

# Final Project Proposal: Bank Tanks 3D

**Team Members:** Jonathan Sumner Evans, Easton Bornemeier, Eric Olson

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Our project is a tank battle game. The goal of the game will be to destroy all AI enemy tanks in each level to advance utilizing the main game component of bouncing bullets off walls to hit unknowing enemies. The tanks and missiles will be animated to enhance the realism of the gameplay. Our project will utilize textures for the ground, scenery, and tanks. We will use the Phong model for lighting.

Bank Tanks 3D will use a shader program particle system to draw the track-prints of the tanks. It will fade out the track-prints after a constant amount of time. We may also utilize different lighting techniques depending on the different environments the tanks may be placed in during gameplay.

We want to make our game as extensible and configurable as possible. As such, we will use configuration files for the levels and storing game constants such as default speeds.

One of the major challenges we anticipate is dealing with off-axis collisions in three dimensions. We plan to model our tanks and walls as rectangular prisms and our projectiles as spheres, but we anticipate that this is easier said than done.