

Zenith Project Proposal

How do you ignite your passion and elevate your skills and experiences to create your ultimate and most successful Freestyle project?

The purpose of the Senior Zenith Project is to ignite your passion and elevate your skills and experiences to create your ultimate and most successful Freestyle project! The Zenith Project will be your LAST project in your Production Class.

Note: Staff has decided to drop the Showcase Project because of the lack of time and the difficult logistics of doing virtual project reviews by professional artists.

*All of our 21st Century goals apply to this project; however, for this Zenith Project, a significant goal is for you to develop **Self Direction** – the ability to set goals related to learning, plan for the achievement of those goals, independently manage time and effort, and independently assess the quality of learning and any products that result from the learning experience.*

In preparation for your meeting with your Production Teacher, you will need to organize a proposal of your Zenith Project including a description of your project. You (and your group members, if you have a partner or a group) will have a 10-minute window to explain the elements of your project plan indicated in the list below and receive feedback.

Your Zenith Proposal Pitch will take place on **TBA in your Production Class**

In order to adequately prepare for your meeting, copy and paste everything below the dashed line below into a new Google Document and name the document Lastname_Firstname-Zenith Proposal - NO NICKNAMES! Complete each section and share the entire document with your Production Class teacher.

This will serve as the common document you and your production teacher will view during your proposal window, and you will hear revision suggestions from brainstorming with your teacher. You will be required to take notes and implement all suggested changes in your revised proposal document.

After your initial Proposal Meeting, revise your proposal and submit your REVISED and FINAL Zenith Proposal by TBA as **Lastname_Firstname-Zenith FINAL Proposal.pdf**

Zenith Project

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Zenith Project Description / Requirements:

1. What is your project? Why is this particular project a passion for you? Discuss the final media form as well as the content you envision.

➤ **My Zenith Project is investigating 3D fluid motion animation, specifically with Maya Bifrost effects. I will apply the techniques I learn to create scenes of daily moments involving liquid.**

- A viscous liquid could be a scene of hand soap exiting the bottle.
- Glaze on mochi doughnut
- Honey being dropped into a mug of tea

With this idea, I would want to work on environment modeling so that coherently each scene appears as realistic as possible - somewhat like advertising. I will learn more skills in Maya, potentially how to apply different material to a Bifrost liquid, as well as Adobe Substance Painter - importing new environments.

➤ Alternatively, if I wanted more of a story, I could use these techniques to create a rainy-day-at-home short animation. This involves:

- Wastewater gushing out of pipes, outdoors
- Raindrops coalescing on a window
- Character holding mug of tea
 - Honey stirred into tea
- Indoor environment (coffee table by window, cushions, carpet)
- Donut/dessert with glaze

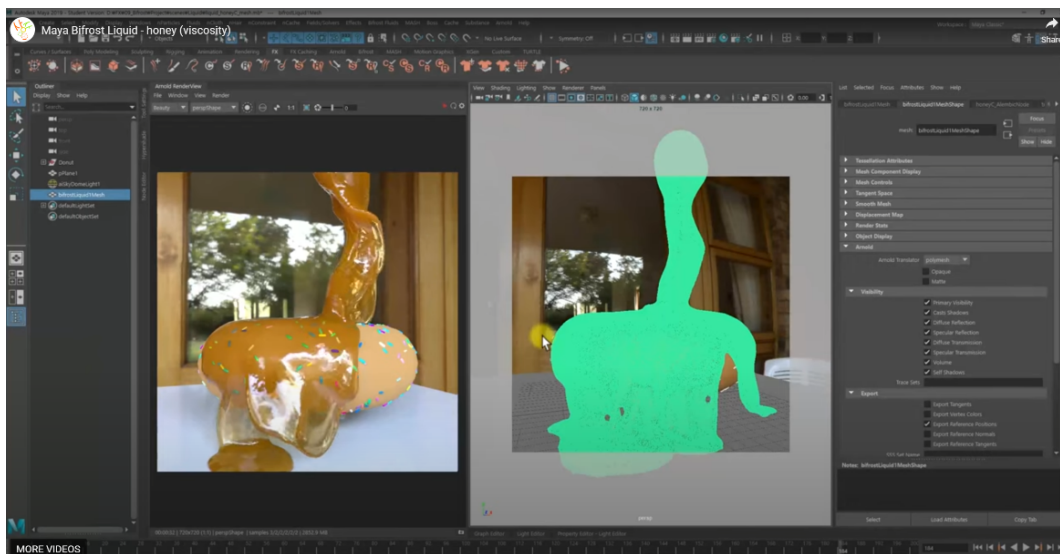
➤ Another alternative option: if I could figure out how to make standing water move whenever, I could make several simulations of tsunamis and cityscapes, to show more of a scientific simulation.

2. How is this project a new challenge (a risk) for you? If you are in a group, define each of your roles and explain how each role will be a new challenge/risk for you. Also, how will you hold one another accountable for your roles? **Note: *To encourage and reward you for your risk taking, your process will be worth more of your overall grade than the completed project.***

➤ This Zenith project is a new challenge for me because I would learn how to create personalities of water that are wildly different from one another. Bifrost is entirely new to me, and if I could teach myself how to create different and convincing water effects from tutorials, I'd be super happy.

3. How will you incorporate your production class skills (new or existing) into your Project?

➤ Previously in Animation, I've learned how to create models, sculpt them to add detail, and use Zplugin to make the model low-poly and unwrap UV. I will apply these skills as I create props for my environment / scenes. I've also learned to create moving orthographic camera views in Maya and how to set keyframes to create animation of objects. These will be helpful as I decide how to display the scenes I make.



- Fluid simulations (?):

- <https://www.youtube.com/watch?v=i4KWiq3guRU> - Cool but doesn't show me how to make it. Shows what is possible.
- <https://www.youtube.com/watch?v=95bUIduDvgc>
- <https://forums.autodesk.com/t5/maya-forum/bifrost-water-goes-through-collider/td-p/8070956>
- Funnel and motion field: <https://www.youtube.com/watch?v=iyOdhX2nveE>

Links from 4/17:

- [▶ Waterfall Scene Liquid Simulation Animation with Bifrost](#)
- [▶ Create Waves using Bifrost in Maya 2022: Basic](#)
- [▶ Creating an accelerated liquid simulation using Bifrost \(Maya 2015\)](#)
- Grass model to download: <https://www.cgtrader.com/items/4119934/download-page>
- <https://forums.autodesk.com/t5/maya-dynamics/bifrost-squirting-water-up/td-p/5480727>

Problems to learn to solve:

- Liquid won't "touch" colliders as in realistically; how do I decrease the distance between them?
- What do *time step* and *transport step* functions do?
- How do I permanently hide the emitter in render view?
 - ◆ Make it transparent-colored
- How do I assign material to a Bifrost liquid? Do I have to export meshes and reimport like I saw on that video?
 - ◆ Can assign different colors using Blinn shader
- Frame Range is disabled when I try to render through Arnold...how to render the sequence?

Resources on Emission Attributes:

- <https://help.autodesk.com/view/MAYAUL/2023/ENU/?guid=GUID-F7756120-0C0B-4FA6-8341-20F183A85758>

Zenith AE File Fonts:

- "Epistolar" for my name and for 'bifrost liquids in maya'
- "Boston Inline" for 'Senior Zenith'