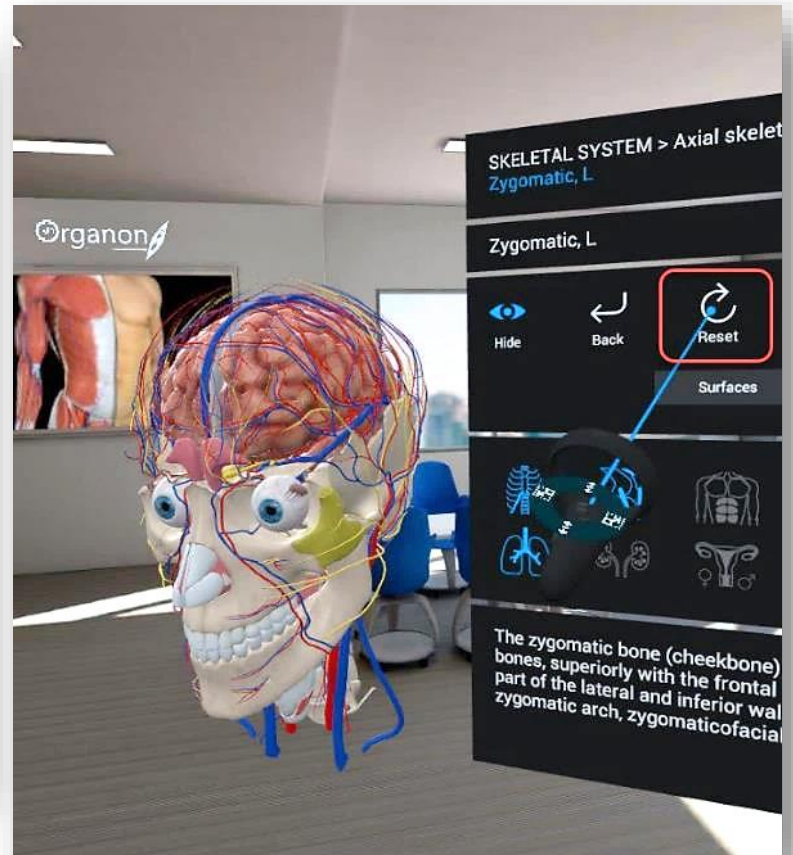
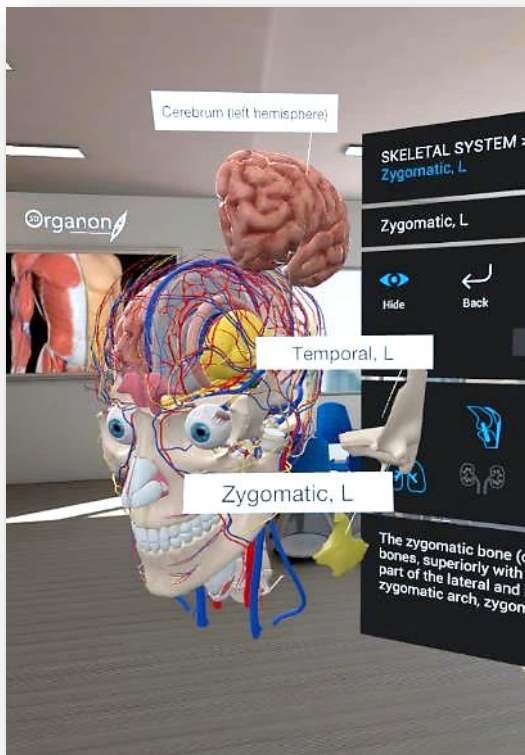


Figure 21. Reset Model

## 9.4 Audio Narration

1. Sound is not currently available for Standalone devices.

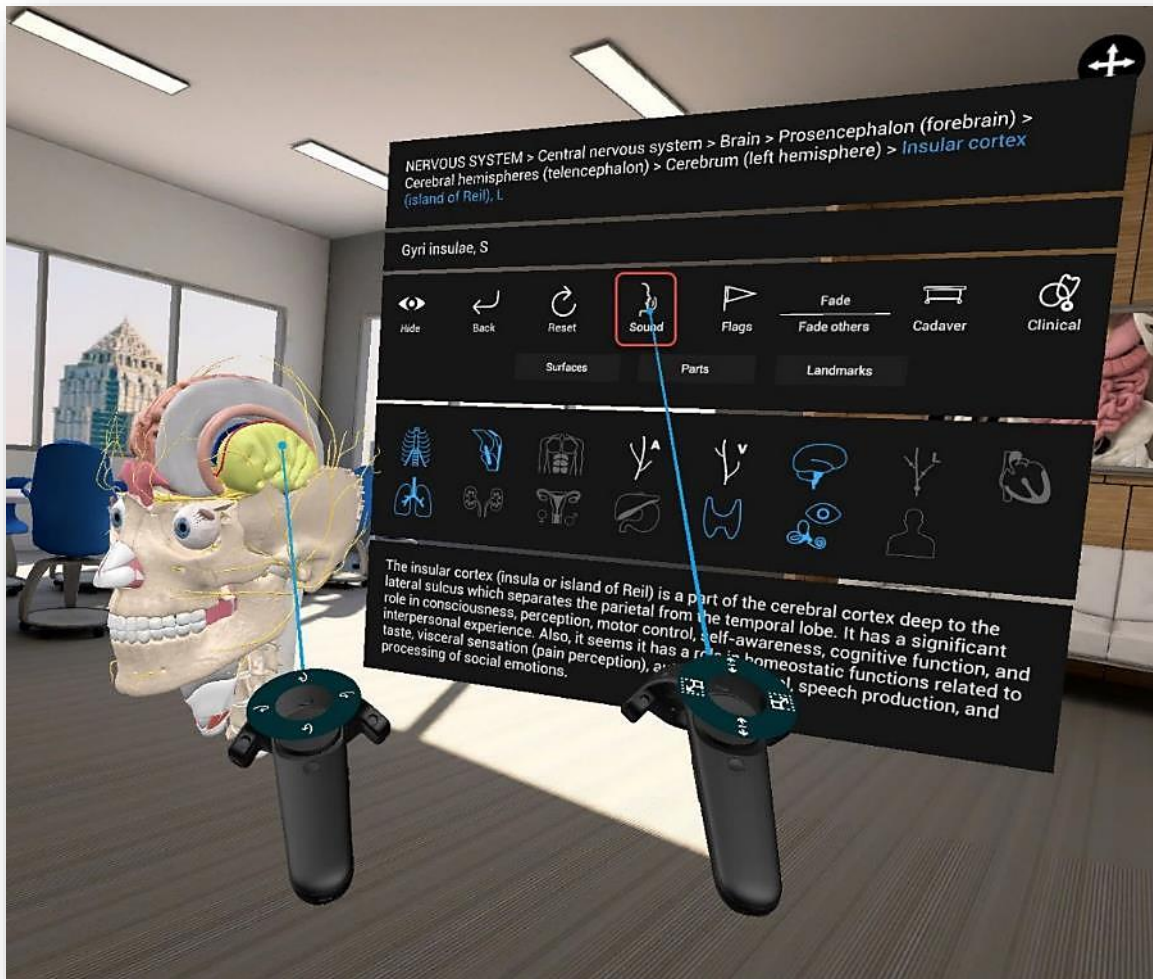


Figure 22. Audio Narration



## 9.5 Flags

1. By clicking on the 'Flag' icon in the Options Panel, you can view the anatomical terminology of a structure. Also, by hovering with the laser pointer over the structure the same annotation will show up.

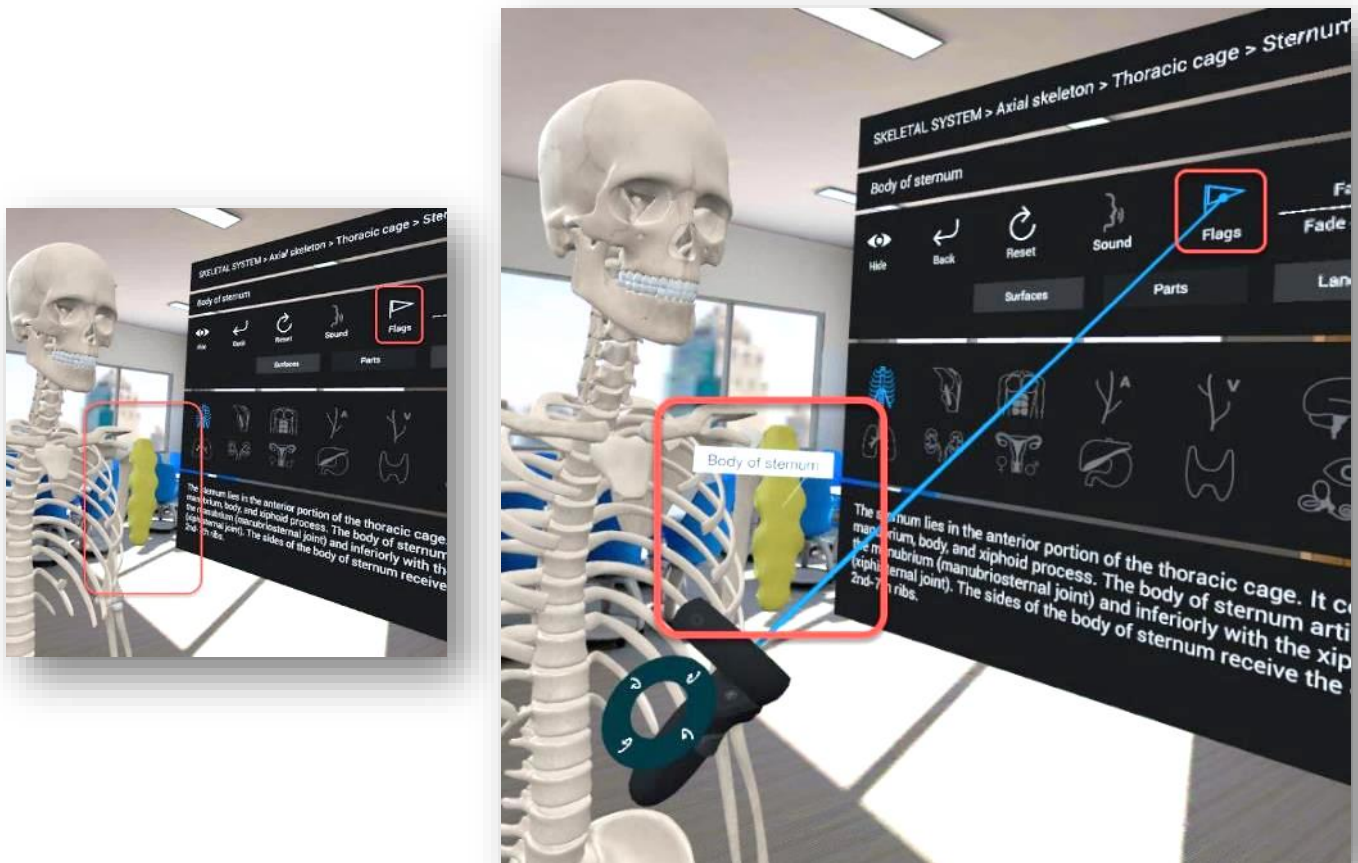


Figure 23. Flags

## 9.6 X-ray (Fade) Mode

1. Once you have selected an anatomical structure(s), you can make it semi-transparent by choosing the 'Fade' icon in the Options Panel.

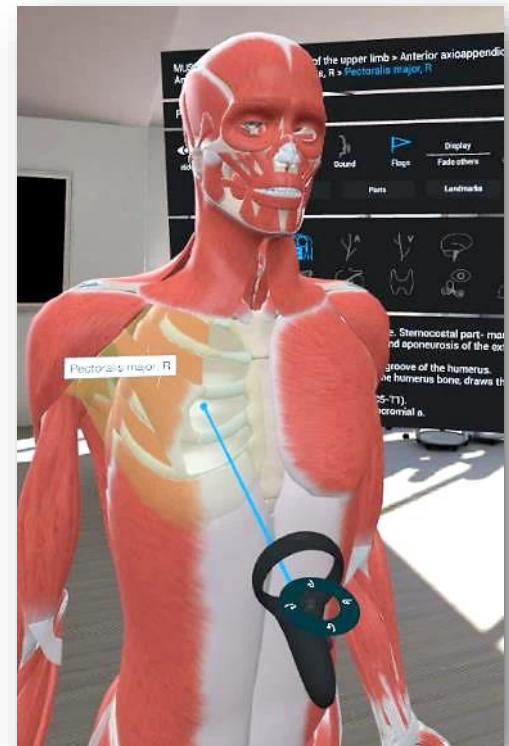
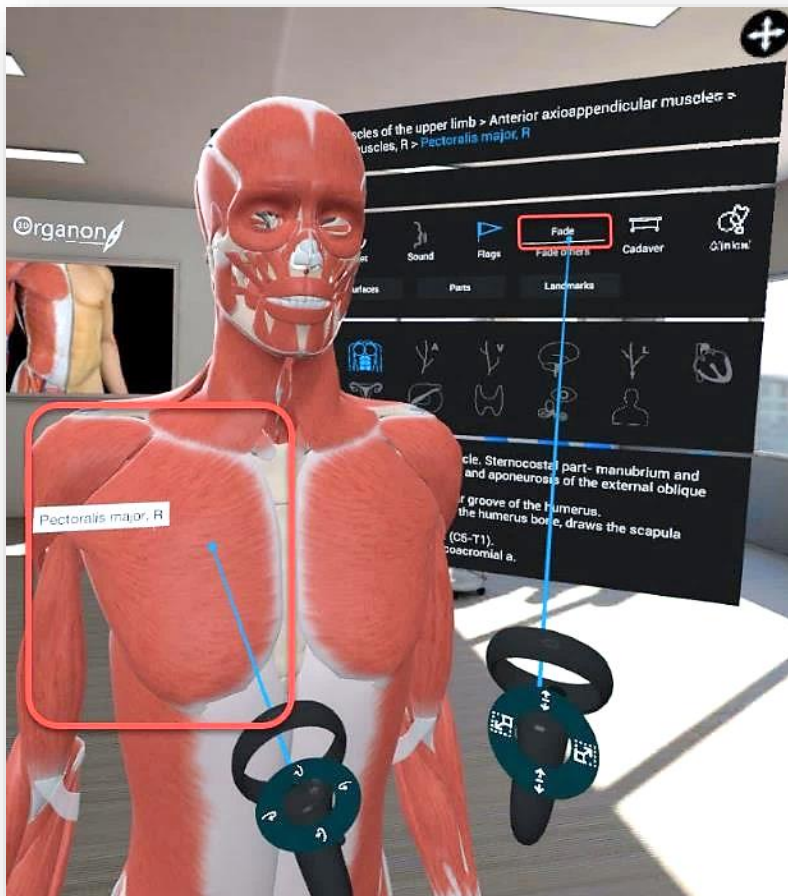


Figure 24a. Fade Mode

- Demonstrate the whole body or specific structures in an X-ray style by choosing the **'Fade others'** icon in the Options Panel. The overall appearance of the 3D model incorporates a semi-transparent visualization that resembles popular medical imaging modalities. Use this mode when you want to emphasize the location, borders and relationships with other structures.

