

CMSC 388G Virtual Reality Game Development

Programming Assignment 2:

- Due Date: 11:59 PM, March 15th, 2019

Project Submission:

- 1) Move all of your custom cpp classes, headers and map files into a new folder.
- 2) Name your folder "INSERTFULLNAME_CMSC388G_Project2.zip" and make a README.md file where you will put your answers to the questions. Only one person in your group needs to do this.
- 3) Place all files for the project in the folder and ZIP up the folder. You will submit your project via the submit server. To submit a zip file, login to the submit server webpage and look for the link to make a *web submission*.

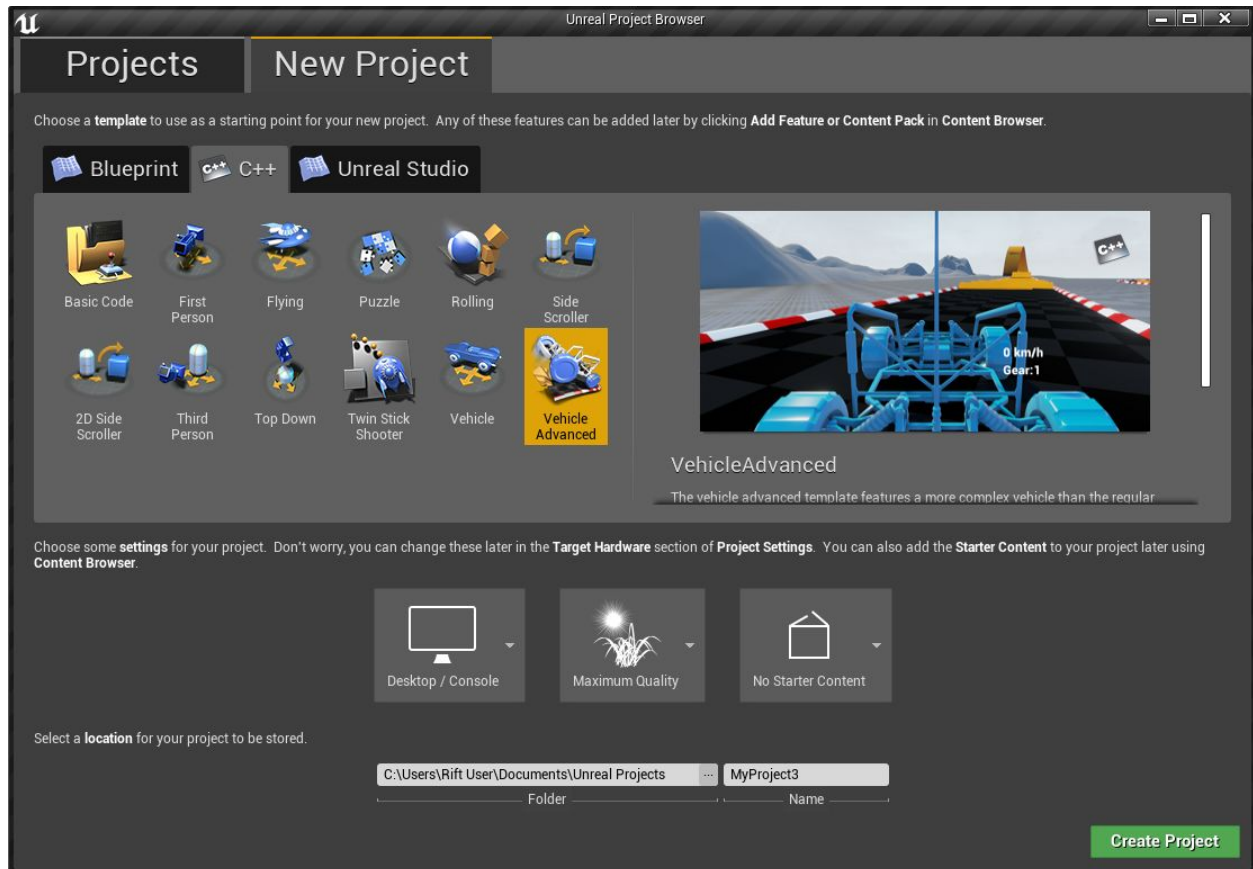
Project Description

The purpose of this assignment is to apply at least one simulation sickness reduction technique other than avoidance. The project you make is up to you, but it must not rely on teleportation. You must develop a game mechanic using some form of locomotion and apply a reduction technique we discussed in class.

You may use one of the UE4 template projects as a base for movement mechanics like the **teleporting project we did in the first class (you could build off of your first project)** or the **advanced vehicle project**.

As a reminder, you can find the projects through this process:

1. Opening up the Epic Games Launcher and clicking the **Yellow Launch Button**
2. Going to the **New Project** tab
3. Going to **C++** -> *Choose Your Wanted Project*
4. Save the project somewhere on your machine and load it.



The more you can avoid the main source of discomfort (such as player rotations, acceleration, horizon angle changes etc.) without actually removing the movement mechanic itself, the better.

- Snapping Rotations
- Rotating Environment
- "Jump" Teleportation
- Accelerating Environment
- Lateral-Moving Environment
- Dynamic FOV Manipulation
- Forward-Moving Environment
- Horizon angle stabilization

NOTE: You must implement two of the above techniques in C++. If you are doing something in blueprints, let the instructors know and we will determine if it is reasonable to do so. I.E. - You are making a custom material or something similar.

You may work in a group of two people.

Grading

Full credit will be awarded if you implement two or more techniques. One of them must be from the list in the description. Both can be from the list, but you can also be given credit for a technique you have made yourself. Let the instructors know if you plan on using your own technique.

All code that you write should be well commented. Your code is judged subjectively based on the simplicity and clarity of implementation. An implementation that is easy to understand, but has few minor bugs will be scored higher than a messy implementation with the same number of minor bugs.

Markdown

While you won't really be graded on code comments and markdown style, it is important to make the Markdown readable when answering the questions.

<https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet>