Tank Game

Tank game is going to be a game where you control your own tank and fight against other tanks. Important aspects of combat are going to be: cover, part damage and ammunition type. The game takes place in modern times, although the fights needn’t to be historic or even feasible. It will also be possible to leave behind your tank and get another from your main base. It will also be possible to choose other vehicle types such as jeeps, motorcycles and helicopters.

Rules

The main game is a skirmish between two or more players, some (or all?) of which can be played by an AI. The game, in this mode, ends when all but one player is defeated.

Player Life

Each player has an avatar, a generic soldier 3D model that, at the beginning of the game, is nested inside the tank. In order to be defeated, a player’s avatar must be destroyed. As long as he is alive, the player can run around the field and try to find a new tank (or another vehicle), should his old one be destroyed.

The avatar is rather fragile, especially against the kind of vehicle mounted weapons the game normally has, and will usually die with one or two shots.

Tank Combat

Tanks will usually be fitted with a large caliber gun, which can be used at a long range (up to a couple of miles), at which there will be an accentuated arcing effect, due gravity. These projectiles are capable of heavy damage when well used, but this depends also on the hit location. Different parts of the tanks have different armor and subsystems that can be damaged.

Armor

Armor is defined by their material and thickness. Based on these, the ammo type and the shot angle, we should be able to determine for each hitting shot whether it penetrates, gets stuck in the armor, ricochets, etc. Even if the shot penetrates the armor, thick armor will take away from its kinetic power. As armor gets damaged, it is possible for it to fall off, or to let in concussive explosions (which will then damage the submodules the armor would have protected).

Guns

Our main concern is with main tank guns, that is, the high caliber guns main tanks are usually equipped with used to fight, among other things, other tanks. Such guns frequently have a variety of specialized ammunition, such as armor piercing rounds, explosive rounds, heat rounds, obstacle reduction, etc.

Movement

Tanks move and turn by using twin threads. These threads have “shovels” inbuilt in every section used in order to gain traction even in slippery terrain. The game should consider the effect different types of terrain will have on the tank. Very thick and deep mud, for instance, can end up immobilizing the tank. Traversing slippery terrain could turn the tank the wrong direction, etc.

Subsystems

Tanks have several subsystems which work together to keep it working. Each subsystem in the game can be separately damaged and they have different effects on the player once damaged. Such subsystems include:

Fuel: The fuel tank and its transport system to the engine. Damaged fuel systems may drain away part or all of the player’s fuel, may cause continuous fuels loss and may drench the tank in flammable fuel.

Electronics: The electric system of the tank, responsible not only for starting the engine but also keeping electric parts of its weapons in working condition. Advanced weapons will usually still be triggerable mechanically if electricity is missing, but without any visual assistance.

Hydraulics: I am not too sure how this subsystem affects the tank, but I am pretty sure it will be immobilized if it is damaged.

Ammo Supply: Damage to the ammo supply of the tank can be quite catastrophic to those inside the tank.

Threads and Wheels: The movement system of the tank.

Game Modes

The basic game will consist in a death match. Other game modes, such as capturing bases, or accomplishing some other basic objective, could also be used.

Obstacles

Obstacles

Continuation