

Project Proposal

Candidate Name	Rob Laatz
Pathway	3D Generalist
Project Title	Nyoom
Project Concept	



This project would primarily begin with a specialism in 3D vehicle design and modelling, and will hopefully expand into UE lighting/scene setup, then finally into blueprints to add some functionality and pazazz. The focus of unit 12 will be a detailed jumpship/starship produced to a professional standard (or however close I can get), in which I'll explore silhouettes and language conveyed through shapes and colours. Once I am satisfied with the object itself in 3ds Max, I will move into Substance Painter to bake the HP to a LP mesh and texture the item in 4k resolution smart materials. In the meantime, I will experiment with the blockout and scale of the scene inside of UE, and learn how to create a custom skybox using HDRIs. Once I'm satisfied with both the texturing and the blockout, assets will start to be imported as and when needed; this process may involve some back and forth work if bugs/errors/artifacts arise. Next, I'll focus on visual effects, particle systems, and blueprints that allow me to add jet fire, head lights, and the like depending on which final design I settle on. Personally, I doubt I'll have much extra time on top of this, but I would like to add some customizable options and some UI that allows the player to play with paint colours and patterns.

To be more specific, I plan to include the following assets:

- A jumpship
- A custom skybox
- A custom HDRI
- Large spheres for the skybox & planets
- Some asteroids
- VFX: Jet fire, headlights, etc.
- Textures for custom planets

Process



Compared to units 9-10, I plan to use a far more linear and simplistic workflow. As the Google slides and unit brief suggest, I will begin with generating some ideas. At first, I'll start on paper to explore ship silhouettes; here I'll try to get as many poor designs out as possible before moving into a digital format. Once I've narrowed the range down to a select few shapes, I'll move into creating side profiles that suit the initial sketches. This small handful of sketches will then be developed with a large range of patterns and colour schemes. Once I'm satisfied with a sturdy design, I'll move onto blocking it out inside of Autodesk's 3Ds Max or Maya - while also considering a fluent HP to LP pipeline. At the same time, I'll experiment with scale inside of UE, making sure the planets I choose to display are at the right sort of perspectives I'm trying to achieve. At this time, I'll need to document my thoughts on the transition between planets. From here, I need to begin texturing the model itself, making sure to consider masks for future customization - I may need to retreat back to my chosen modelling package to play around with material IDs. By the time the vehicle is modelled and textured, I would have already done my research on creating custom skyboxes and HDRIs. Once I'm satisfied with both the texturing and the blockout, assets will start to be imported as and when needed; this process may involve some back and forth work if bugs/errors/artifacts arise. Next, I'll focus on visual effects, particle systems, and blueprints that allow me to add jet fire, head lights, and the like depending on which final design I settle on. Personally, I doubt I'll have much extra time on top of this, but I would like to add some customizable options and some UI that allows the player to play with paint colours and patterns.

Presentation

I plan to upload the finished low-poly version of the jumpship/starship to Sketchfab.com as part of the portfolio presentation section to unit 11. However, I will be utilising Marmoset Toolbag 3 when creating beauty renders of the high poly mesh - using a simple, white and metallic material should divert the focus of the viewer to the ship's design. In addition, I'll include both screenshots of the environment and an audio-less, unlisted YouTube video to showcase the animations and visual effects I choose for the transitions. However, if this plan falls through, and I'm forced to take plan B - the customization route - I'll make sure to insert screenshots of the best design combinations available, and a GIF or unlisted video as proof of functionality.