CREAMS

Scaffolding Creativity of Arts Students: Framework, Toolchain, and Educational Material on how to Create their Own Virtual Exhibitions

Manual for the CREAMS Student Workshop and Personalized Virtual Reality Editor

CREAMS Project Consortium

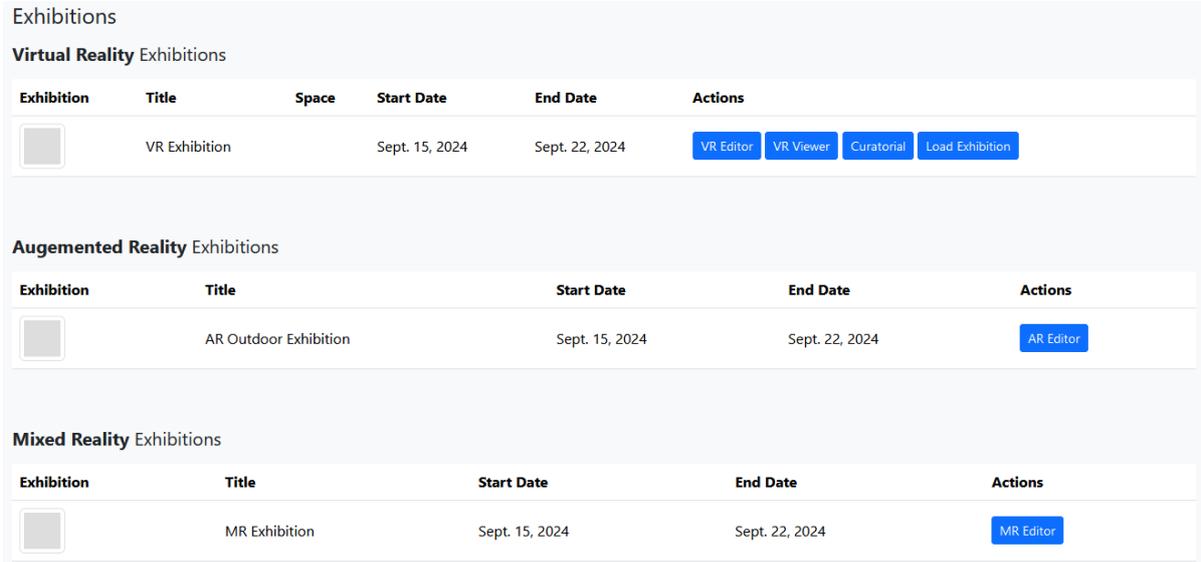| Partner 1 / Coordinator	University of Patras
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Executive Summary

This document provides a guide manual for the CREAMS student workshop and personalized Virtual Reality editor.

Student Workshop

In the students' workshop user interface, students may access a variety of tools for managing their artworks and media, and create and manage exhibitions.

Exhbitions.

The main exhibitions user interface (**Figure 1**) summarizes the main exhibitions that the student has been assigned to including details about the exhibitions as well as action buttons for editing mainly the exhibitions.

Figure 1. Exhibitons user interface.

Furthermore. the Artworks Manager allows students to upload, view, and edit both two-dimensional (2D) and three-dimensional (3D) artworks.

Step 1: Open the Artworks Manager

- Log in to the CREAMS Online Dashboard.
- Select Artworks Manager from the main menu.

Step 2: Review Your Artworks

- The main page is split into two sections: 2D Artworks and 3D Artworks.
- Each section lists all artworks you've uploaded, displaying title, thumbnail, and upload date.

Step 3: Upload a New Artwork

- Click Upload 2D Artwork (for images) or Upload 3D Artwork (for models).
- In the file-selection dialog, choose your artwork file and click Open.
- Wait for the upload confirmation message.

Step 4: View an Existing Artwork

- In the appropriate section, click the artwork's thumbnail.
- For 2D artworks, an image preview appears.
- For 3D artworks, the built-in 3D viewer loads

Figure 2. List of two-dimensional and three-dimensional artworks.

Figure 3. Creation of two-dimensional artwork.

Follow the steps below to add a new 3D artwork to the CREAMS platform.

Step 1: Enter Artwork Details

- Navigate to Create 3D Artwork (Figure 4)
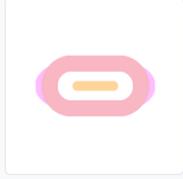
- Fill in the following fields for consistency with 2D uploads:
  - Title
  - Thumbnail image
  - Data type
  - Year, Height, Width, Depth
  - Technique used
  - Select the 3D Artwork Type.
- Choose a supported file format: .GLB, .GLTF, or .OBJ (Figure 5).
- Add relevant keywords/tags to enable personalized recommendations.
- Click Next to proceed to file upload.

Step 2: Upload 3D Files

On the upload screen (Figure 6), click Select Files.

- Attach all necessary assets (3D model, texture maps, etc.).
- Confirm that each file meets platform requirements.
- Click Upload.
- A confirmation message will appear once the upload succeeds.

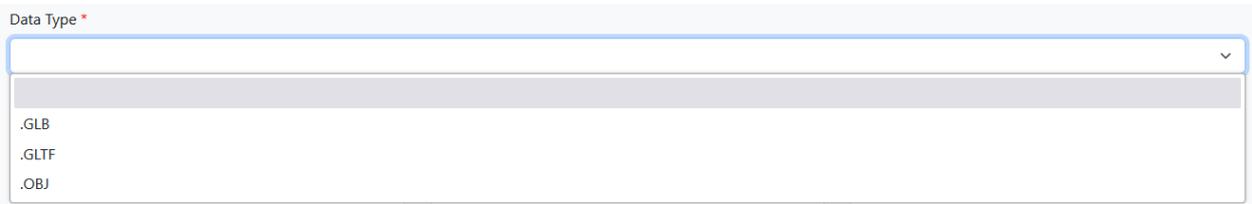**Figure 4.** First step for the creation of a three-dimensional artwork.

Figure 5. The CREAMS platform currently supports uploading three-dimensional artworks in .GLB, .GLTF and .OBJ formats.
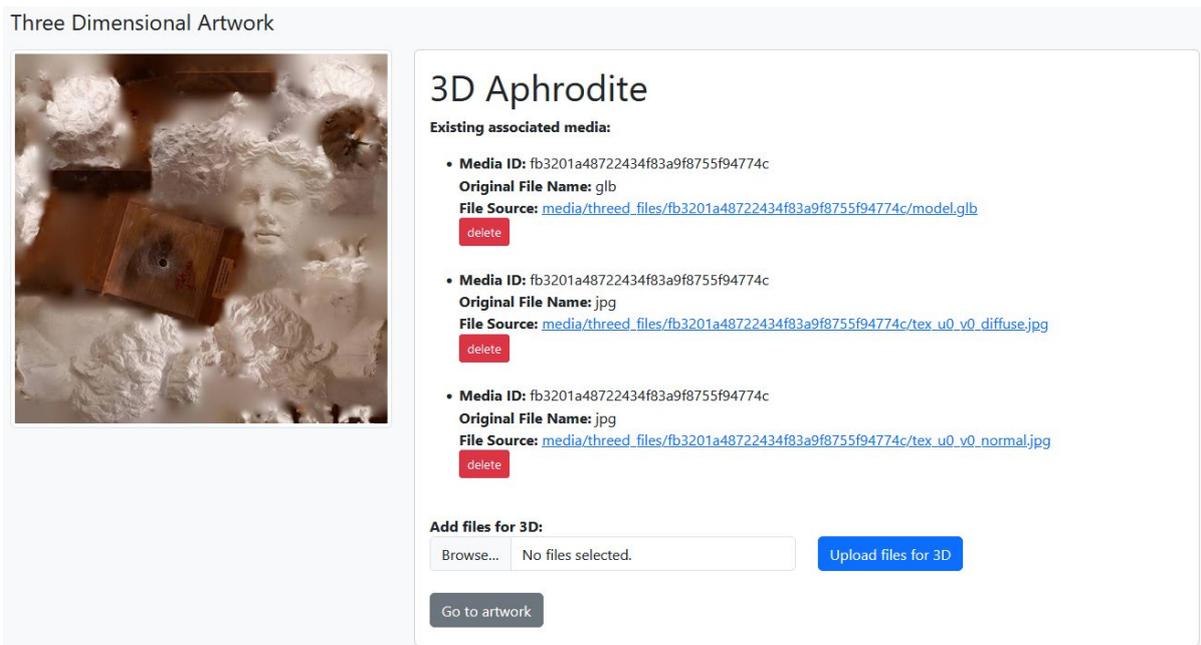

Figure 6. Students may upload any file that is relevant to the three-dimensional artwork.

