

Reflection

Itch.io link to prototype: <https://adecazenove.itch.io/ue5-learning-project>

Youtube link to playthrough of level: <https://youtu.be/Yv7BIVOxI0c>

Youtube link to mechanics implementation walkthrough: <https://youtu.be/kozkY0LMJzw>

For this project, I set out to learn the basics of Unreal Engine 5 (UE5) by implementing a third-person platformer mechanic and level blockout. These tasks represent the basic tasks I want to be able to perform in a game engine as a game designer to provide value to the project.

Developing the mechanics was the first task that I focused on since the level design would be dependent on that. I followed the Double Diamond framework to help guide me throughout this project. This helped structure my approach by encouraging me to take the steps in the right order, such as researching learning resources for UE5's blueprint system and defining and ideating some ideas.

Having taken these steps set myself up pretty well to start implementing my dash idea. The process of implementing this idea involved finding a tutorial that gave the foundation of the system, and then adjusting and changing that system to fit my vision of the idea.

While copying some YouTube videos to implement the dash felt like it wouldn't teach me anything, I found that it allowed me to understand the thought process behind the node-based programming system. This video introduced me to nodes I would have spent a lot longer finding out about if I had tried to implement this idea all on my own. I think in general, when learning a new software, following a simple tutorial can teach a lot about the possibilities and the workflow.

On the other hand, something that went less well was the amount of time it took to implement this dash mechanic, as well as the other mechanics. My initial expectations were that it would be very quick to implement the dash mechanic, since I had experience with a game engine already (Unity), and that the dash mechanic was very simple. I did not realise how much time is lost in getting stuck and looking for solutions, which led to the dash mechanic taking much longer to implement the way I had it in mind than expected. While the additional mechanics were not expected, they felt necessary to make an interesting level afterwards. Ultimately, these mechanics did not take much additional time to implement since by then I had a good understanding of the blueprints system.

This additional time ultimately meant I had less time to work on the level design. While I was still able to create something I'm happy about, I was not able to take the time to brainstorm a variety of ideas and to polish the level afterwards.

I think in the future, I need to respect the additional time it takes to learn new software, even if the project seems very simple. To avoid too much unpredictability, it could also be beneficial to follow a beginner tutorial project. Since the duration is already set, it could make for a more predictable duration while also exposing more features of the software.

Overall, I was able to complete both learning outcomes I had set out to complete. Working on implementing the game mechanic and level blockout taught a lot about Unreal Engine 5 and has made me, while still a beginner, more comfortable with the game engine. From this foundation, I feel like I could comfortably expand on my knowledge if the need arises.

My plans after graduating are to first update my website portfolio, and then look for a job in the gaming industry or the gamification industry. Thanks to this experience, I hope to be able to have a better chance at applying for jobs which require some Unreal Engine 5 experience.

Time Sheet

Task (Includes documentation)	Time (Hours)
Researching and analysing existing third-person platformers	10
Researching educational resources for UE5	6
Defining requirements for game mechanics and levels	6
Ideation process for game mechanics	10
Prototyping game mechanics (including learning to navigate the engine)	30
Designing and implementing level	20