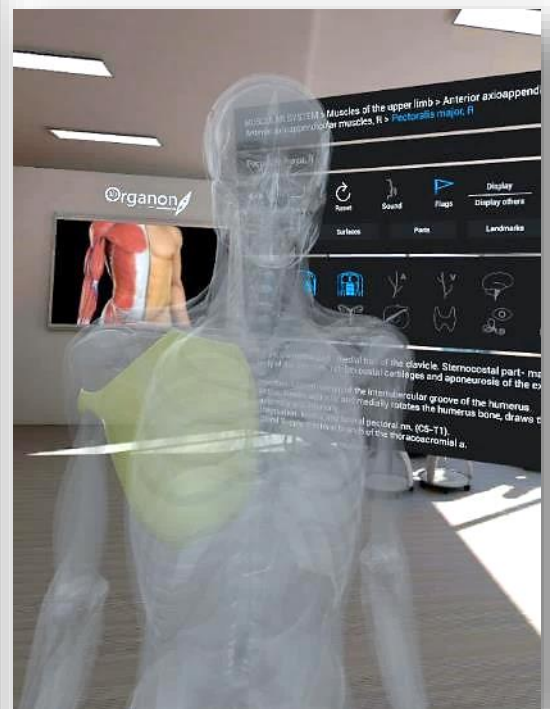
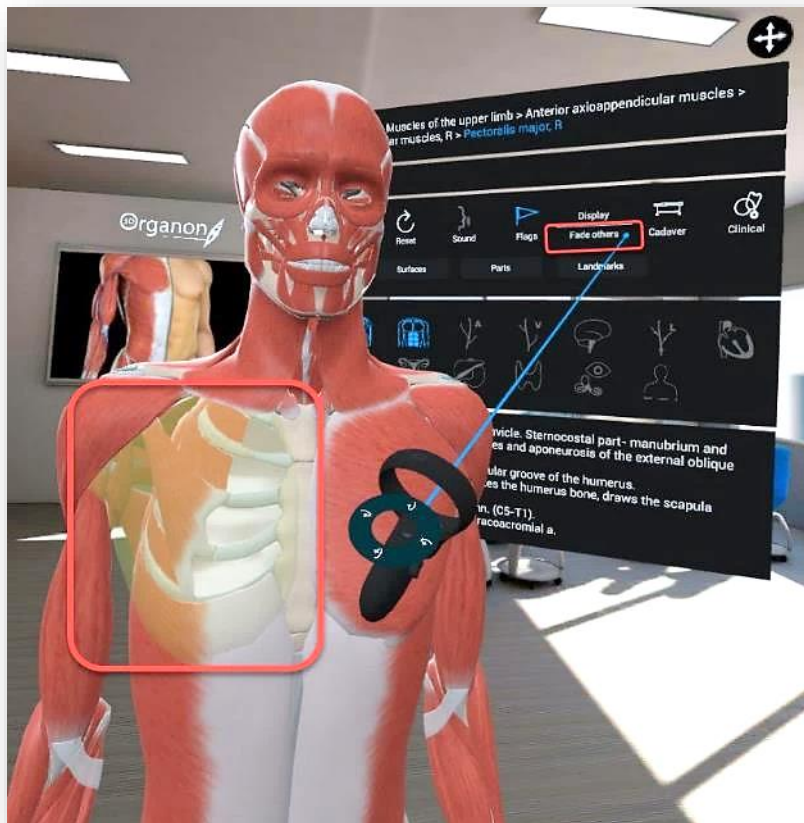


Figure 13b. Fade others Mode



## 9.7 Cadaveric Images

1. By pressing the '**Cadaver**' icon in the Options Panel, a list of available cadaveric images related to the selected body system and body region will appear.

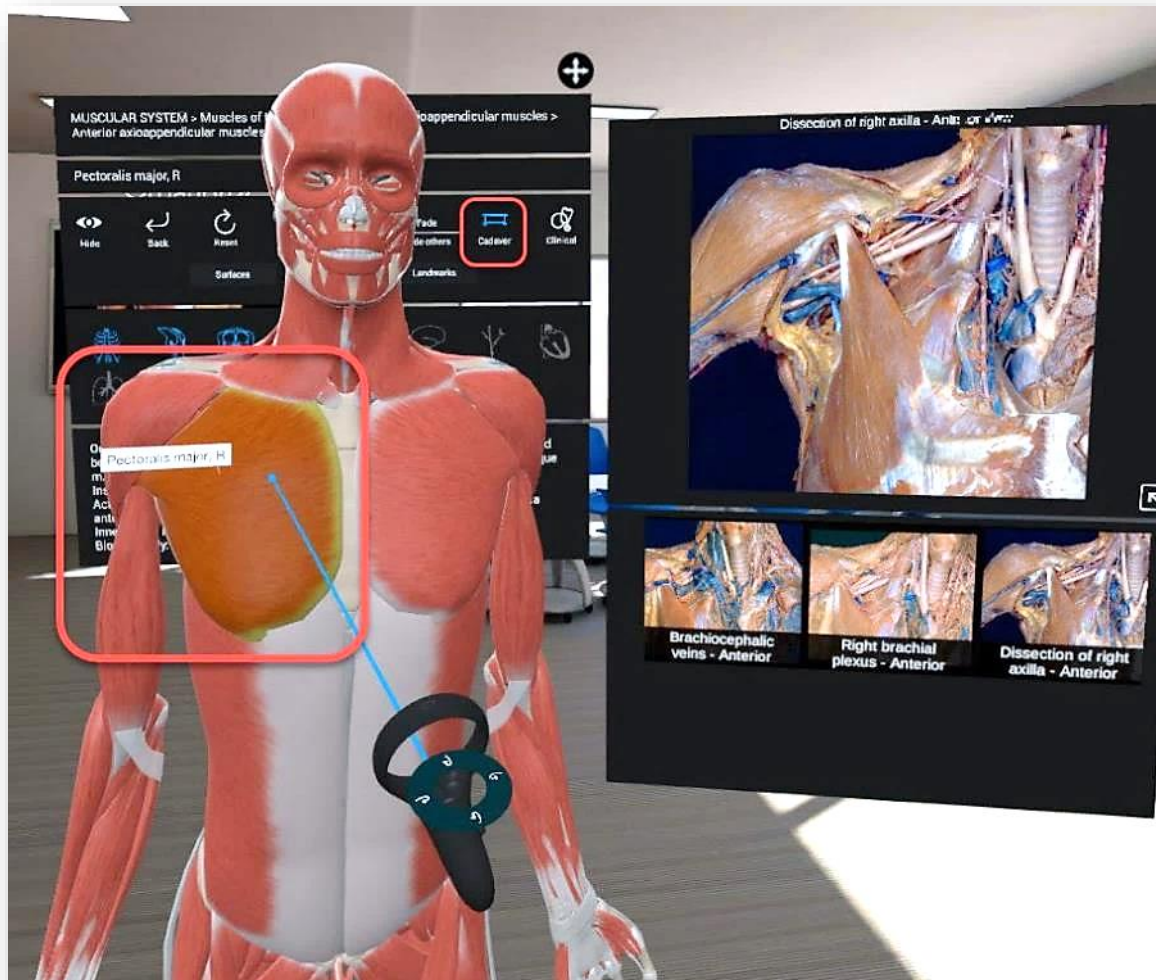


Figure 25. Cadaveric Images



2. By pressing the arrow icon on the bottom right of the cadaveric image a new window appears containing this cadaveric image. This enables you to relocate the image at the desired position.

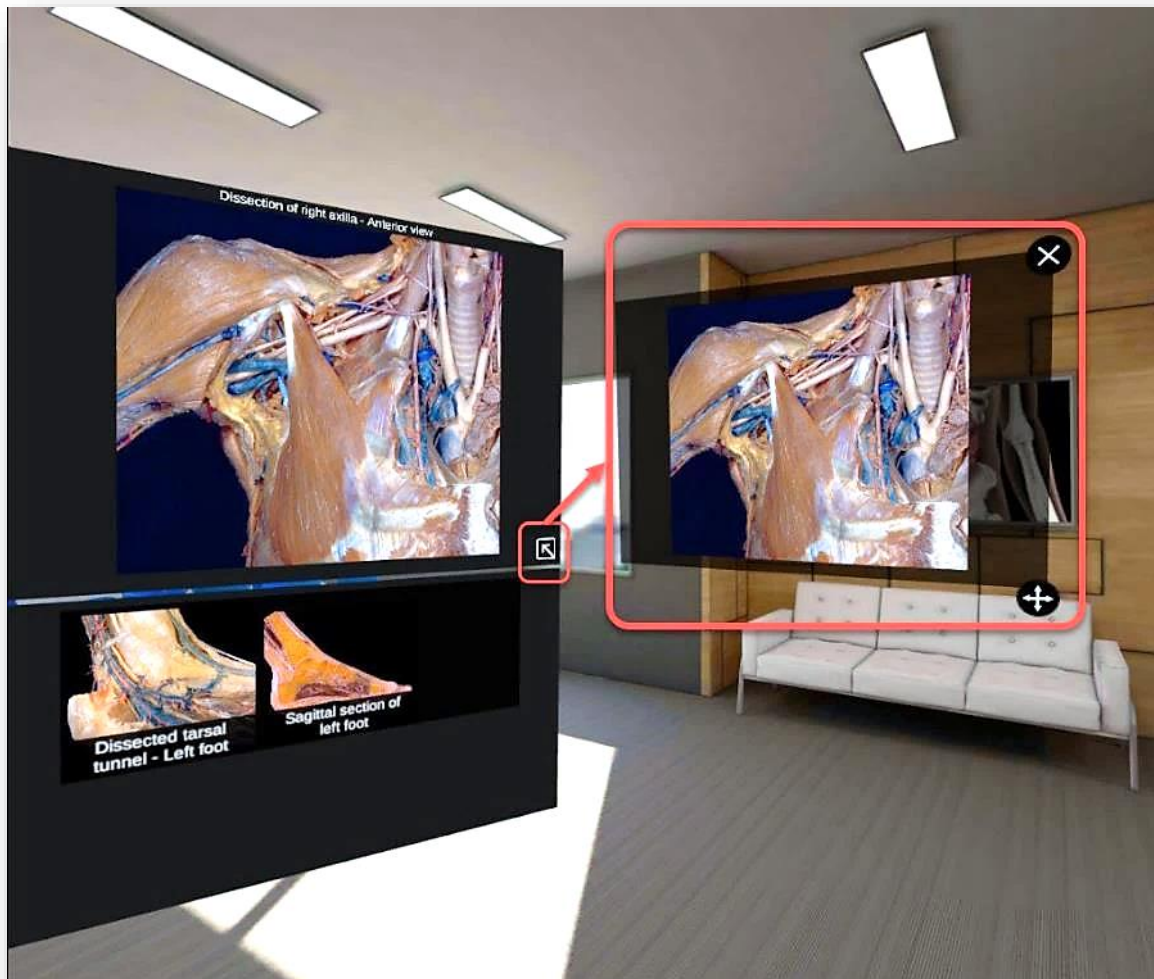


Figure 26. Cadaveric Images

## 9.8 Clinical Correlations

1. By pressing the '**Clinical**' icon in the Options Panel, you can read the clinical manifestations organized per body system. Correlate normal anatomy with selected common clinical manifestations.



Figure 27. Clinical Correlations

## 9.9 Bone Mapping | Landmarks

The bone mapping module in 3D Organon offers a detailed color mapping for each bone of the body organized into Surfaces, Parts, and Landmarks. This module details over 3,500 bone features and landmarks presented with appealing colors and highlights.

To examine the bone mapping module hover over the chosen bone and press the trigger button for the Options Panel to appear. Choose between Surfaces, Parts and Landmarks. The Surfaces option integrates the anatomical surfaces and borders in one option. To exit the chosen module just press with the trigger button the selected module (Surfaces, Parts and Landmarks).

1. By pressing the **'Surfaces'** icon with the trigger button in the Options Panel, different colors will display different surfaces and borders for a selected bone. The Surfaces option integrates bone surfaces and borders.

