CG

CGP600 – AE2 Individual project

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# Introduction

In this report I will go into detail about the project I created in C++ with DirectX 11 for advanced games programming.

# Design

## Collision

For my collision implementation I didn’t want to just have spherical colliders as this would result in a very clunky game if I had custom models. Instead I’ve gone for a joint Axis Aligned Boundary Box and Spherical collision. This allows me to have some freedom as to what type of collider I want for each model. While searching for some Sphere to Box collision, I came across a paper about a selection of “faster sphere-AABB and sphere-OBB overlap tests improving on Arvo’s original method” (Larsson, Akenine-Möller and Lengyel 2005). I decided to have a go at adding in their proposed algorithm into my program.

# References

LARSSON, T., AKENINE-MÖLLER, T. and LENGYEL, E., 2005. *On Faster Sphere-Box Overlap Testing.*[viewed 29/12/2018]. Available from: <https://pdfs.semanticscholar.org/ede0/ef718fc599b9af6ca909db3696c9e87f7192.pdf>