My plan for the project is to make a windmill in blender and import that to opengl. I will have the base rotate around the y, the pole on the base rotate around the y, and the axle follow the base while the blades follow the axle and rotate around the x-axis.

I have been working on the project and managed to get a custom skycube textured from Minecraft screenshots, a working camera has been implemented, and the windmill has been loaded to the program with an animated hierarchy implemented. The base and pole work correctly. But the axle and windmill blades rotate around a point that is not supposed to exist I think as I have changed all origin points in blender to be at the base of the blades and in the middle of the axle. I have worked on the rotations for only the blades and axle for 17 hours now and am still unable to get them to work as such I have ran out of time to get lighting implemented. Total time on this project is approaching 30 hours and I have learned many things such as making bmp’s and parts of how to rotate but also the frustration of trying to work with this stuff.