Tank Battle City

JO2 Programmer Contest

Introduction

Tank Battle is a programming game, where the goal is to develop a robot battle tank to battle against other tank in C++. The player is the programmer of the robot, who will have no direct influence on the game. Instead, the player must write the AI of the robot telling it how to behave and react on events occurring in the battle arena.

Gameplay

◇ There are 2 players in 1 battle
◇ 2 players will play versus at given map/battlefield
◇ The final battlefield layout will be revealed when the battle started
◇ A battle will take 10 minutes
◇ Player will shoot and destroy the enemy tank and base

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Technical Info

◇ Game will be simple client-server based using socket
◇ Map will contain base, wall, power ups, and tanks position
◇ Player will code their logic on their own computer and run their code from their PC
◇ Server will show the battle with graphical interface

Your tasks

Create an AI that able to perform path finding and decision making

Decision making is important here in to choose whether to defend your base or attack enemy base

Gameplay Rules

◇ Tank can shoot other tank
◇ Tank cannot overlap other tank
◇ Tank cannot go through wall
◇ Tank can shot and destroy destructible wall (red wall)
◇ Player will be lost if not performing any command to server for more than 10 second.

Code Rules

◇ Use C++ as the AI logic!
You can use pure C++ and rewrite the client helper class or use the helper class combined with JNI
*Client helper class: a class to help connect to server
◇ Original code

Components of the game

- ◇ **Battle field:** The map that user use for battle
- ◇ **Tank:** Tanks that represent the player which controlled by user AI
- ◇ **Base:** Symbolized as Garuda, the player base that need to protect/destroy

Battle Field

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GAMELOFT
TANK BATTLE
CITY

PLAY

RESET

Battle result conditions

◇ Win
- If able to destroy opponent base and tank, then game ended
- If able to destroy opponent tank OR base, then time up

◇ Draw
- If no one destroy opponent tank and base

◇ Lost
- If not win

Tanks ☺

Any question before somebody shoot your ass?