



Assignment #1 (CE5390 & CE4377)

CE5390 & CE4377 BUILDING INFORMATION MODELING Spring 2025

HW 1 – 3D MODELING (MY DREAM HOUSE PROJECT)

DUE DATE: Monday, March 3rd, 11:59 PM

Instructor:

Jaeyoon (Jason) Kim

Office Hours: MW 8:00 – 9:00 am

Office: Engineering Building A-215; **E-mail:** jkim13@utep.edu

Lecture: MW, 4:30 PM – 5:50 PM

Location: Classroom Building C204

Notes:

1. **DO NOT** copy any sources (e.g., given revit files or ones from Internet)
2. If you have any questions after reading the assignment, please contact the instructor.

Assignment 01 – 3D Modeling (My Dream House Project)

1. Introduction

The purpose of this assignment is to explore how to use Revit to create 3D building models in a virtual environment. As a part of hands-on sessions (given tutorials), you learned how to use Autodesk Revit. In this assignment, you will explore modeling strategies to generate robust 3D building models in a virtual environment.

For your assignment, you may build on the given Tutorials, but do **NOT** use the given files as the basis. The details on your building **must** be different from the sample model.

Regarding the detailed modeling, it is not trivial to give all guidelines for each case from A to Z, which means that **the details are open-ended**. Modeling is depending on modelers' decisions.

However, your model **must** include the following items:

- Grid and Level
- Floor
- Column
- Interior and Exterior Wall
- Window
- Door
- Stair
- Shaft Opening
- Railing
- Curtain Wall

2. Process

- Create your 3D building model.
- Create a walkthrough video using Modelo (<http://modelo.io>) to sell your dream house (Go to the next page for more details).
- Upload your walkthrough video on YouTube.
- Create your 3D building model.
- Prepare a walkthrough using Modelo (<http://modelo.io>)
 - Modelo Revit Plugin Installation + Upload (<https://www.youtube.com/watch?v=YJWx5ZSBqLc>)
 - Modelo 3D Tutorial/ Walkthrough (<https://www.youtube.com/watch?v=M9NwlZNgJ8c>)

3. Deliveries

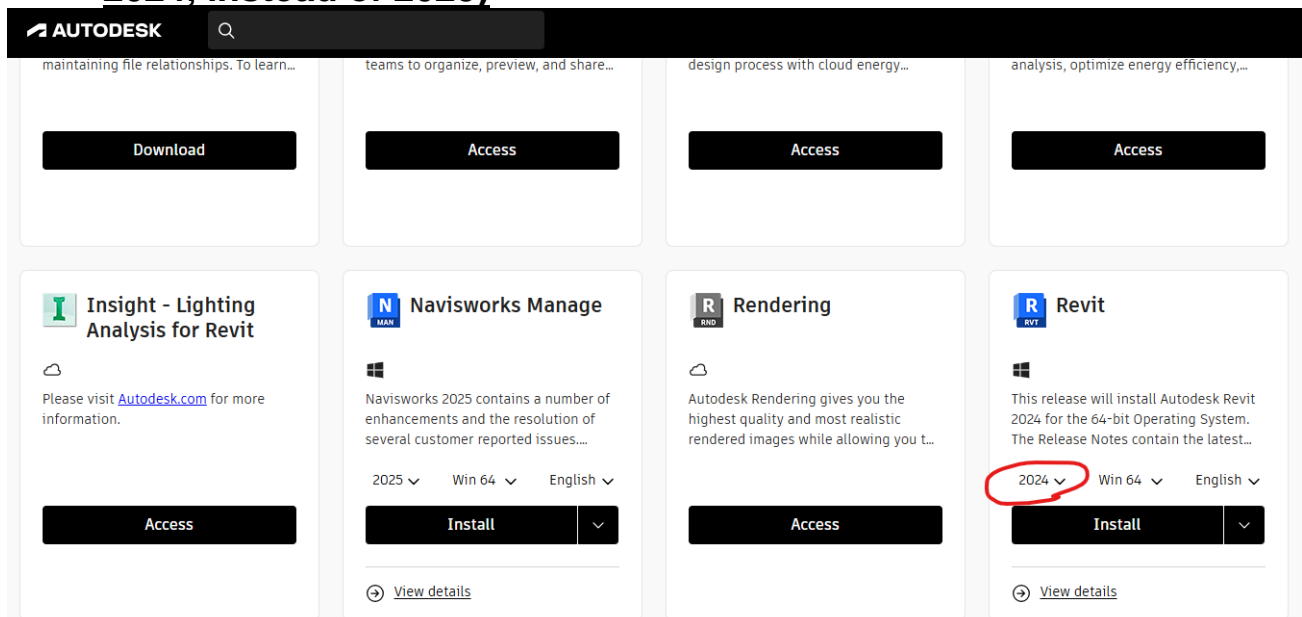
- Submit the following by Monday, March 3rd, 11:59 PM via email to jkim13@utep.edu:
 1. Revit file named as FirstName_LastName.rvt
 2. YouTube link to your uploaded project (walkthrough video)
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4. Useful Other Resources (optional)

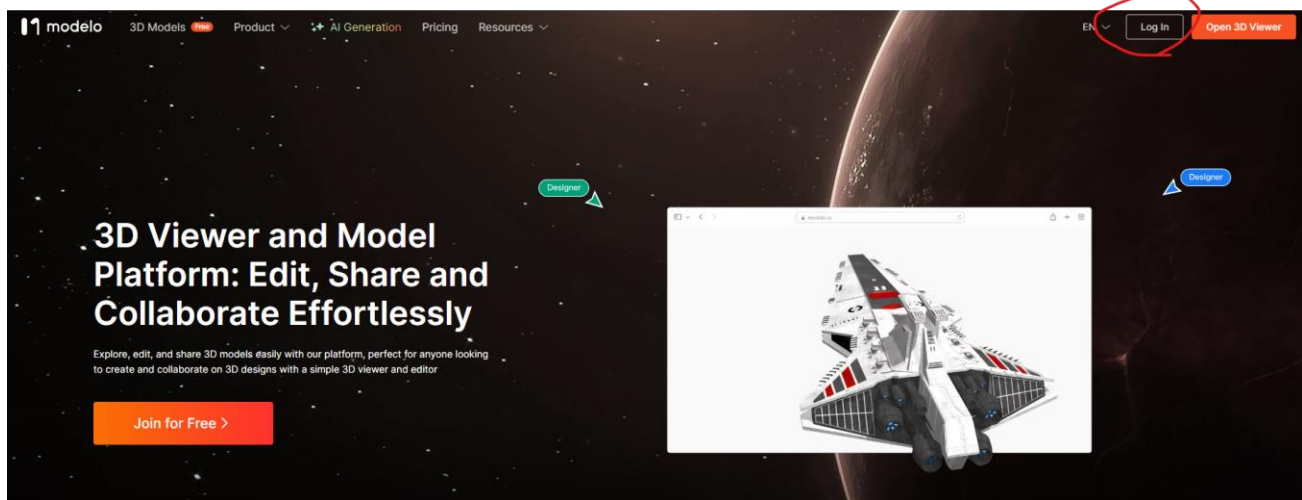
- For creating a video walkthrough or realistic images of your model
 - Using Revit: <https://knowledge.autodesk.com/support/revit-lt/learn-explore/caas/CloudHelp/cloudhelp/2020/ENU/RevitLT-DocumentPresent/files/GUID-DC55E0CD-4796-405A-95D7-B448C458A38F-htm.html>
 - Using Modelo (more realistic rendering, but free trial is limited): https://www.youtube.com/watch?list=PLWeEvc_1kixQNRbFbXeI-fw_t9Y0IYBgL&v=M9NwIZNgJ8c
 - Using Enscape (more realistic renderings, has good student license): <https://blog.enscape3d.com/best-practices-video-creation-in-revit-2019>
 - Student License for Enscape: <https://enscape3d.com/educational-license/>
- For recording your screen
 - Use the windows 10 built in snipping tool for taking screenshots of selected areas instead of your entire screen
 - Bandicam to record your screen (for video): <https://www.bandicam.com/product/>
 - Use the windows 10 built in video editor or other video editing software of your choice if you need to edit videos and add voice over.

5. Instruction on how to create a walkthrough video using Modelo (<http://modelo.io>)

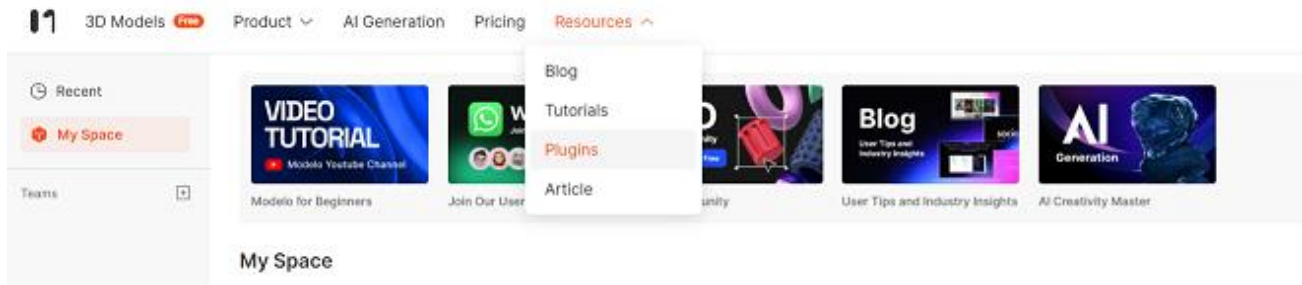
1. **Download Revit 2024 (You need to create your model in Revit 2024, instead of 2025)**



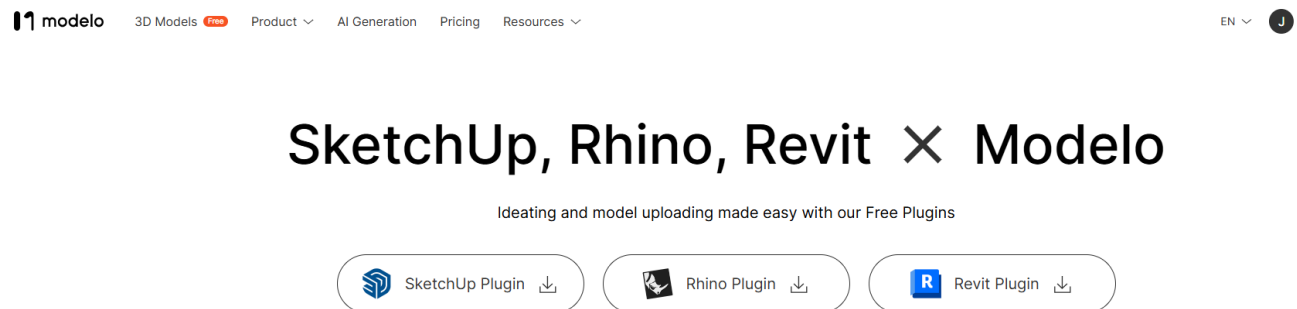
2. Go to the Modelo website: <https://modelo.io/>
3. Sign up and then log in