Personalized Art Student Workshop - Virtual Reality (VR) Editor

The virtual reality editor of CREAMS is a Web-based application that enables students to create personalized virtual reality exhibitions based on the artworks uploaded through the artworks manager.

Create Your Exhibition Space

- Click any empty canvas block to add a room.
- The first room becomes the default starting point (highlighted).
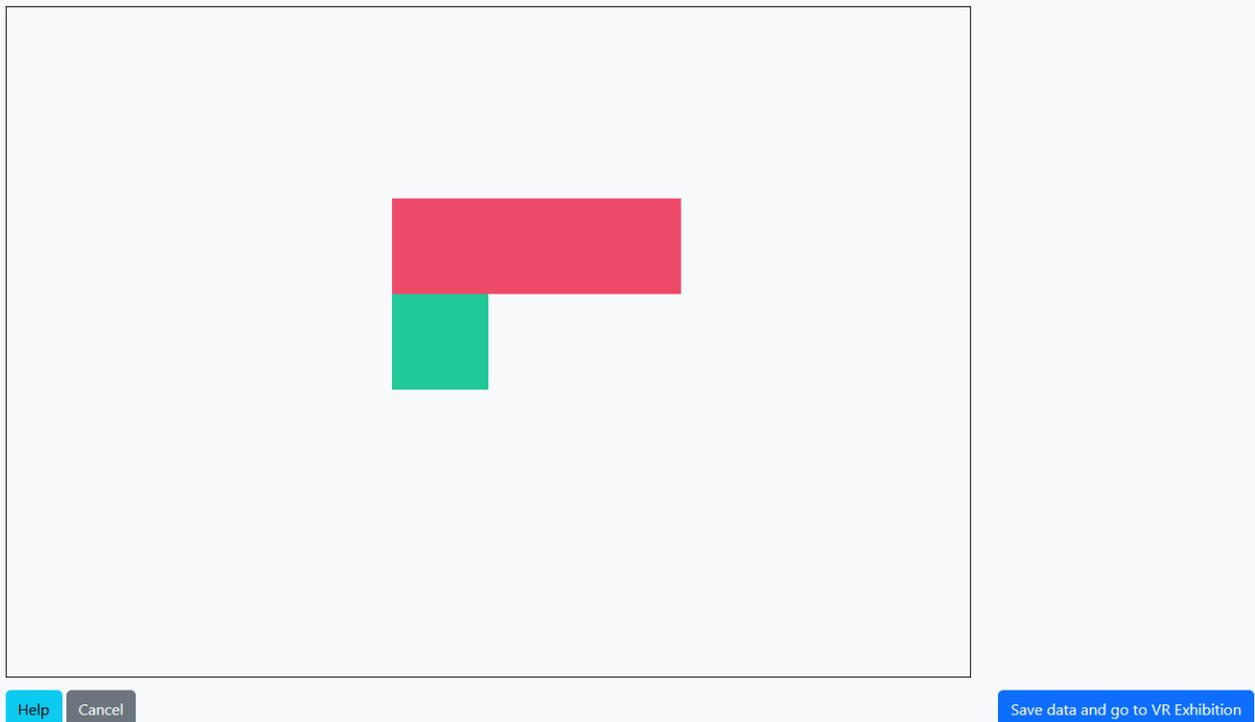- Click a block again to remove it or set it as the starting point.

Figure 7. Modular space creation for an exhibition.

Use the Editor Panels/Tabs

The screen splits into two areas:

- Left: live 3D view of your exhibition
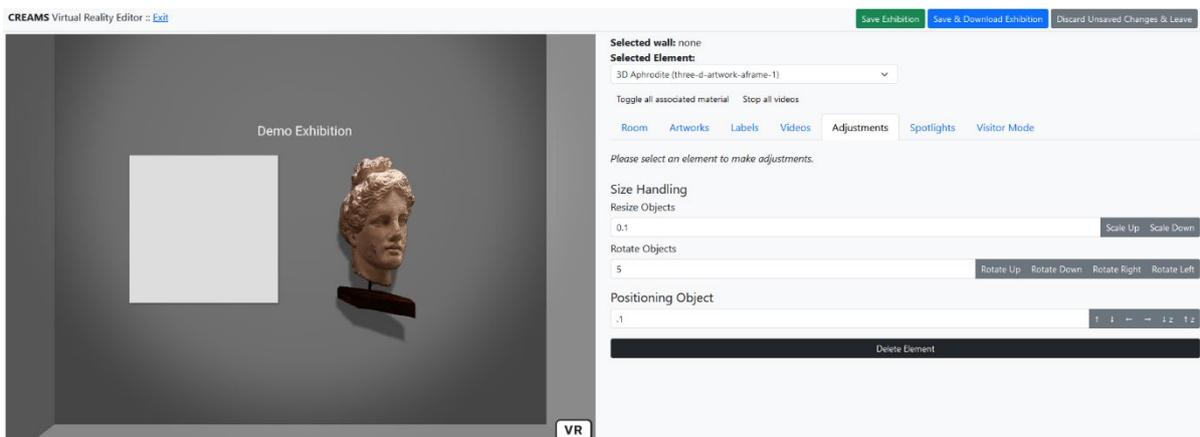- Right: tabbed toolset for editing