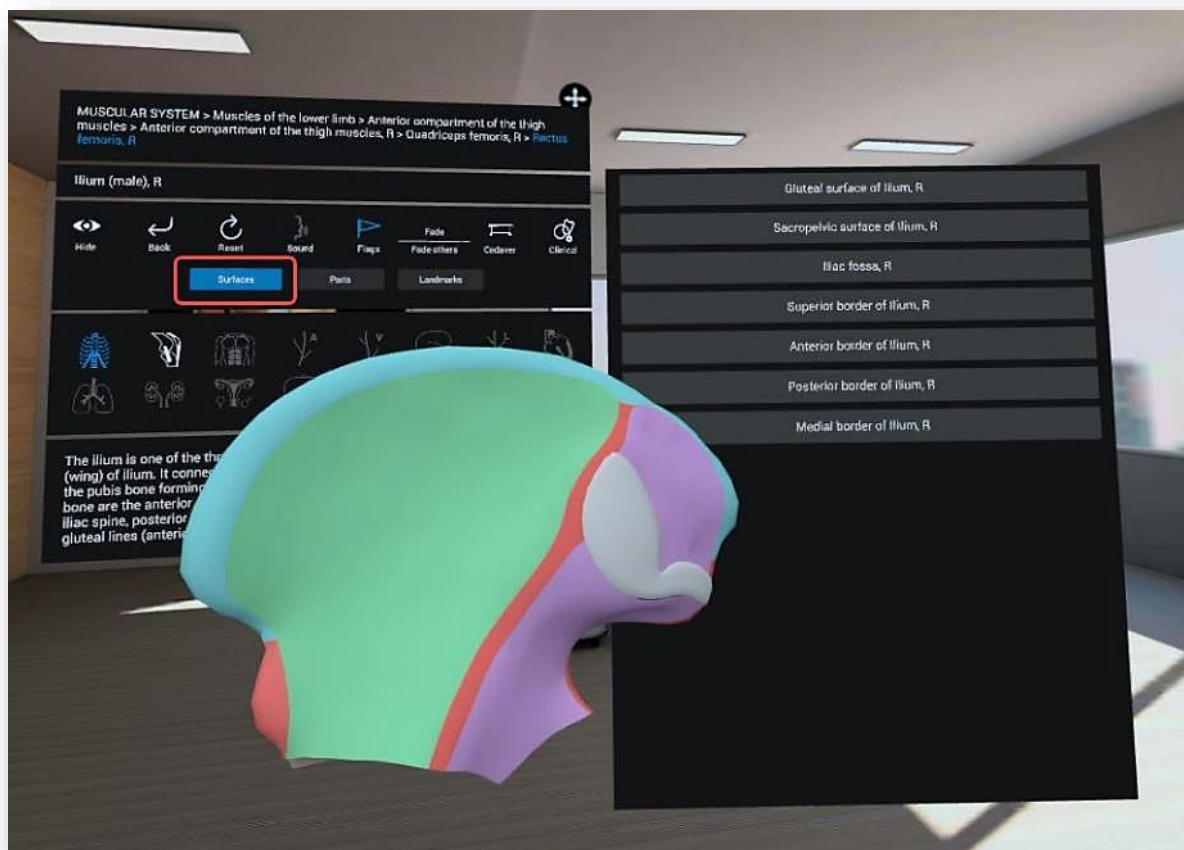


Figure 28. Bone Surfaces and Borders

- By pressing the **'Parts'** icon with the trigger button in the Options Panel, different colors will display the different parts of the selected structure.

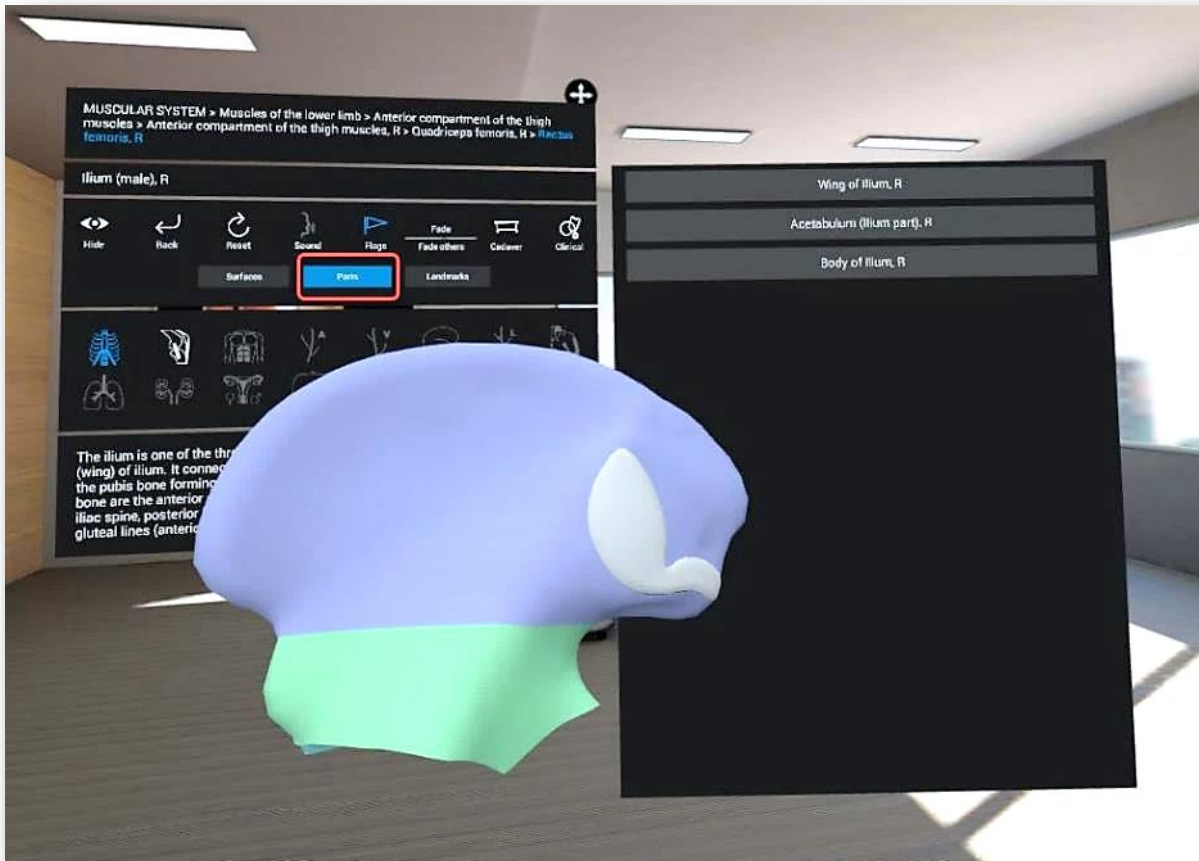


Figure 29. Bone Parts

- By pressing the '**Landmarks**' icon with the trigger button in the Options Panel, different colors will highlight the anatomical features of the selected bone. You can select them either by clicking directly on a colored area or the list.



Figure 30. Bone Landmarks



## 10 Anatomy Modes

### 10.1 Regional Anatomy

The Regional Anatomy mode contains preconfigured scenes of popular anatomy views. This mode is emphasizing the relationships of various systemic structures (muscles, nerves, arteries, veins etc.) within that area. Each scene contains preselected anatomical structures.

1. This mode is preselected. Body systems appear at the top of the main menu panel. The skeletal is preselected.
2. Select a body system from the top of the main menu panel.
3. Click on the arrow on the right side of the scenes to browse the entire selection.



Figure 31. Regional Anatomy

1. To include a tile in your custom Favorites list, click on the **'Star'** on the top left side of each icon.

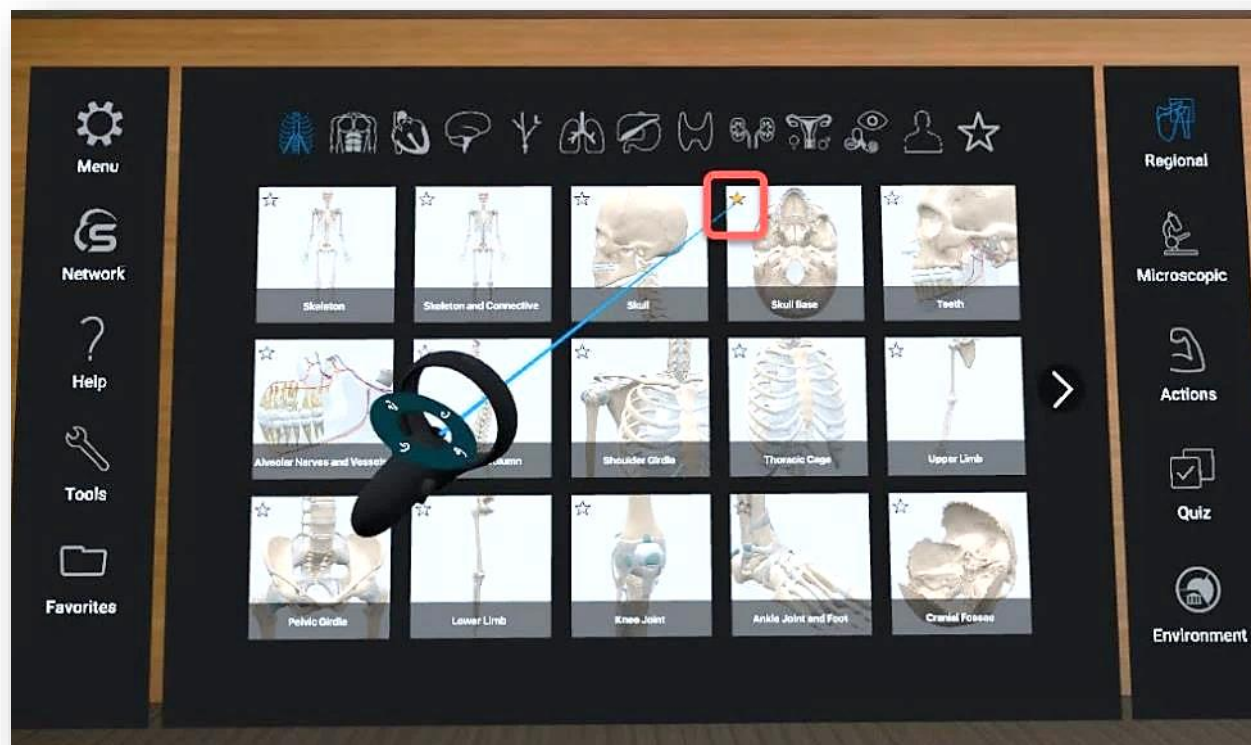


Figure 32. Regional Anatomy (Favorites)



- To bring up your selected Favorites list just click on the 'Star' icon on the right of the Body Systems' list.

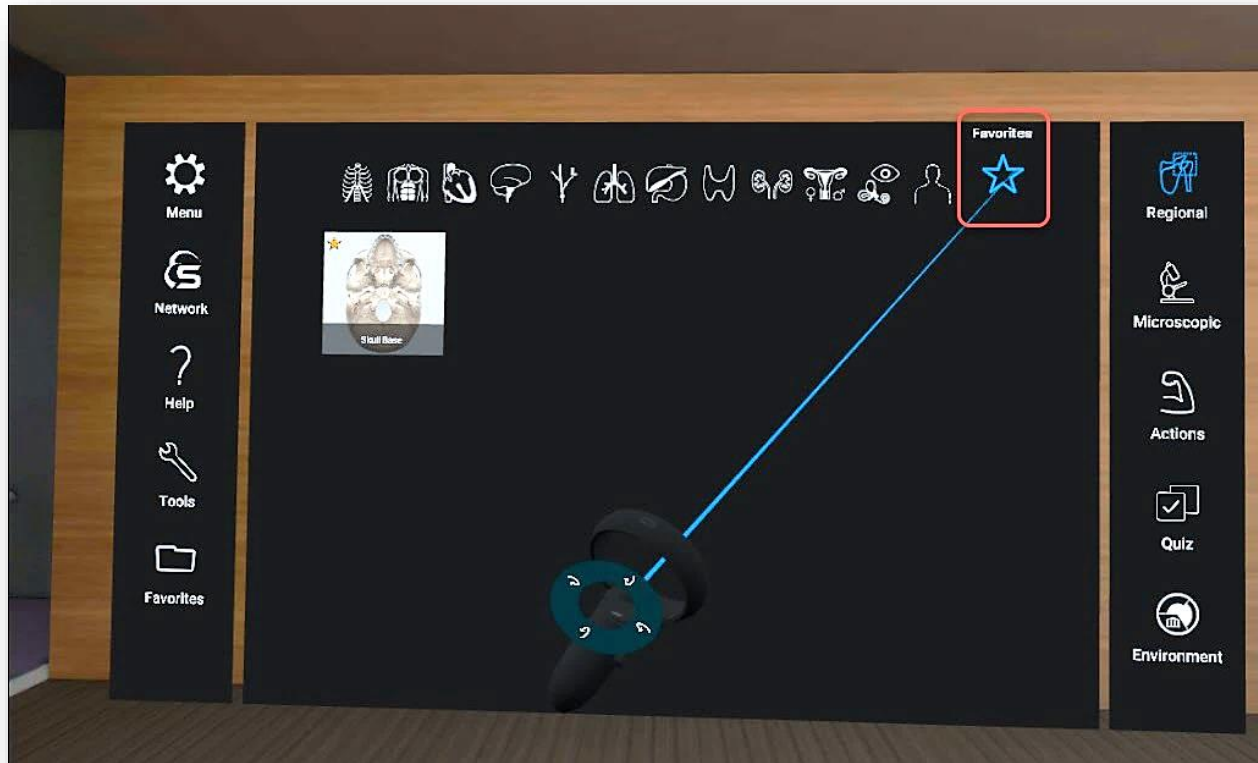


Figure 33. Regional Anatomy (Favorites List)

## 10.2 Microscopic Anatomy

1. To explore microscopic anatomy with detailed full-thickness virtual histology models, click on the '**Microscopic**' icon with the trigger button on the right side panel.
2. Click on the desired model to select it from the main menu panel.