- Click “Resources” and “Plugins” and install in your computer

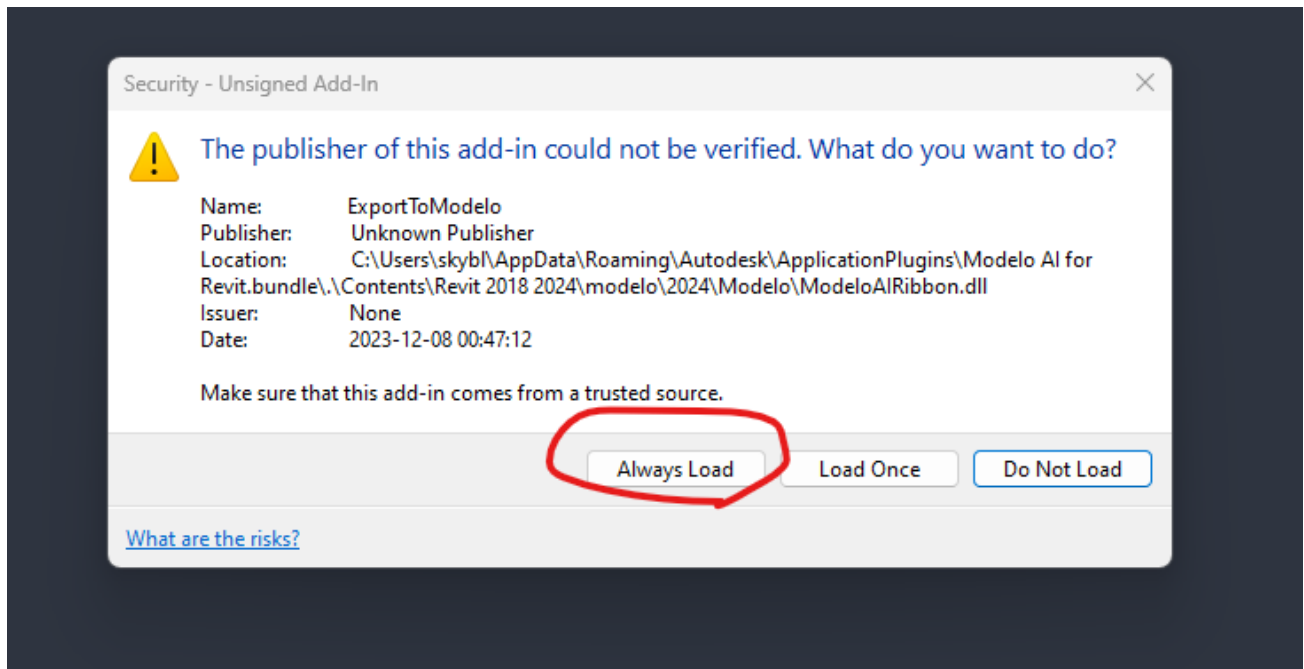


- Click “Revit Plugin” and Download it and install “modeloAI-Revit-en.exe” in your computer

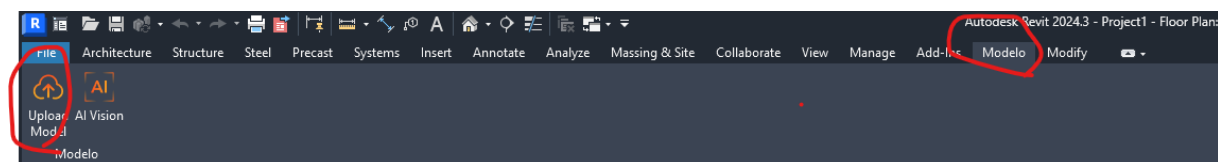


- After installation, open your 3D model in the **Revit 2024** version (**Please use Revit 2024, instead of Revit 2025**).

