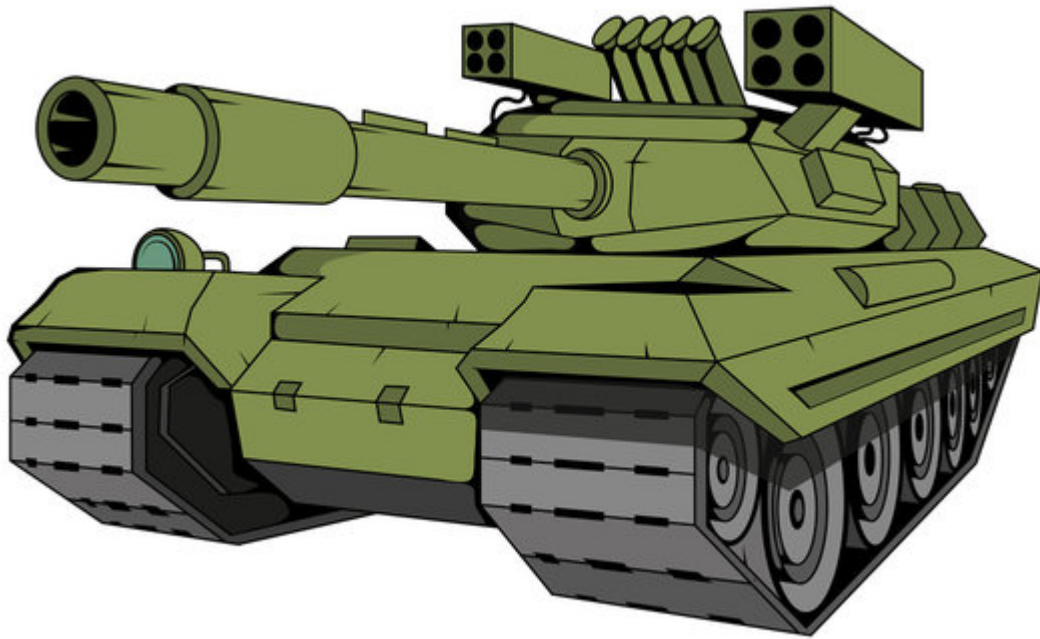


Arthur Nordström
Lukas Lundblad
Therese Larsson

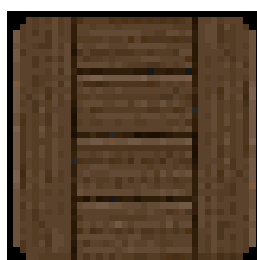
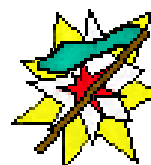
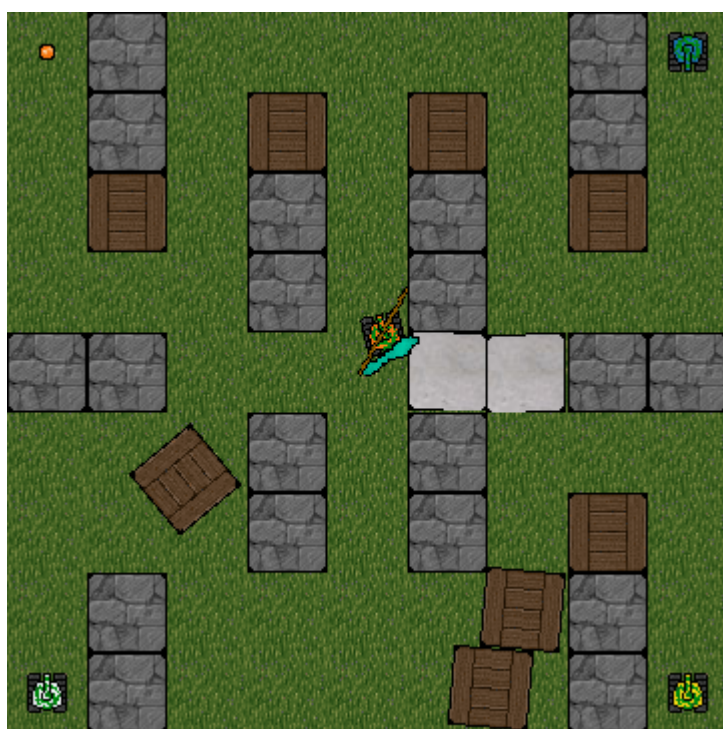
User manual

Capture the flag



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Game description

This is a game where the goal is to capture a flag and bring it back to your home base with the tank which you're controlling. You will encounter AI controlled tanks in a battle of the flag which is situated in the middle of the maze-like map.

Game setup

In order to play capture the flag you need to download python3 and run the following commands in the terminal:

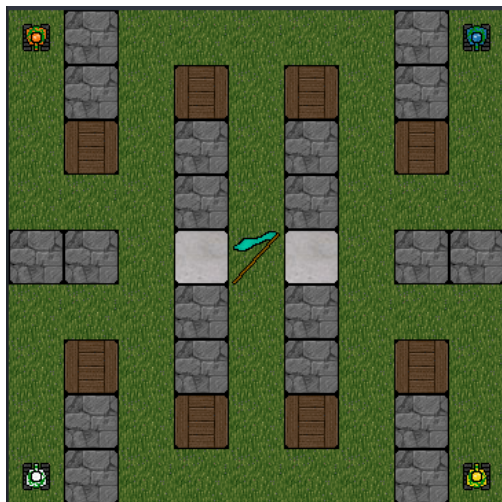
- source setup.sh
- python3 ctf.py

Use the arrows and enter to select game mode and map, to quit game press escape or choose exit on the welcome screen. If you regret your game mode, to go back press escape.

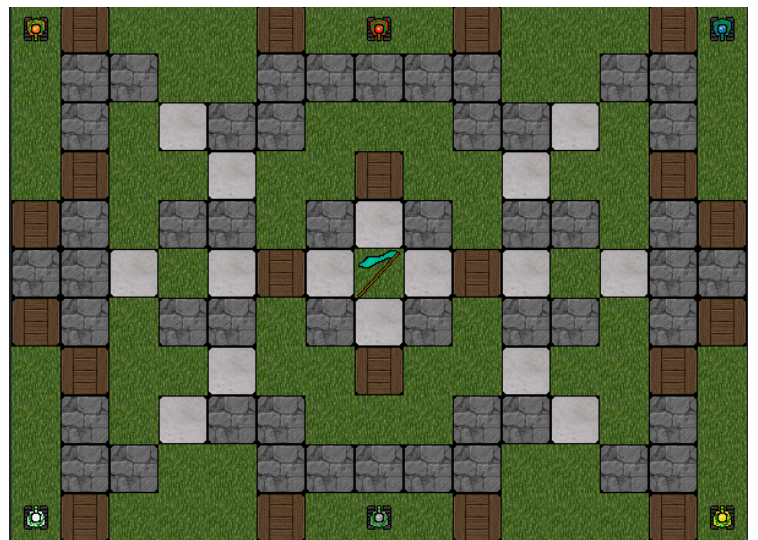
Maps

There are four different maps to choose from:

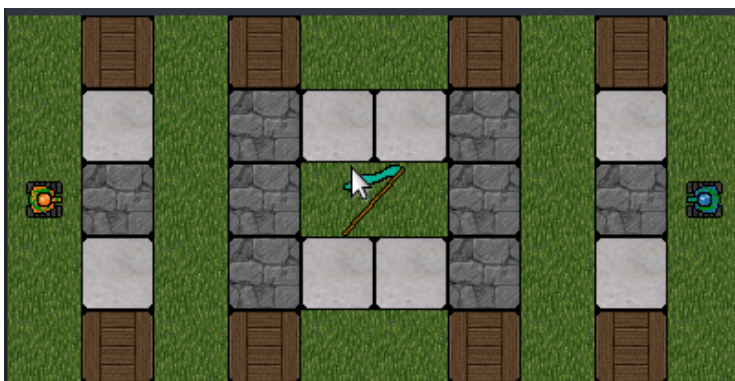
Map1



Map2



Map3



Map4



Controls

Player 1

Player 2

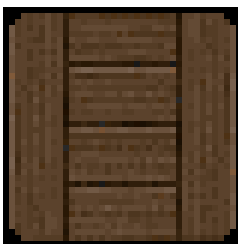
Function	Key	Function	Key
Accelerate	Arrow up	Accelerate	w
Decelerate	Arrow down	Decelerate	s
Turn right	Right arrow	Turn right	d
Turn left	Left arrow	Turn left	a
Shoot	Spacebar	Shoot	q
Exit game	Escape	Exit game	Escape
Show score	TAB	Show score	TAB

Gameplay & gameobjects

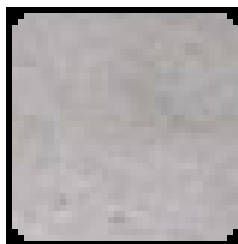
In both gamemodes player 1 will control the orange tank, in multiplayer player 2 will control the blue tank. Your tank will begin with 2 health points, and by shooting an enemy tank their health will be reduced, and vice versa. When a tank's health is reduced to zero, it will get transported back to its base and its health points will get restored. There is a 3 second respawn delay and 5 second respawn protection, to prevent the tanks from being killed directly when they respawn. In order to win you have to avoid getting shot while trying to capture the flag and bring it back to your base. To grab the flag you have to move your tank to the flag, when you are close enough to the flag the tank will automatically grab it. If a tank gets killed while holding the flag, the flag will be dropped on the position where the tank was killed.

There are three different types of boxes: wood, metal and stone. Wood boxes are both destructible and movable, metal boxes are movable but not destructible. Stone boxes are neither movable nor destructible.

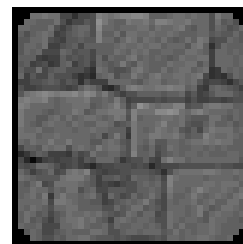
Wood



Metal



Stone



There are a few different classes in the gameobjects file: tank, box, bullet, flag, explosion and minor explosion. These classes create the objects and handle the different attributes of

each object. The class Ai is found in the ai file and handles everything to do with the ai tanks.

Game files

Ctf - this is the main file to run the game, it is here we call upon all of the other files

Gameobjects - this file contains all the information in order to create the objects of the game, such as tanks, boxes and bullets.

Ai - the Ai file implements very basic Ai controlling

Maps - contains all of the different maps you can play, with starting points for tanks and the flag.

Images - contains all of the images needed for the display

Menu - creates the starting screen and makes it possible to choose game mode and map

Sounds - contains sounds for each action

Game features

Menu - a game menu, here is where you choose preferred game mode and map.

Multiplayer - you are able to choose between playing alone or together with a friend.

Explosions - every time an object gets destroyed, an explosion will occur for a few seconds, when a bullet hits an indestructible object a cloud of dust appears.

Sounds - when a tank gets hit, retrieves the flag, shoots or destroys a woodbox a sound will get played.

Delay - when a tank gets killed it takes a few seconds to respawn, and when respawned is unable to get hit by a bullet for a few seconds

Hit points - in order to get respawned it requires you to get hit twice.

Recoil - when you shoot your tank moves backwards.

Score screen, counting score - to keep track of the score, a player can hold TAB to see each players' score. When a tank gets a point, the score gets printed in the terminal.