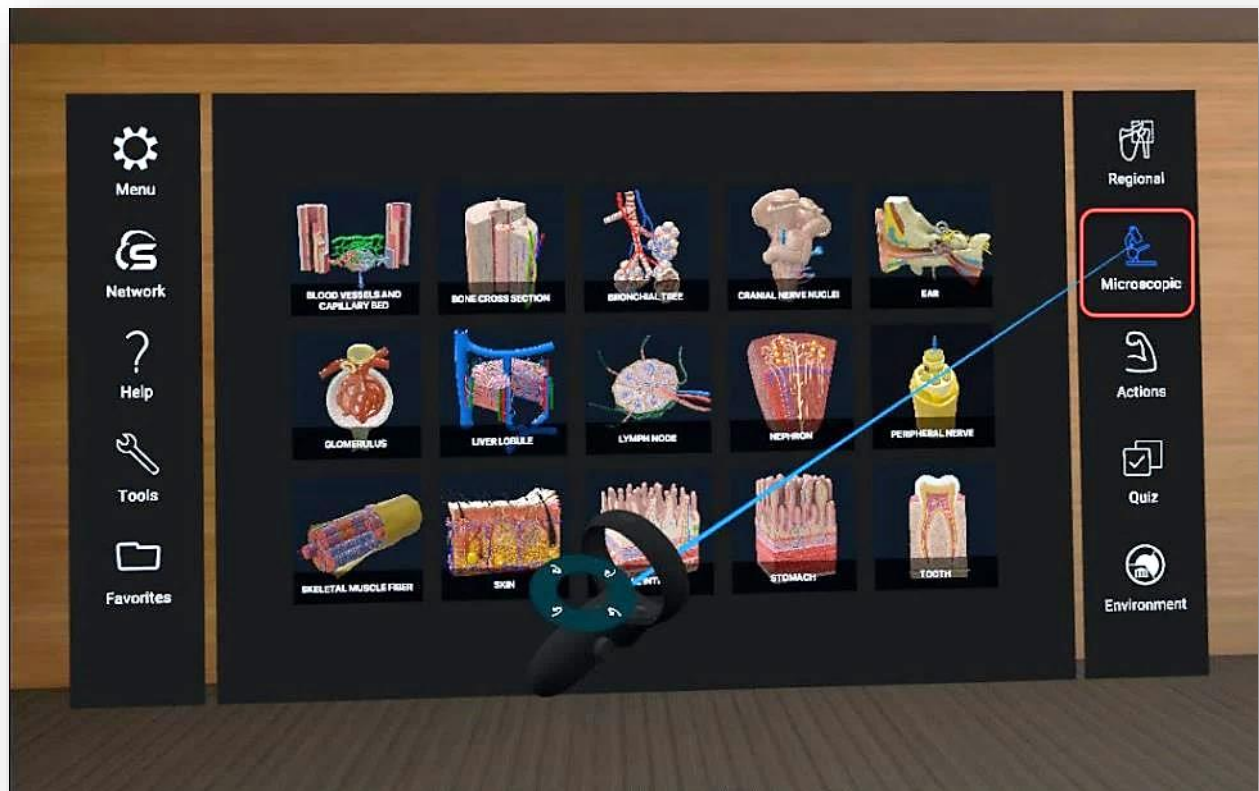


Figure 34. Microscopic Anatomy

## 11 Functions

### 11.1 Tools

1. Click on the '**Tools**' icon from the left side panel. The menu will appear on one of the controllers. With the other controller you can choose between Draw, Growth, Spur, Pain and Slice by pressing on the trigger button.

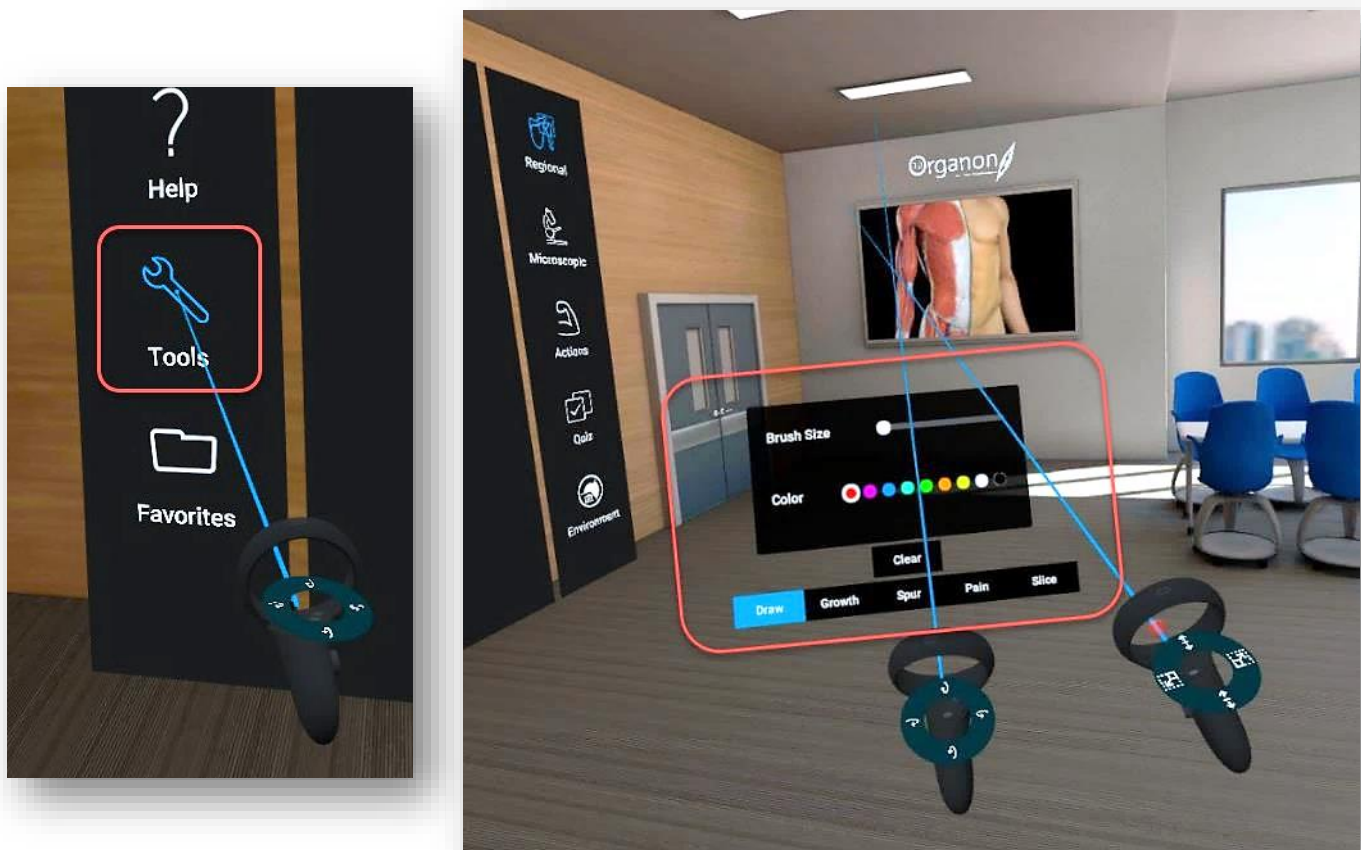


Figure 35. Tools

### 11.1.1 3D Painting

1. Click on the **'Draw'** icon (with the Trigger button) from the **'Tools'** selection, if you want to draw on top of the present scene view. Start drawing by clicking and pressing on the Grip button of your controller.
2. Click on the **'Clear'** icon to erase the entire 3D sketch. It is possible to adjust the thickness and color of the brush.

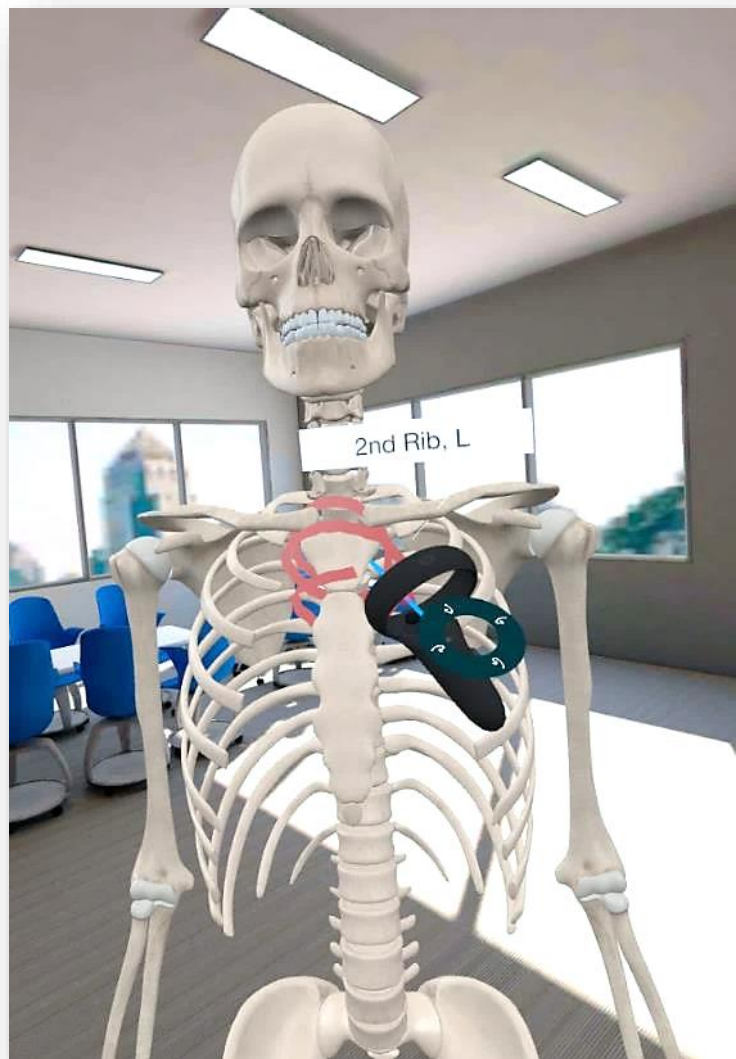
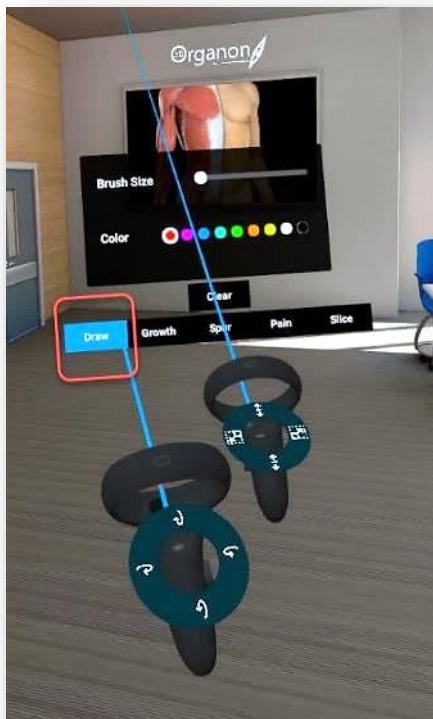


Figure 36. Drawing Tool



### 11.1.2 Tumor Growth

1. Click on the '**Growth**' icon (with the Trigger button) from the '**Tools**' selection. Start placing Tumor effects by clicking and pressing on the Grip button of your controller.
2. Click on the '**Clear**' icon to erase all of the Tumor effects. It is possible to adjust the size and color of the Tumor Growth.

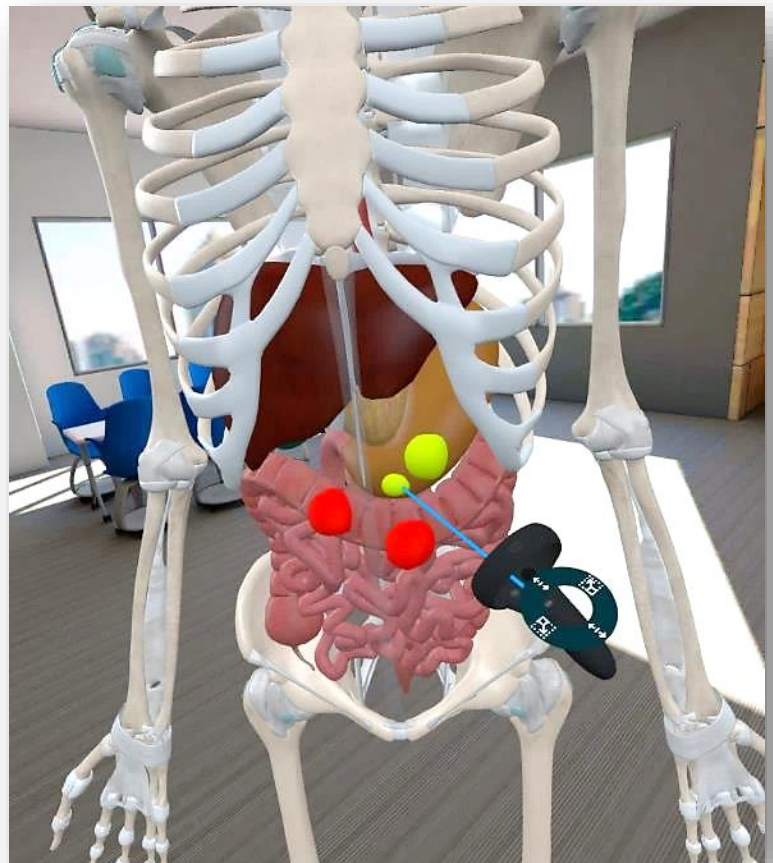


Figure 37. Tumor Growth Tool

### 11.1.3 Bone Spurs (Osteophytes)

1. Click on the '**Spur**' icon (with the Trigger button) from the '**Tools**' selection. Start placing Bone Spurs by clicking and pressing on the Grip button of your controller.
2. Click on the '**Clear**' icon to erase all of the Bone Spurs. It is possible to adjust the size of Bone Spurs.

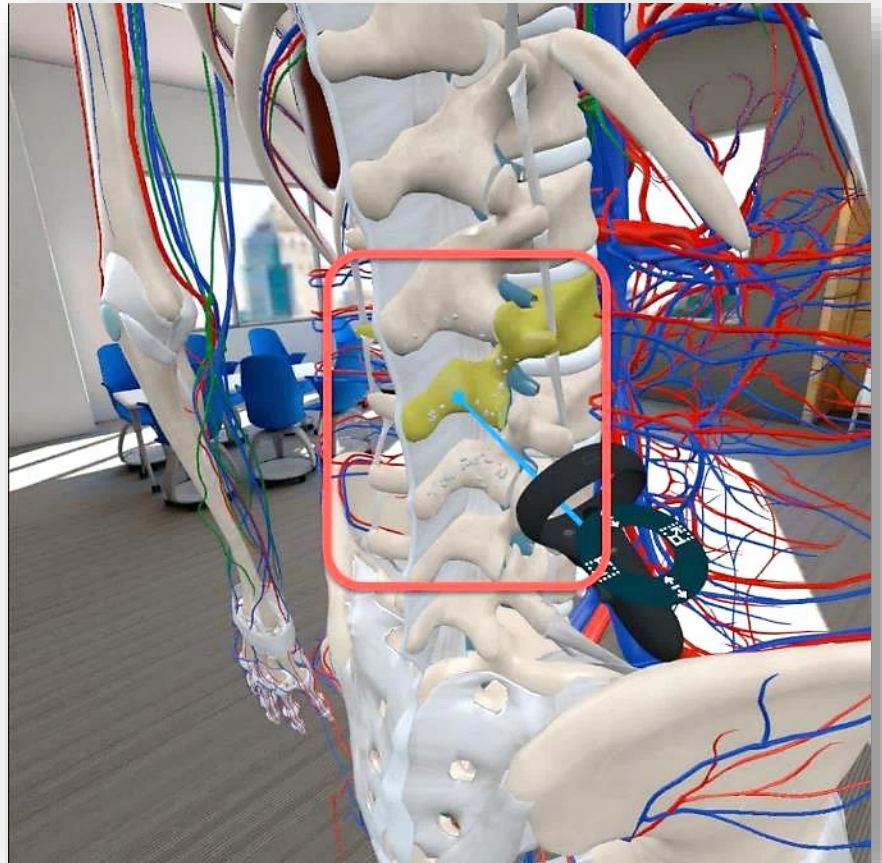
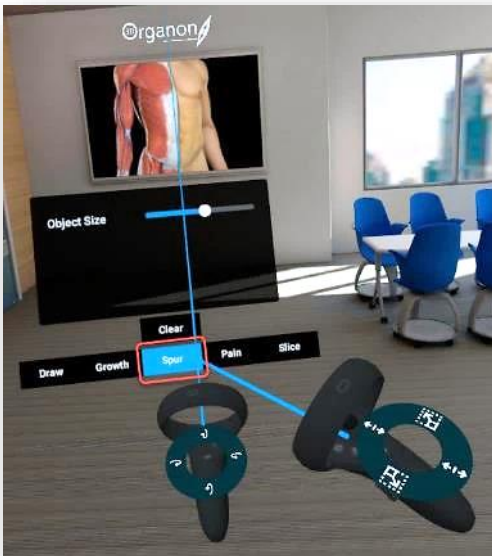


Figure 38. Spur Tool



### 11.1.4 Pain Effect

1. Click on the **'Pain'** icon (with the Trigger button) from the **'Tools'** selection.
2. Start placing Pain effects by clicking and pressing on the Grip button of your controller. Move it to any part of the body you desire with the Trigger button.
3. Click on the **'Clear'** icon to erase all Pain effect. It is possible to adjust the size and color of Pain.