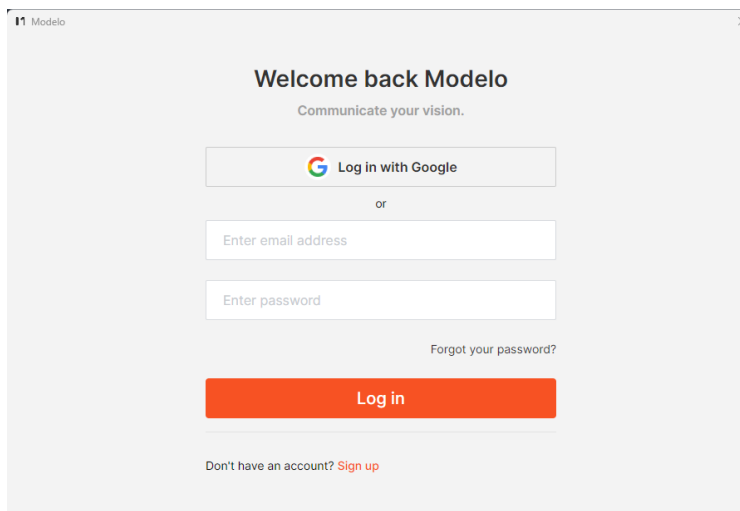
- Click “Always Load” when you open the Revit 2024

