

# Andreas Nordbø

3D Game Design - Noroff Stavanger 2017

Game Characters (GAC)



## Links and info:

Link to gameplay video:

<https://www.youtube.com/watch?v=utzKiQMN6WI>

Blogpost for this project:

<http://andreasgamedesign.com/game-characters/>

My blog:

<http://andreasgamedesign.com/>

Unreal Engine version:

4.14.2

Reflection on next page!

## Reflection:

This assignment that had a span over two weeks is called Game Characters (GAC) which required me as a student to setup an animation system for locomotion, jump cycle and minimum one body action. The tools I am tasked to utilize to achieve this result is finite state machines and blend spaces inside Unreal Engine 4. I was not required to make the character or the animation myself, so I used Adobe Fuse to quickly make a character and Mixamo website to acquire the animation needed. The main goal of this assignment was to set up Animation Blueprints, State Machines and Animation Blendspaces from scratch.

I started the production of this project by making a generic male character in Fuse, which I then uploaded to the Mixamo website. From there onward I found the animations I needed (idle, walk, run, jumps etc.) which were required by the assignment. The good thing about Mixamo is that it auto rigs and skins the character, this saved me a lot of time. When I had all the FBX(es) in a folder that I needed, I started importing them into UE4, a fast and simple process. After doing this I made a Animation Blueprint to control the different states of animation using finite state machines. Here I also used blueprint nodes to work off different Booleans (like isJumping, isPunching, isCrouching etc.) and variables like speed to achieve my locomotion, jump cycle systems etc.

I decided to add punch to my animations as a body animation (required by assignment), it was very simple to get this working. I decided to make the character immovable while he is punching so I did not have to animate the feet while punching. At the end of implementing this animation I also added two sphere collisions to each of the hands that activates collision feedback while punching, this way the character can punch/knock back stuff in the level that has active physics simulation. I also added crouch by pressing the "C" key, which was listed as a extra challenge for this project. In the end I also ended up adding a HUD that displays the different controls for the player.

All in all, I think this assignment was pretty easy to complete. I did a lot of work early on, which gave me a decent amount of time to fine tune stuff to my liking in the end. If I were to go back and change anything it would have to be to improve on the jumping up from ground animation. It would also be cool to use one of my own characters as suggested by the extra challenge part of this project. To further improve I could also add more animations.