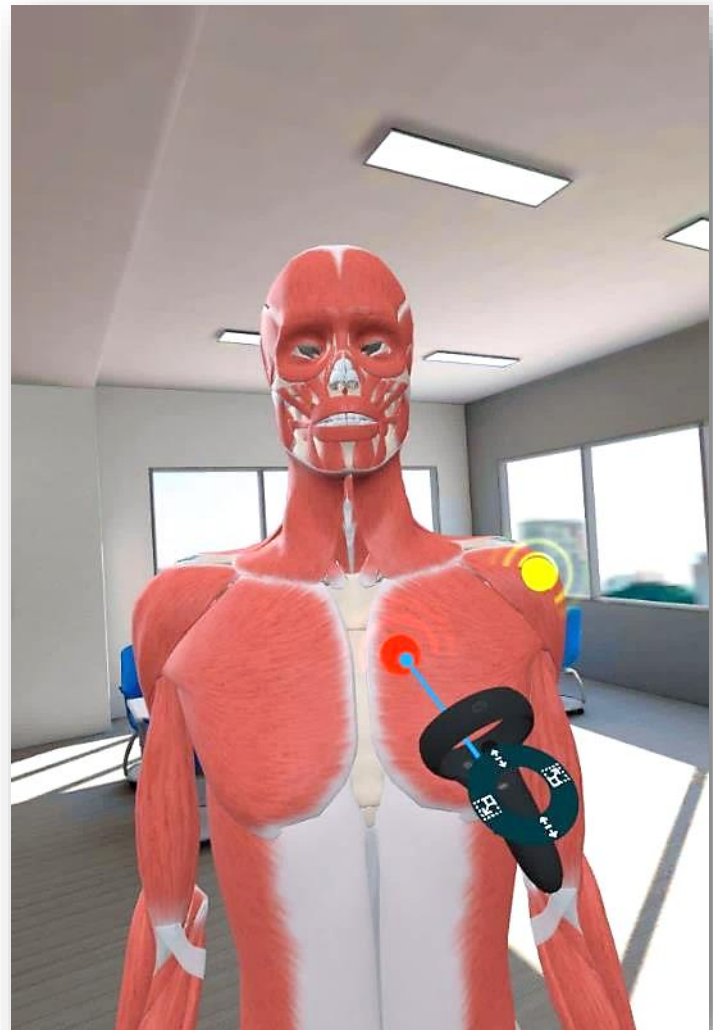
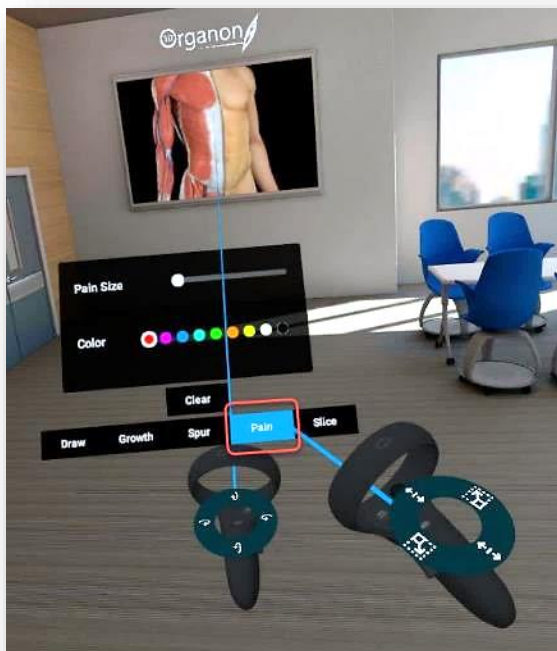


Figure 39. Pain Tool

### 11.1.5 Sectioning

1. Click on the **'Slice'** icon (with the Trigger button) from the **'Tools'** selection.
2. Click on the **'+' or '-'** icon to enlarge the blue square slicing plane.  
Place the slicing plane over the point you need to slice (Figure 42) and press the Grip button of your controller.
3. Click on either of the three options **Keep 'A'**, **Keep 'B'** or **Spread Out**.
4. The **Keep 'A'** option keeps the whole upper part (depending on the positioning of the model center and polygon vertices). From the bottom part, it keeps what remains untouched by the slicing plane.
5. The **Spread Out** option appears both sliced parts apart.
6. The **Keep 'B'** option keeps the lower part (depending on the positioning of the model center and polygon vertices). From the upper part, it keeps what remains untouched by the slicing plane.
7. Click on the **'Clear'** icon to clear the previous actions.

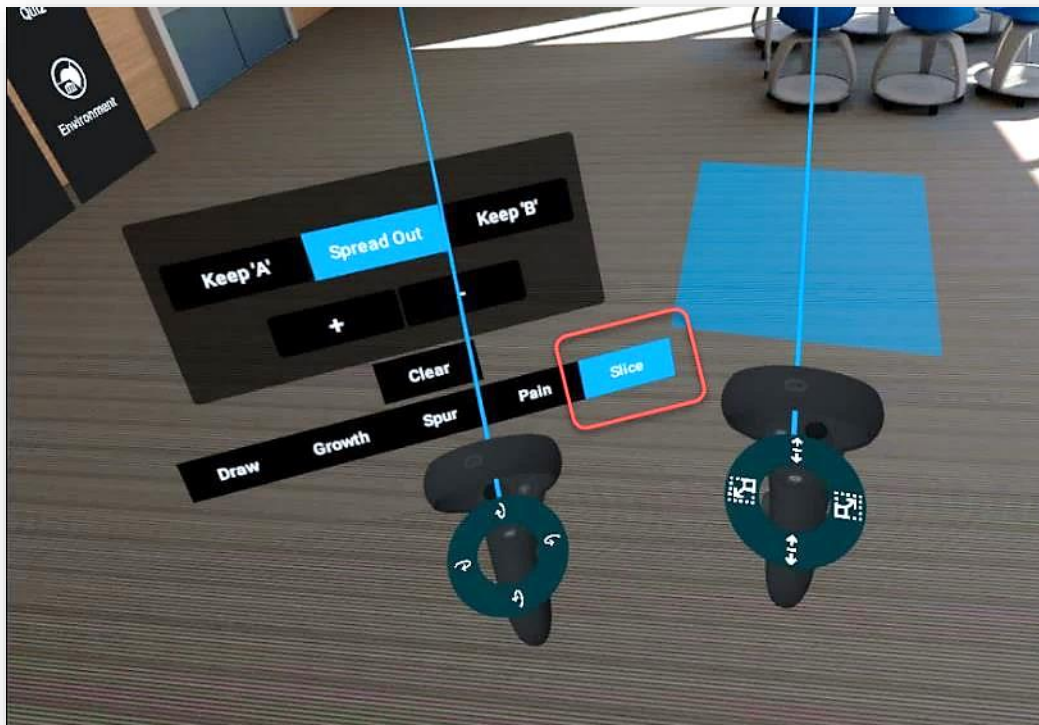


Figure 40. Slice Tool

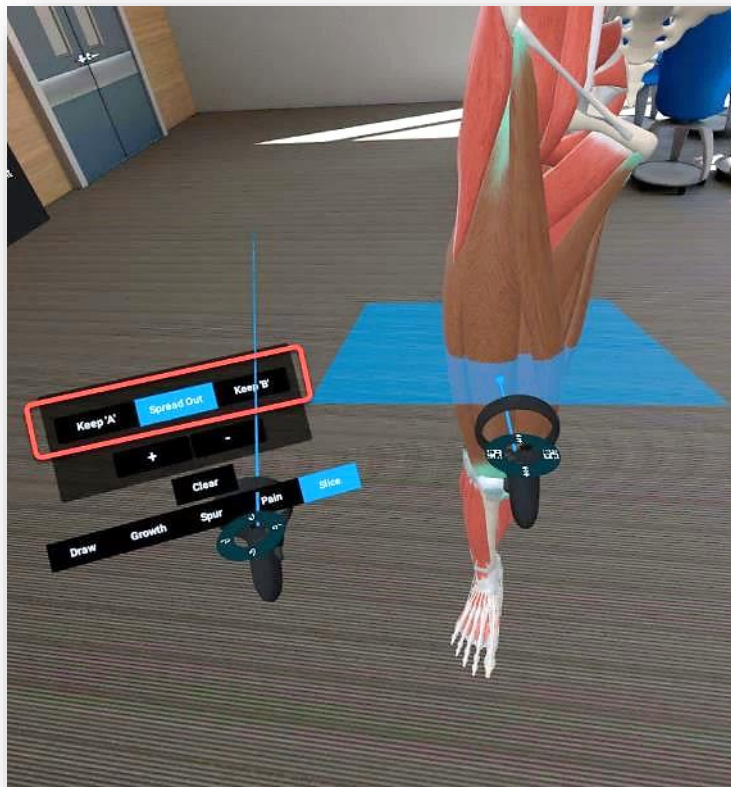
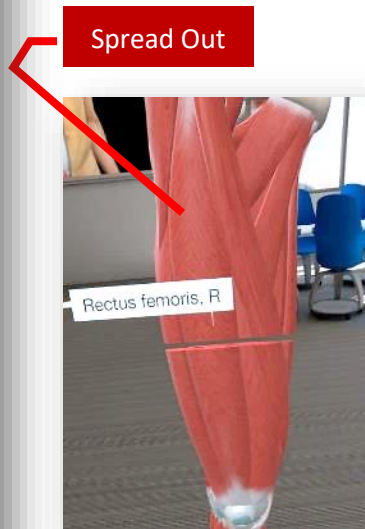
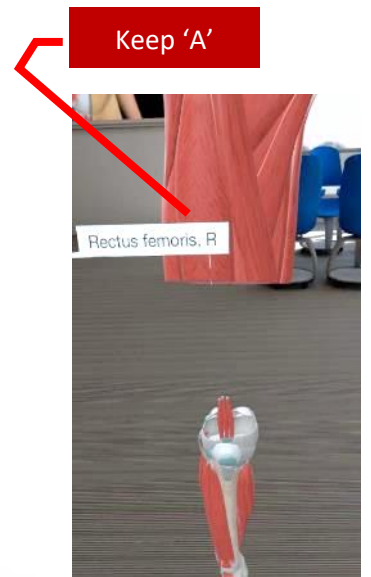


Figure 41. Slicing Options



## 11.2 Favorites

1. Click on the '**Favorites**' icon from the left side panel.
2. Save the anatomical structures in the scene and their positions to '**Favorites**'.
3. Ensure you put a descriptive title in the Enter Name field and click on the '**Save**' button. A thumbnail image will be automatically created.
4. The saved scenes are perfect for study reference.

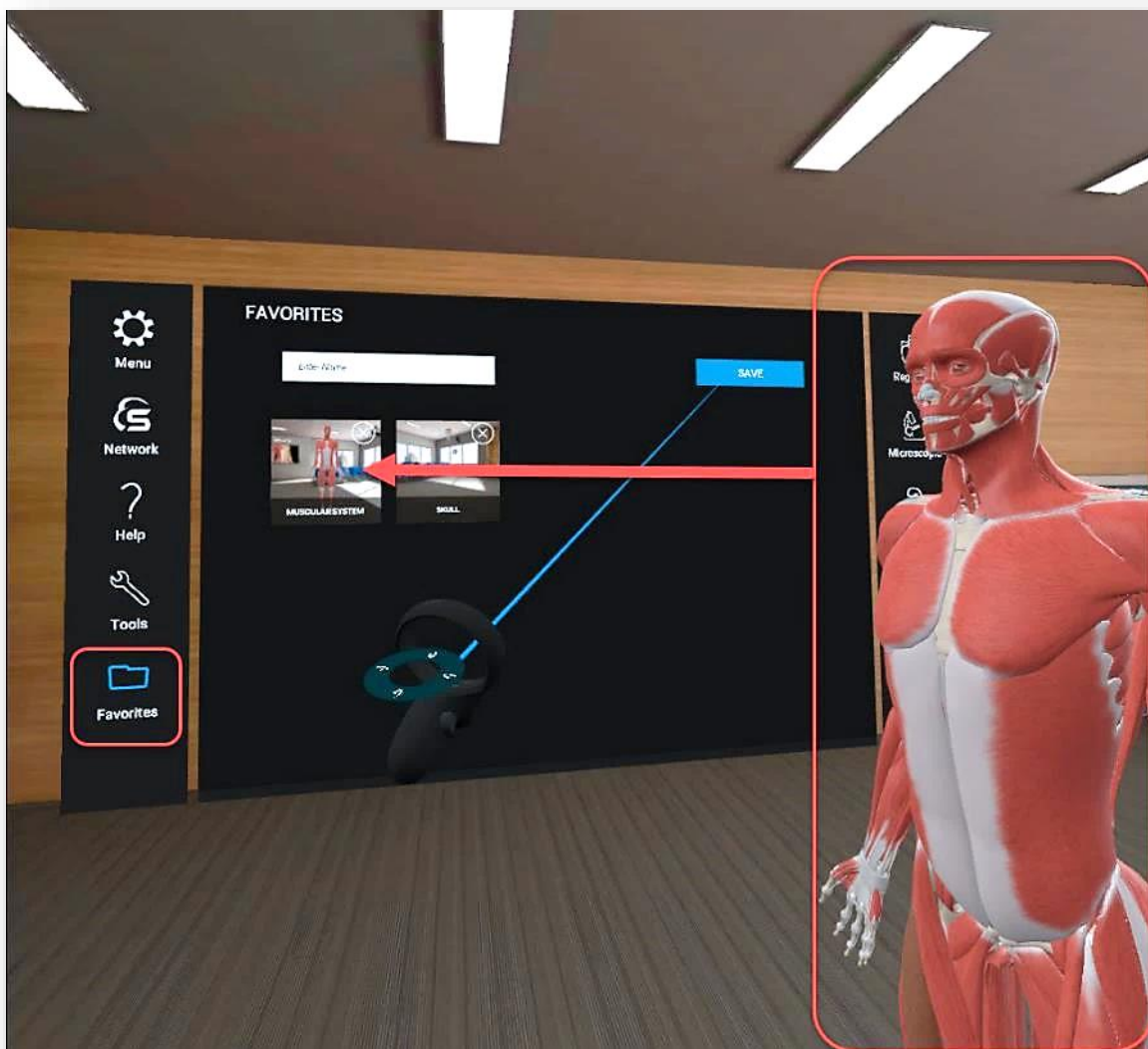


Figure 42. Favorites



## 11.3 Formative Assessment | Quizzes

With the 'Quiz' module, you can run an interactive formative assessment within 3D Organon.

