

MIDTERM & FINAL PROJECT · JOINT ASSIGNMENT

In this joint assignment for the midterm and final project, you will combine your skills in level design, gameplay programming, and high-level game design to create a proof-of-concept architectural visualization or furniture assembly simulation in an interior environment. This project will showcase the learning outcomes of this course.

MIDTERM ASSIGNMENT: HLDD, Pitch Slides, and Initial Level Design Video**Requirements**

- Develop a High-Level Design Document (HLDD) for your architectural visualization or furniture assembly simulation, including the HLDD sections mentioned in the previous courses.
- Create a High-Level Game Design Pitch Presentation consisting of 3-6 slides that effectively capture and summarize the core design elements, mechanics, and premise of your application.
- Start the implementation of the following features in your project:

Architectural Visualization

- Real-time, photorealistic rendering of the interior environment.
- Interactive lighting, materials, and textures.
- Interactive objects in the environment with information or gameplay elements.
- Dynamic navigation and/or VR locomotion to explore the environment.
- *Optional for midterm:* Integration of VR support for an immersive experience.

Furniture Assembly Simulation

- Interactive 3D models of furniture components.
- Drag-and-drop functionality for assembling furniture pieces.
- Snap-to-grid or snap-to-object system for accurate alignment.
- *Optional:* Integration of physics-based interactions for a more realistic experience.
- *Optional for midterm:* Integration of VR support for an immersive experience.
- Record an initial video walkthrough (30-60 seconds) showcasing the environment you have created for your architectural visualization *or* furniture assembly simulation. The file size should not exceed 120 MB¹. You can use OBS or NVIDIA ShadowPlay to capture the video.

Deadline

2023-05-04 09:30 – If you can't upload the file directly to Ninova, you can submit the downloadable video file link (uploaded to Google Drive, OneDrive or Yandex.Disk) on Ninova before the deadline.

FINAL ASSIGNMENT: Complete Project, HLDD, One-Pager, Video Capture, and Pitch Slides**Requirements**

- Develop a complete and polished version of your architectural visualization *or* furniture assembly simulation based on the feedback and improvements from the midterm submission. Make sure to refine and expand upon the technical features implemented in the midterm.
- Create a HLDD, and a one-pager summarizing your project.
- Record a playthrough video capture (1-2 minutes) showcasing your final project, demonstrating the features, interactions, and overall experience. 120 MB¹ is the max. file limit as usual.
- Prepare a final project presentation, including updated pitch slides, to present your project to the class.

Deadline

2023-05-24 23:59 – Present your work in class on Week 14. Submitting your final assignment on Ninova before this deadline is mandatory for possible revisions.

¹ You can use Adobe Premiere/Premiere Rush or HandBrake with "Web > Creator 1080p60" preset to optimize the video size (H.264 coding format, .mp4 container format, 60 FPS framerate, 8Mbps target bitrate, 48 kHz AAC stereo audio).