Figure 8. Main view of the VR editor and the tools for editing and managing elements of the exhibition.

Room Tools

- Select the Room tab.
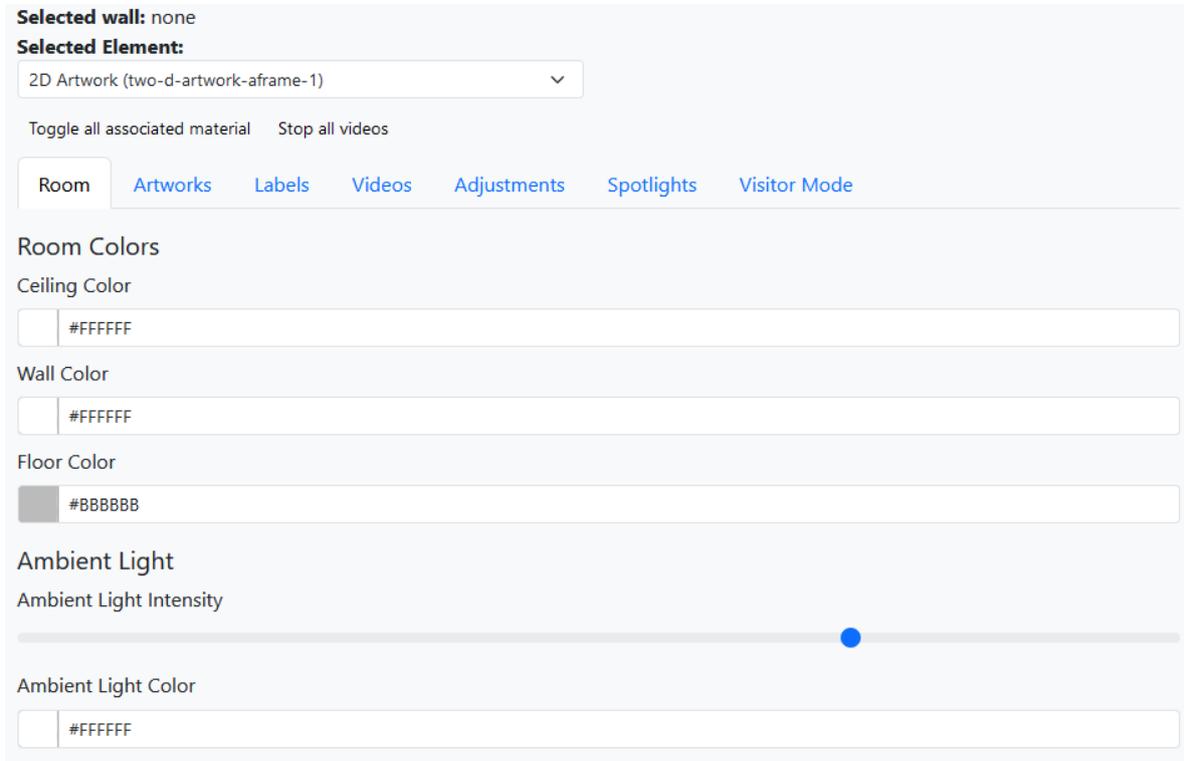- Change wall, ceiling, floor colors, and ambient light settings.

Figure 9. Tools for editing the room-related attributes.

Artworks Tools

- Select Artworks.
- Choose a 2D or 3D artwork from the list.
- Click a wall to place it or enable "Add as associated material" then click an existing artwork.

Figure 10. Tools for managing and assigning artworks to the exhibition.

Labels Tools

- Select Labels.
- Type your text, then click a wall to attach it or add as associated to an artwork.

Figure 11. Tools for managing and assigning textual information (labels) to the exhibition.