1. Click on the 'Quiz' icon on the right side panel.
2. Select the body system(s), the total number of questions, time allocation for the whole quiz, and press the 'START QUIZ' button. At least one body system needs to be selected to unlock other options.

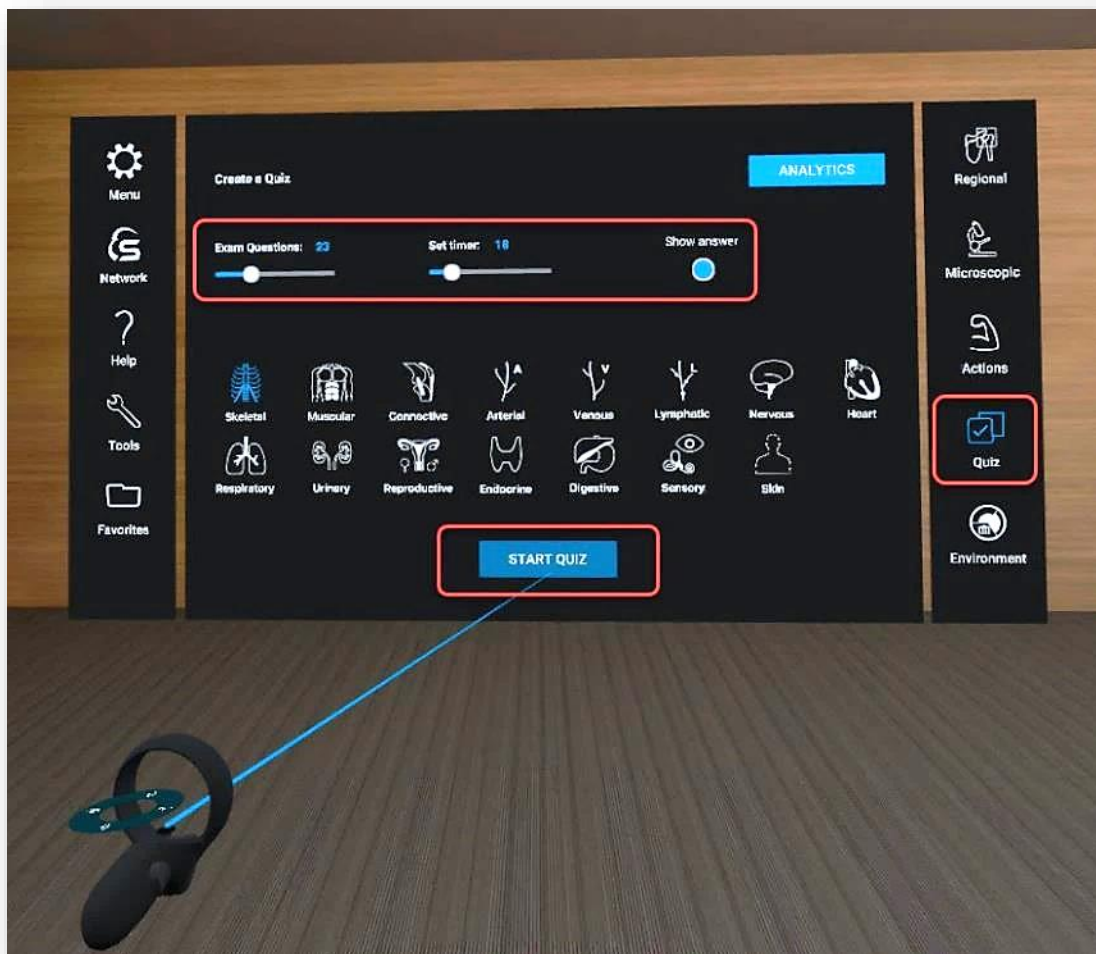


Figure 43. Quiz



3. Each question comprises a stem, lead-in, and 4-5 distractors (Figure 44).
4. The distractors can be switched off in the 'Quiz' creation menu to increase difficulty by clicking on the 'SHOW ANSWER OPTIONS' button (Figure 43).  
**Users can view distractor options only for reference.**
5. To select the potential correct answer, **you need to look into the model and choose a structure** and then press the 'APPLY ANSWER' button.  
 Where further exploration and virtual dissection is required you will need to expose deeper anatomical structures by moving the body parts.
6. When ready to exit the Quiz, just click on the 'SUBMIT' button.



Figure 44. Questions

### 11.3.1 Quiz Results

1. From the '**Quiz Results**' one can see the correct and incorrect answers in green and red markings respectively. Choose a question from the list to find out the correct answer and more details about it (Figure 46). A **Rationale** for the correct answer is provided to help out students understand the grounds of the correct answer (Figure 46).
2. By pressing '**Back**' the user goes to the '**Create a Quiz**' menu (Figure 43).

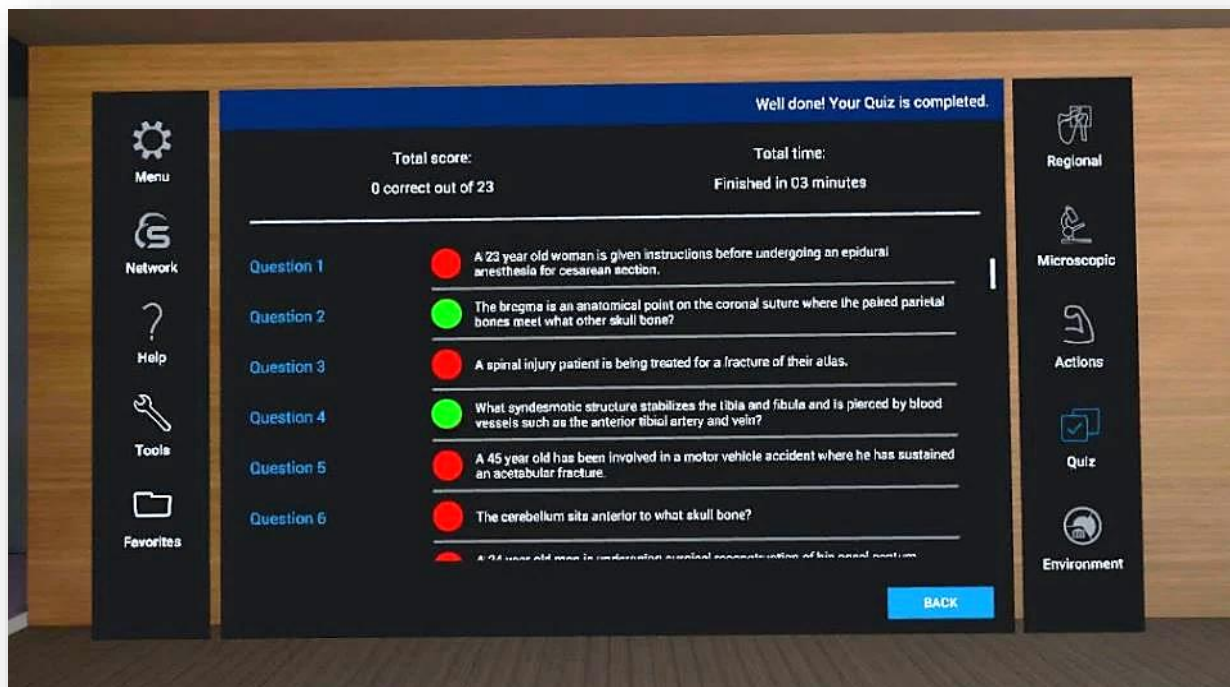


Figure 45. Quiz Results



Figure 46. Question Review

## 11.3.2 Quiz Analytics

1. Press the '**ANALYTICS**' button in the **Quiz** menu (Figure 43) to discover a full report of all the previously run quizzes on the device.
2. You can select from individual **Past Quizzes** organized per date and time to review your answers.

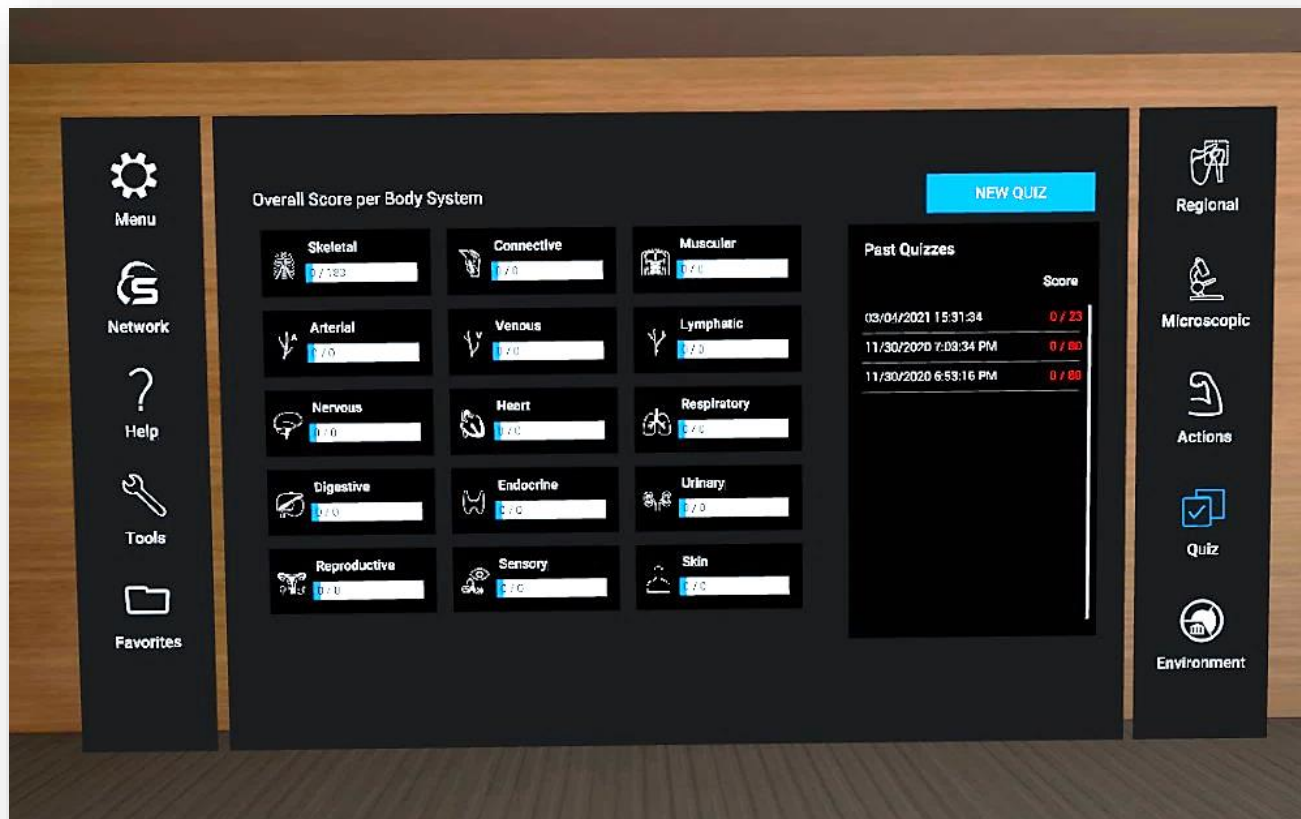


Figure 47. Quiz Analytics

## 11.4 Multi-user Cross-platform Sessions

### 11.4.1 Join a session

Any user of 3D Organon 2021 Edition apps, Paid or Free, can join a multi-user anatomy training session employed by an owner of a Premium license or Institution. Cross-platform usage is supported, enabling non-VR users (e.g. desktop and mobile device licenses) to join a session created by a user/instructor using a VR device and vice-versa.