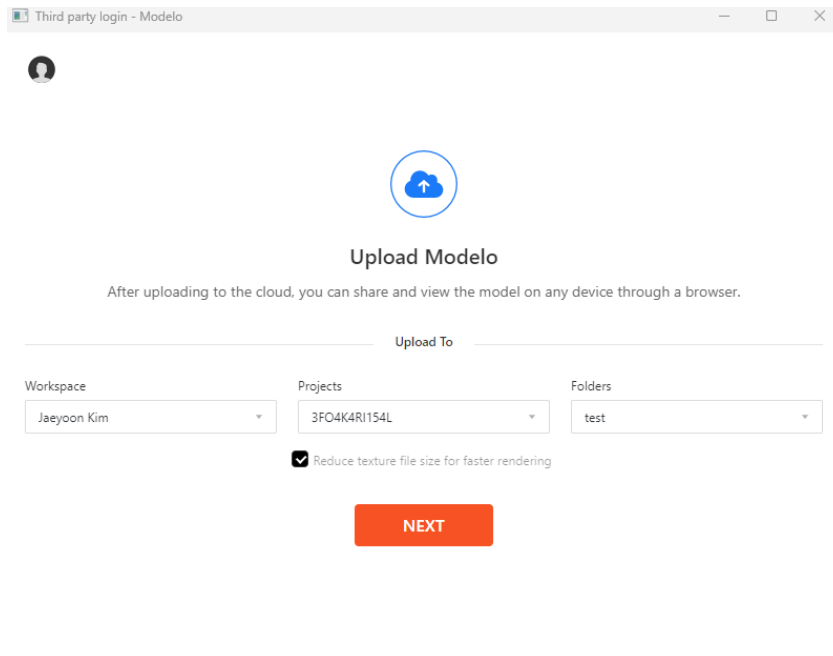


8. Click “Modelo” Tab and then Click “Upload Model”

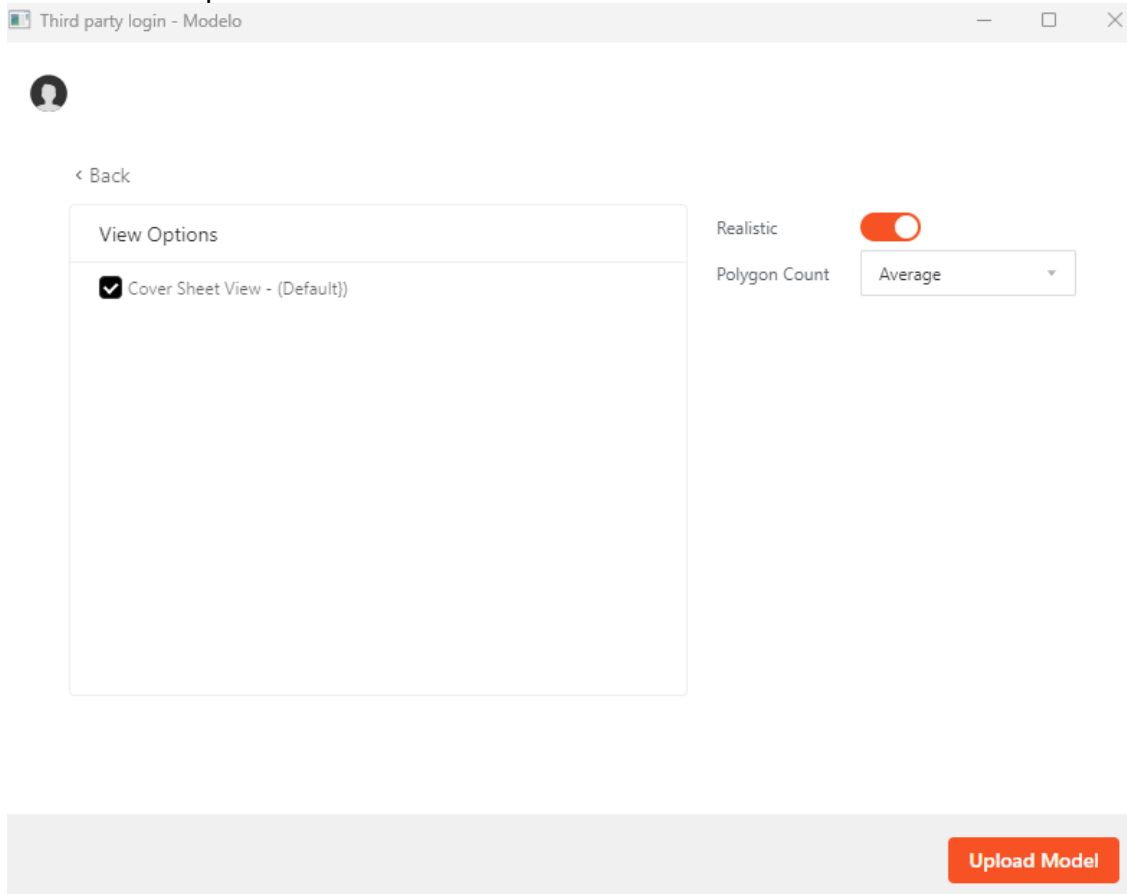


9. Please sign in Modelo and check the workspace, create project name in projects, and create the folder that you want to upload your model, and then click “Next”





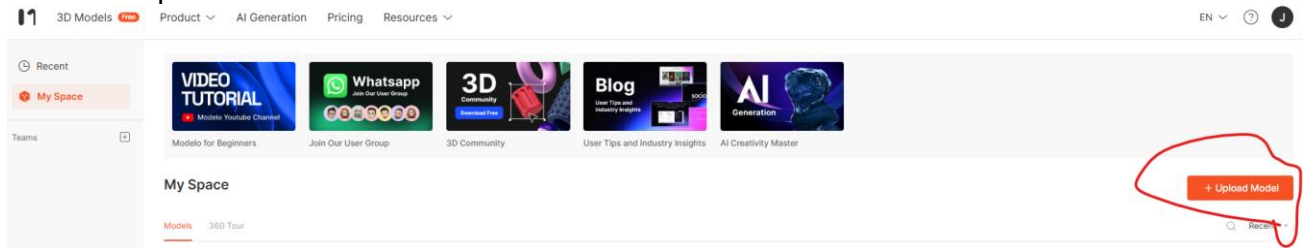
10. Click “Upload Model”