Media Tools

- Select Media.
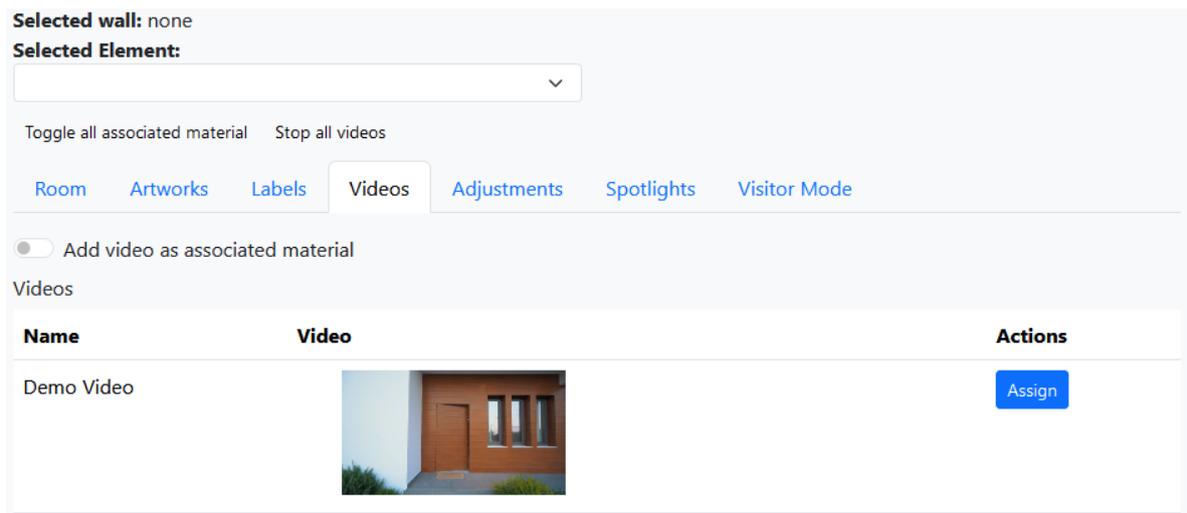- Pick a video and click a wall to embed or add as associated to an artwork.

Figure 12. Tools for managing and assigning videos to the exhibition.

Adjustment Tools

- Select Adjust.
- Pick an element (via dropdown or by clicking it).
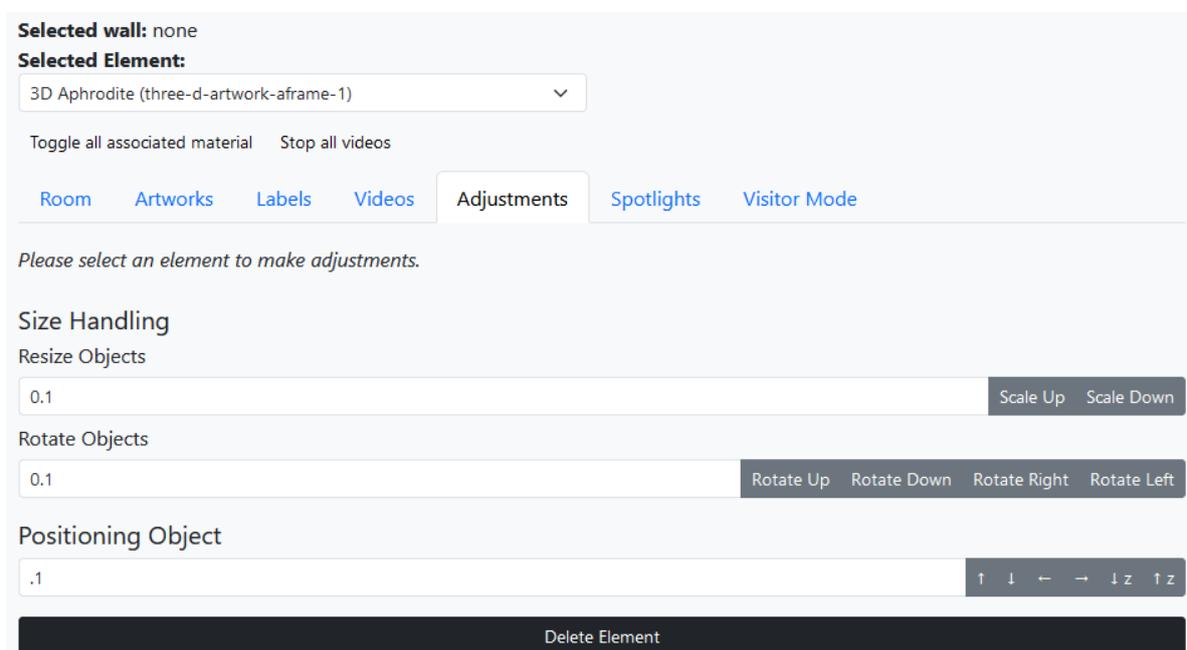- Resize, rotate, and reposition as needed.