1. Press the '**Network**' icon on the left side panel.

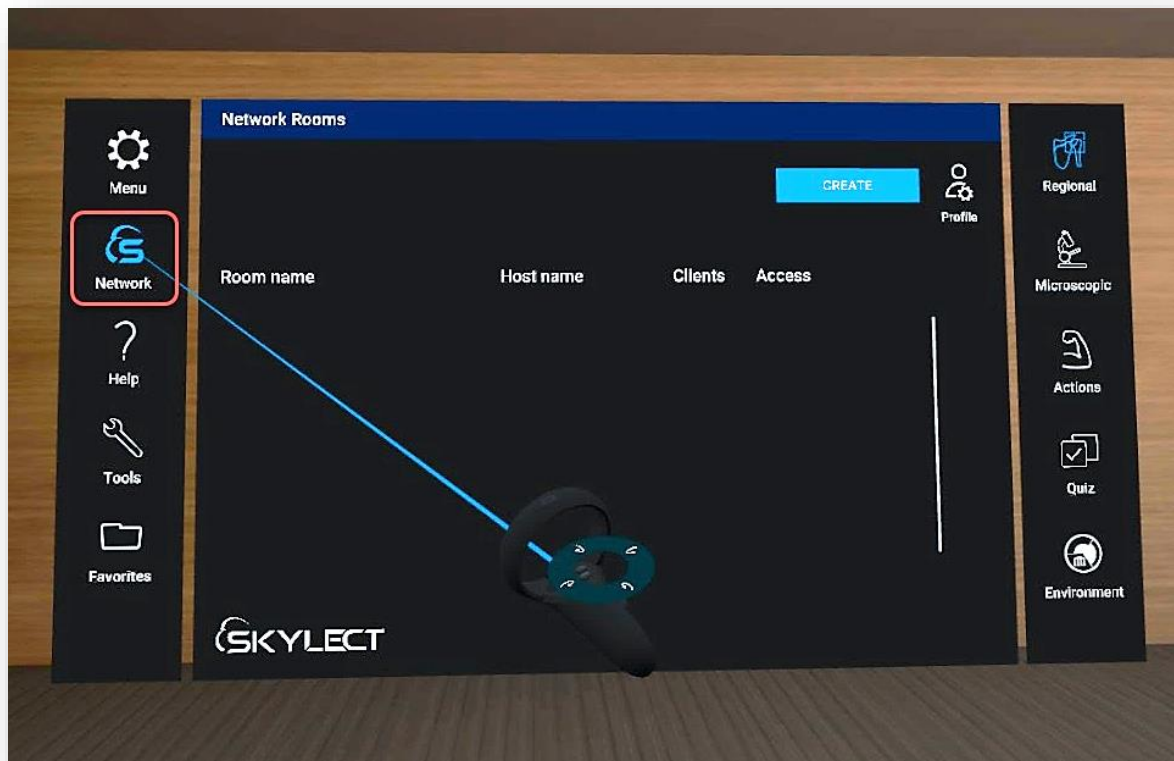


Figure 48. Network Rooms



2. To change your user name or avatar press the '**Profile**' icon (Figure 48). This will need to fill in the information shown in the picture below.

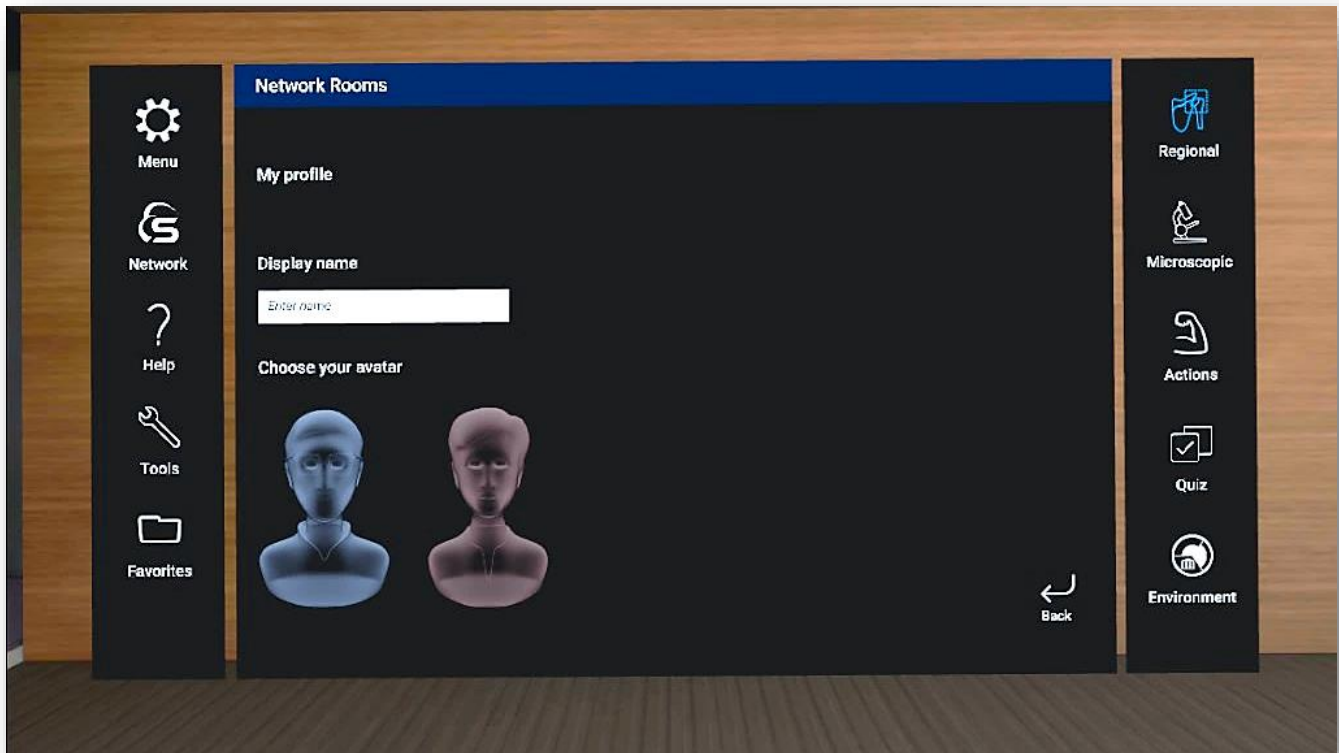


Figure 49. Profile

3. Select from the list of the available rooms and press the '**JOIN**' button.
4. If a password is required to join a particular room, please contact your institution/instructor.  
The room will load within a few seconds.
5. You can follow the session as presented by the tutor and communicate using voice and text chat functions (Figure 52).

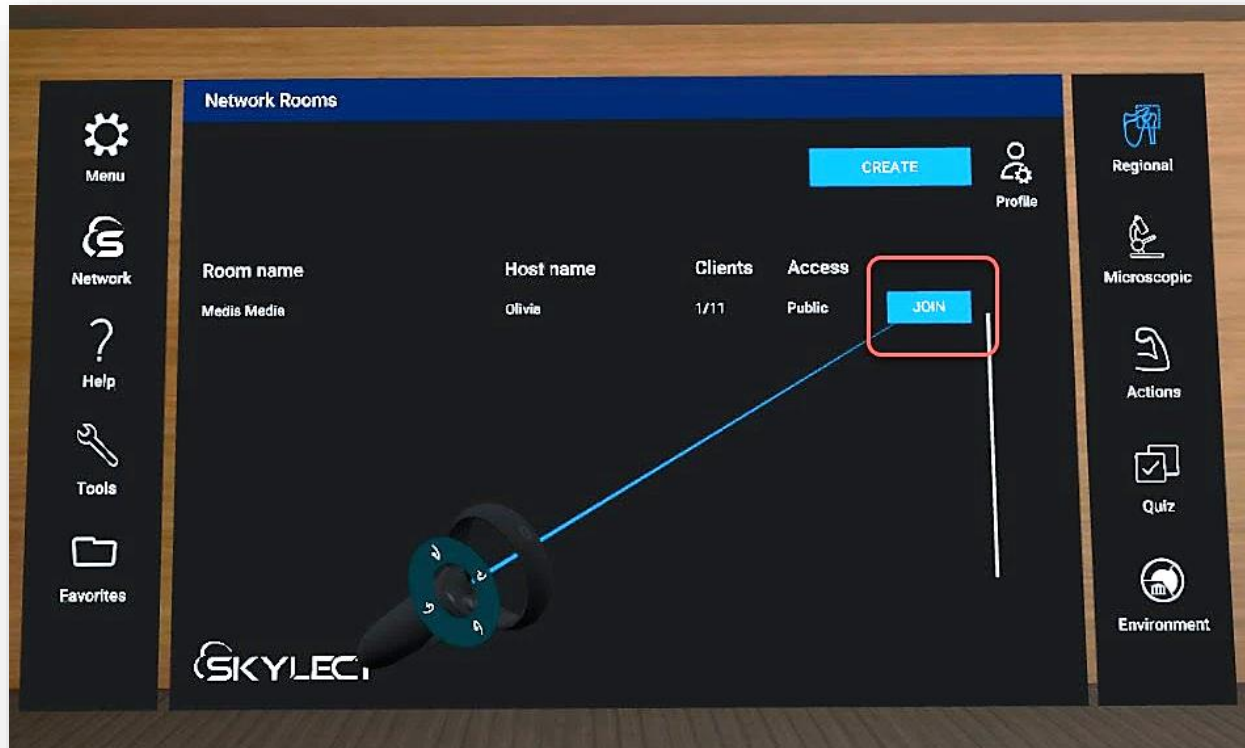


Figure 50. Join the Room

## 11.4.2 Create a Remote Delivery Session

Owners of the **Premium edition** are also able to create virtual rooms and host remote delivery anatomy teaching sessions. Other users with access to the internet can join a session from anywhere in the world.

1. Click on the '**Network**' icon on the left side panel (Figure 48).
2. To create a room, click on the '**CREATE**' button (Figure 50).
3. Now you can enter the desired Room name, Number of supported clients, Room visibility (Private/Public), and an Optional password (check the image below).
4. Press the '**CREATE SESSION**' button to initiate your session.

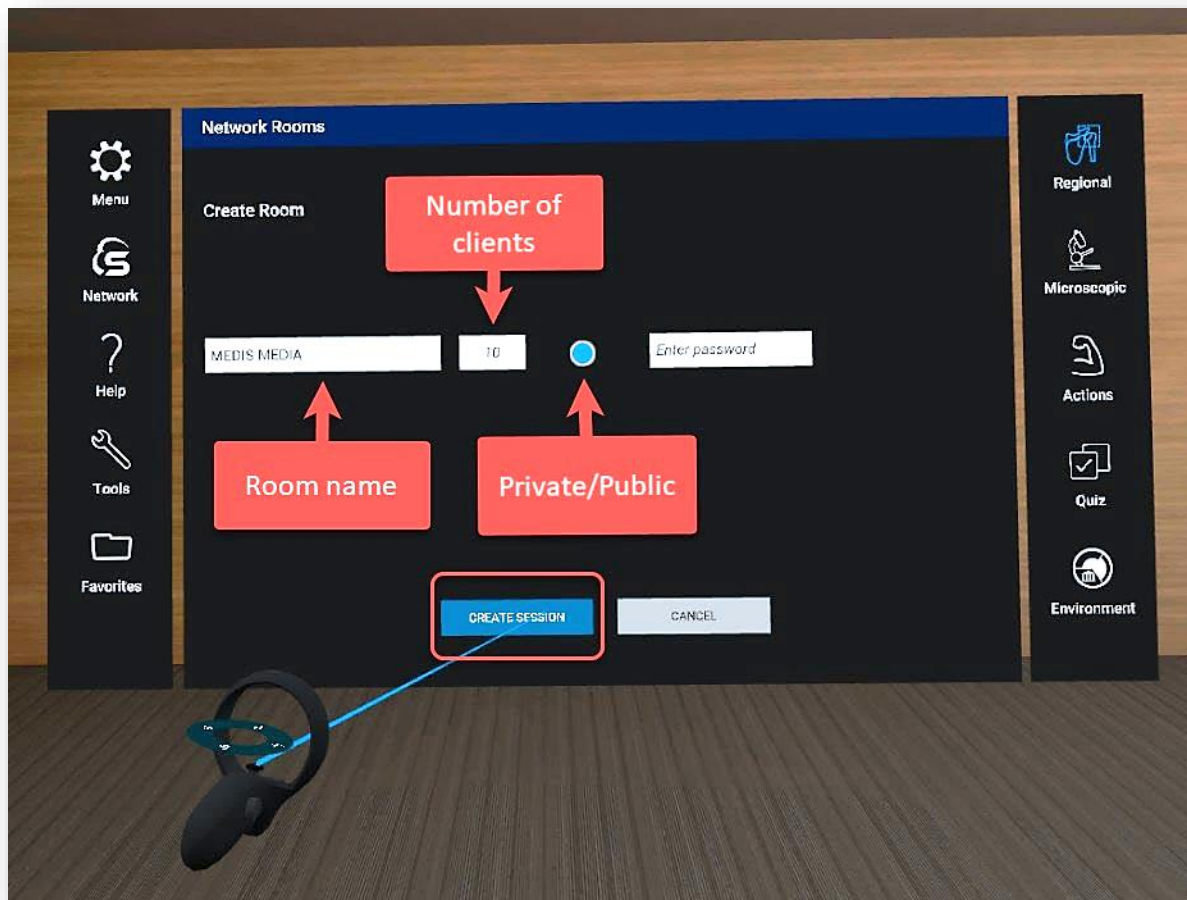


Figure 51. Create a Room for Remote Delivery

5. Inside the virtual room, you can unmute/mute users by clicking on the **'Microphone'** icon on the left of each username/Participant (Figure 52).
6. Users can type messages in the chatbox (Figure 52).
7. To exit the room, press the **'LEAVE'** button next to the Main menu (Figure 53).