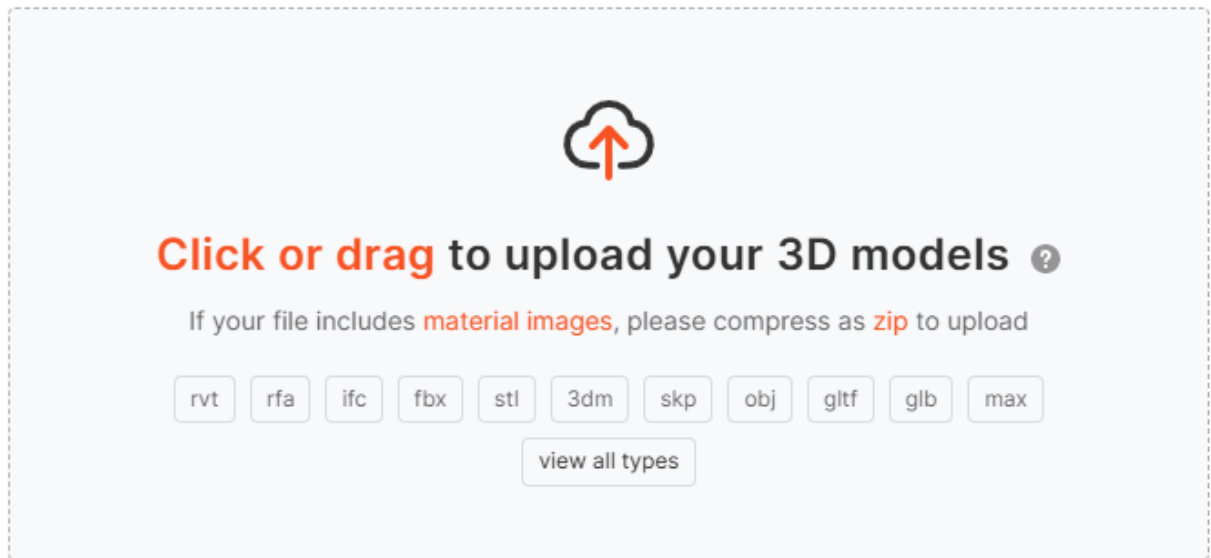
11. If this procedure is not working (Step 7 to 10), you can directly upload your 3D model in Modelo workspace. Go back to the Modelo website and Click “Go to Workspace” on

the top right corner

And then, Go to your workspace, click “+ Upload Model”, upload your 3D model, and click “Upload”



Upload Model



Options ▶

CANCEL

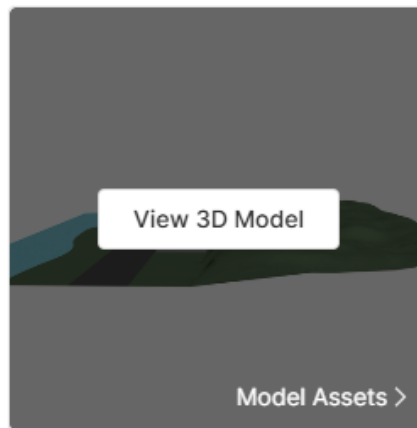
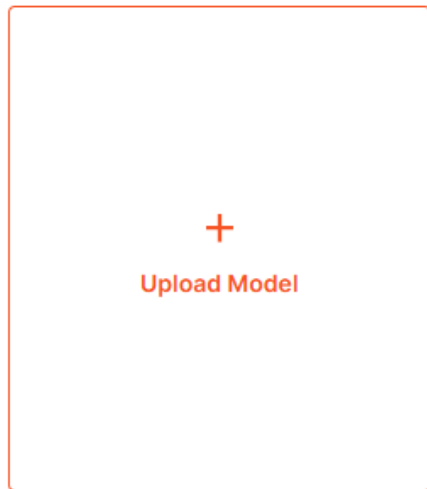
UPLOAD


12. Go back to the Modelo website and Click “Go to Workspace” on the top right corner and click “Upload Model” the project name and then create

13. Click your 3D model in your workspace and then click “VIEW 3D MODEL”

My Space

Models 360 Tour



Step 0_Introduction_revit...  ...

14. Then, click "Create Walkthrough" and create your walkthrough video



15. You can record the walkthrough through diverse screen recording programs

- Ocam official website: <http://ohsoft.net/eng/ocam/download.php?cate=1002>
- Bandicam official website: <https://www.bandicam.com/>

16. After recording the video, you can upload on your Youtube account.

If you have any questions, please send an email to Instructor (jkim13@utep.edu)