Figure 13. Tools for editing and adjusting elements (artworks, labels, videos, associated material) that have been assigned to the exhibition.

Spotlight Tools

- Select Spotlights.

- Click a wall to add a spotlight, then adjust color, intensity, angle, and position.
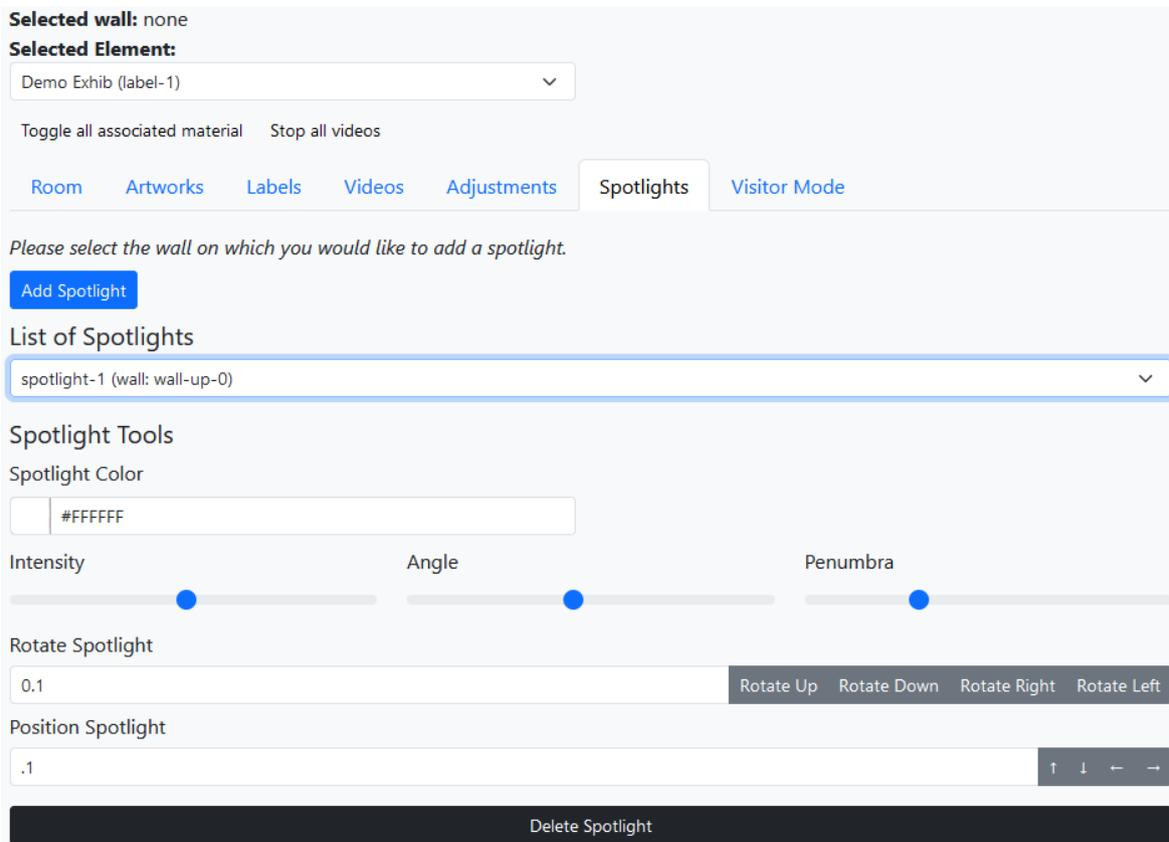- Remove a spotlight via the assigned-spotlights list.

Figure 15. Tools for assigning and editing spotlights in the exhibition.

Visitor Mode

- Toggle Visitor Mode to test interactive features (show/hide associated content, play/pause videos) as a visitor would.

Figure 16. Visitor mode in which the student can test functionality as a visitor would do.