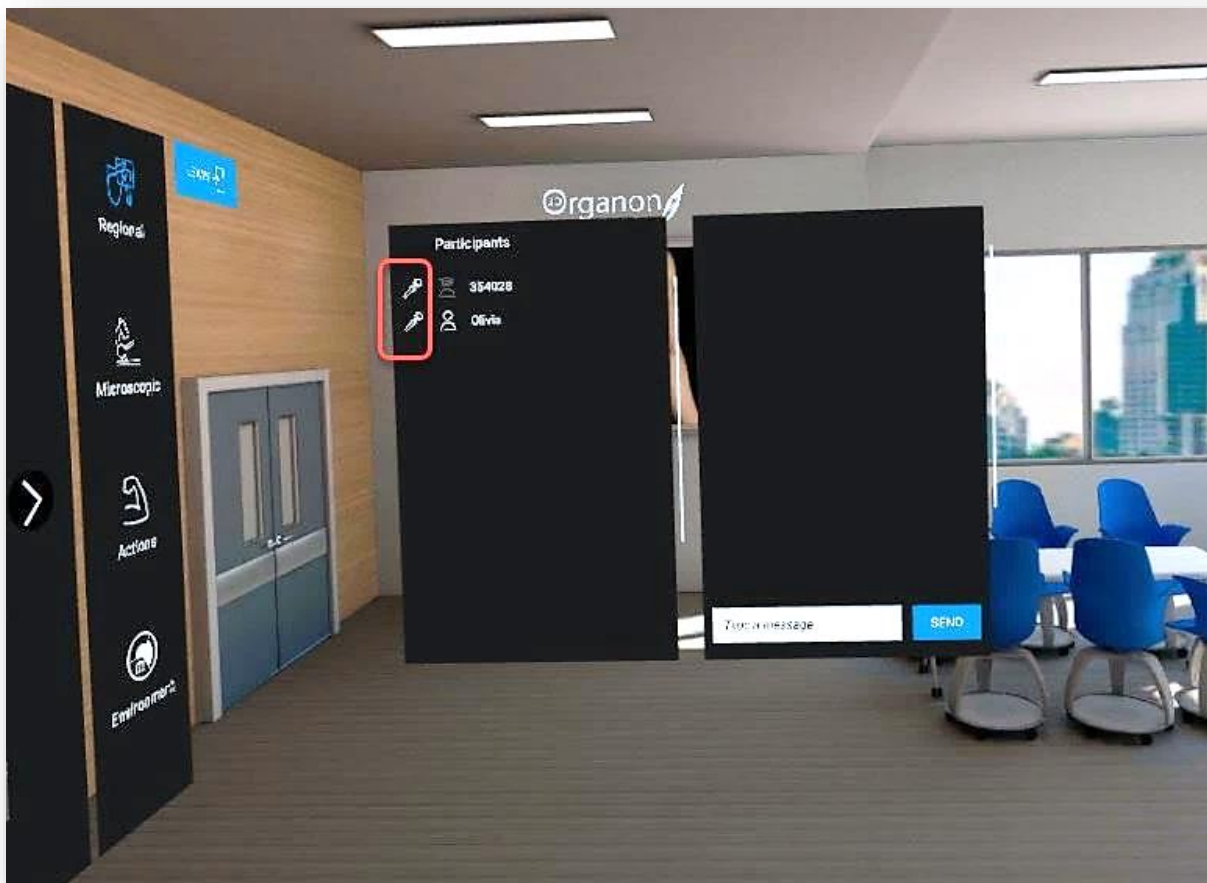


Figure 52. Talk and Chat Options

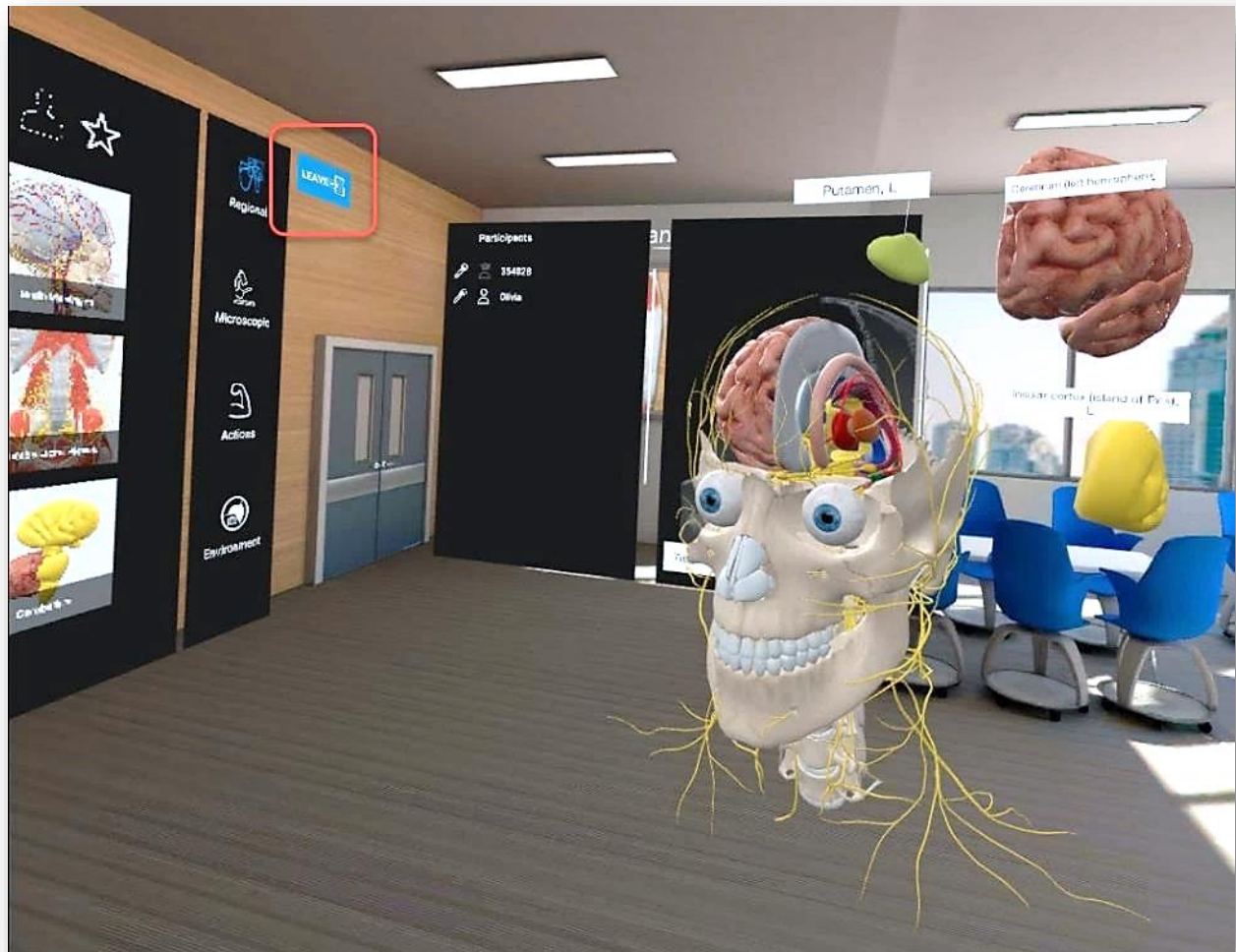


Figure 53. Leave Network Room



### 11.4.3 Network Services Documentation

By default, the multi-user function in 3D Organon Anatomy uses three essential services. These services include 3D model, voice chat, and text chat synchronization across users and educators in a virtual anatomy teaching session.

Ensure you allow the following ports and protocols for full access to 3D Organon networking services:

**TCP:** 843, 943, 4520, 4530-4532, 4540, 9090-9092

**UDP:** 5055-5058

Please ensure you allow traffic to and from the following domains:

**license.3dorganon.com**

**def.3dorganon.com**

Please ensure these ports are open in your router/firewall AND the firewall in your operating system (e.g., Windows firewall).

In case you are experiencing problems with either of these services, please contact the IT helpdesk in your institution. They will know your network infrastructure requirements and have access to modify firewall settings.

## 12 Body Actions

The Actions module includes animations of joints, muscles, and other organs. Animations of the Skeletal system and Connective tissues are included for free in Guest mode. All other animations require a paid 3D Organon license.

### 12.1 Play an Animation

1. Click on the **'Actions'** icon on the right side panel to access body actions.
2. To load an animation, select a body system on the top of the main menu panel. List 1 (on the left) and List 2 (on the right) appear.
3. Click on the selected animation from List 2 and it will start playing in a loop.

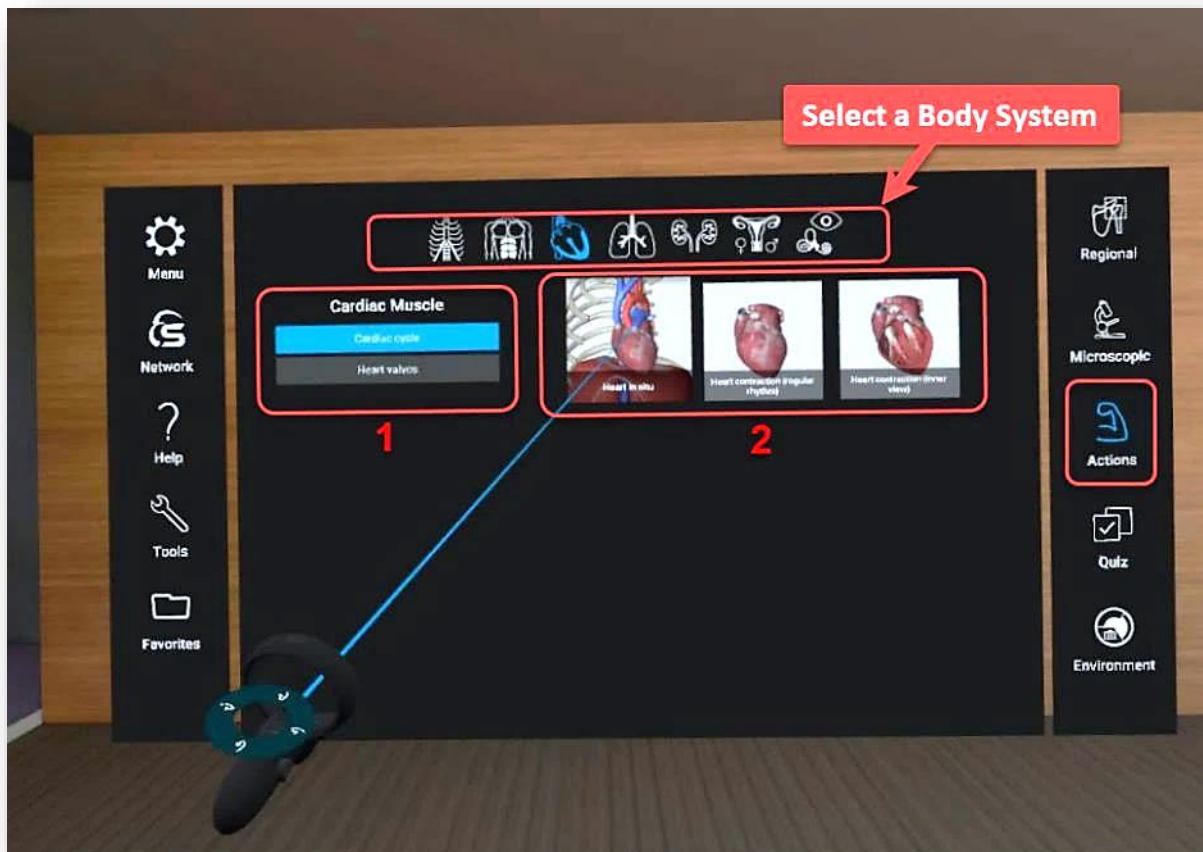


Figure 54. Body Actions

4. Control the animation flow using the controls.
5. You can rotate, scale and pan the model with your controllers.

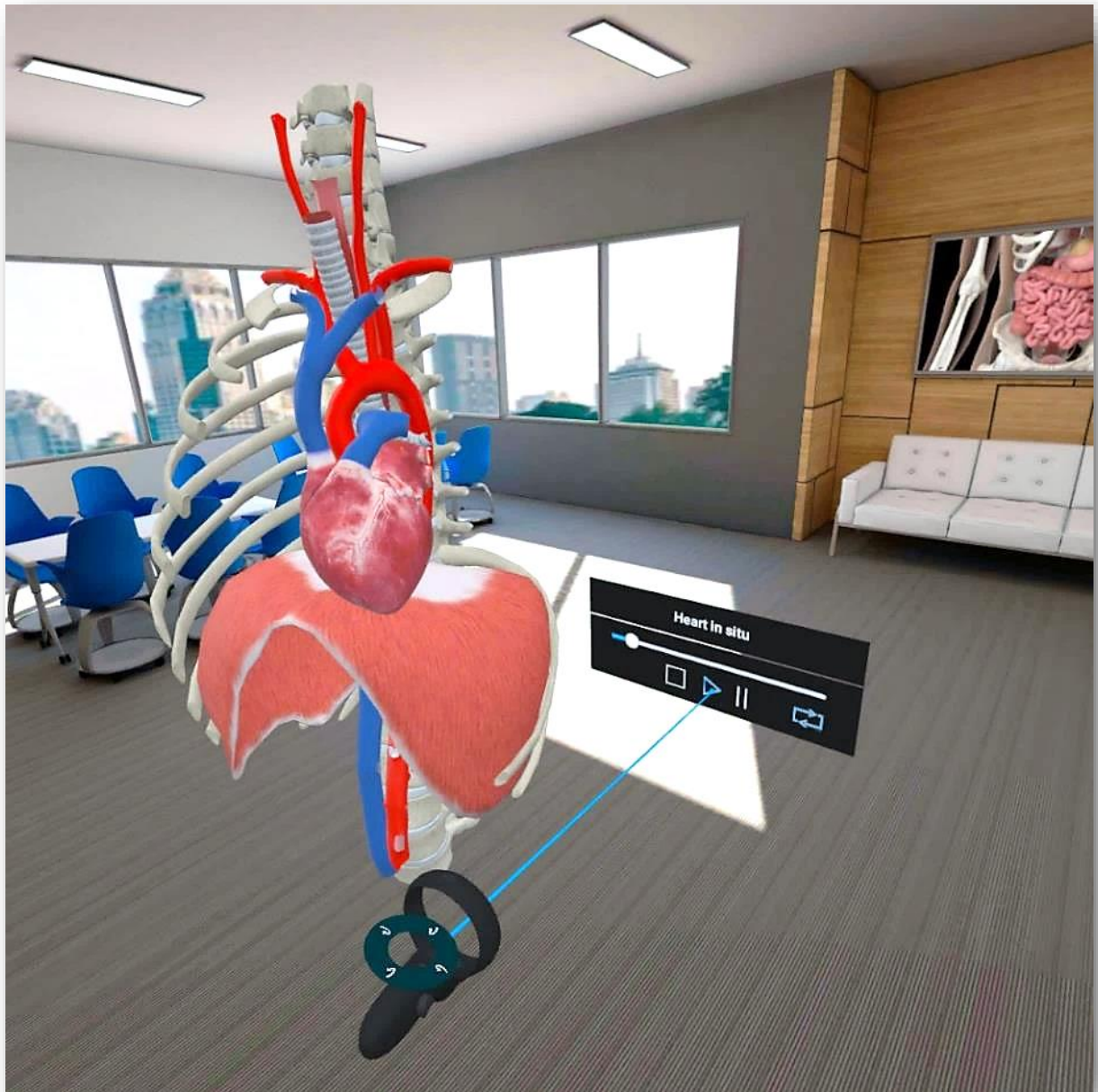


Figure 55. Animation

