

Tanks'n'mazes

Game Design

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Marketing

Genre

Tanks'n'mazes belongs to a genre of top-down shooter where player is confronted with computer-controlled enemies.

Target audience

Tanks'n'mazes will appeal to male gamers of age 5-12 who typically plays casual games and male gamers of age 12+ who like tank games and RT tactics. Game will not contain blood or scenes of explicit violence so it will be suitable for players of the most of ages.

Platform

Tanks'n'mazes will be developed at early stage for PC only, but can be easily ported on most platforms (for example, on mobiles with touchscreen or tablets).

Competitors

Ballistic Tanks

Ballistic tanks is top-down tank shooter which has solo and co-op arcade mode, 4-player local multiplayer.



Main features:

- Over 50 different pre-made maps
- Multiple power-ups
- Various competitive game modes: *Deathmatch*, *Juggernaut*, *Powershift* (random gameplay modifiers), *Arcade* (solo or co-op against countless computer-controlled enemies) and *Airstrike* (planes and homing missiles)
- 4 controllers and keyboard support

Game has a simplistic graphics and creating an action gameplay feeling. Some maps have destroyable objects. Platform is PC; game is selling on Steam.

Awesome Tanks

Awesome Tanks is top-down 2D tank shooter which has solo player vs. computer mode only. Gameplay is focused around resource farming and tank upgrade.



There is also a donation system which can be used for buying additional resources for further upgrades. Also players can make and share their own levels. For tank controls keyboard and touchscreen can be used.

Game has a simplistic 2D graphics. Supported platforms: Android, iOS.

Selling point

- While Tanks'n'mazes is a real-time game, it has a feeling of step-by-step tactics game.
- Controls are very easy; only 1 finger is needed so even a small child can play this.

Future plans

- More different enemies
- Destructable environment
- Several AI behaviour for one enemy type so player can't exploit AI flaws so easy
- Power-ups
- More game modes
- Game mode modifiers
- Tank upgrade system (on early stage can work as permanent power-ups)
- Add a multiplayer
- Map designer

The Introduction

High concept

Tanks'n'mazes is top-down minimalistic tank shooter where you are controlling a tank and trying to survive in the maze filled with enemy tanks.

Summary overview

Player is controlling a tank placed on a bounded maze-like game level. Goal is to kill enemy tanks and stay alive, while they are trying to find and kill you. For reaching the goal player needs to move his tank and shoot enemies. Tank control in the game consists of two phases: moving and shooting. At first you must to click some point on the level. Tank will begin to move to this point. While tank's moving, you can shoot once. After shoot you need to wait until tank will finish the movement. After this you can set a new destination point and game loop continues until there's only one player left on the level.

Key features

- One-finger controls
- Combined real-time and step-by-step game mechanics.

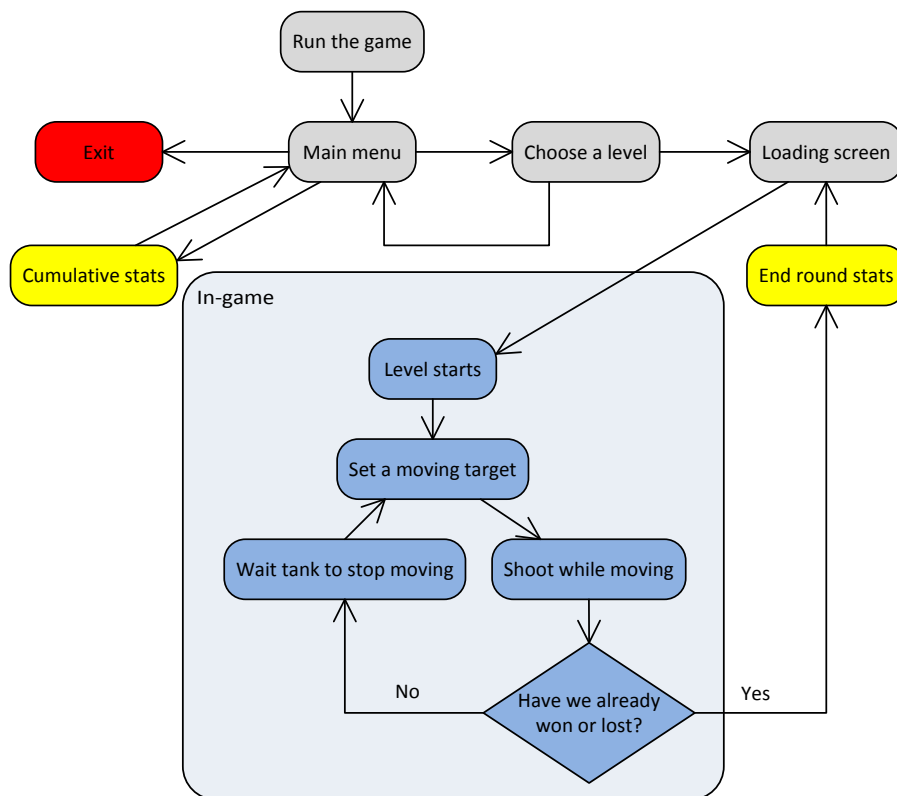
Gameplay

First minute

After the title screen the player will see a main menu where he can start a game, see a cumulative stats or exit game. In case of stats option selecting, a cumulative through current session stats will be shown. After selecting a start a game option, a list of available levels will appear. After selecting a level a loading screen will be shown to player. When all the preparations are done a level with player and enemy tanks will be displayed. In top left screen corner a score meter will be shown. Initial score is 500 and every second it will drop by 1. When player kills an enemy then 50 points are added to score. If all enemies are eliminated, player stats will be shown such as accuracy, time spend, enemies killed, etc. Also an option “Back to main menu” will appear.

Gameflow

Game flow is shown on the diagram below.



Controls

As all activities in game will be done through mouse left-button click, further diagrams seems to be unnecessary.

Victory Conditions

To win the stage player must to kill all the enemies and stay alive. After passing a stage player can choose another one.

Number of players

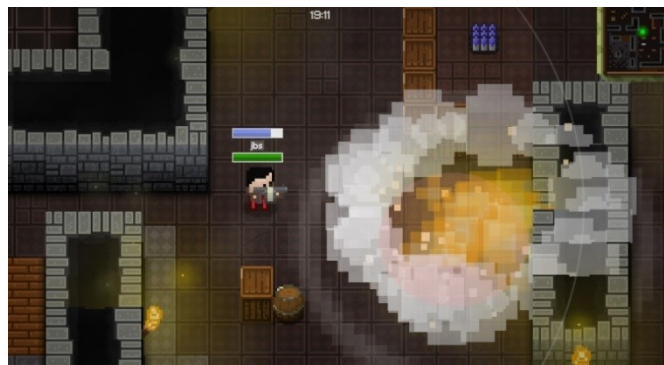
There will be only one player which confronts with several computer-controlled enemies.

Art

Graphics

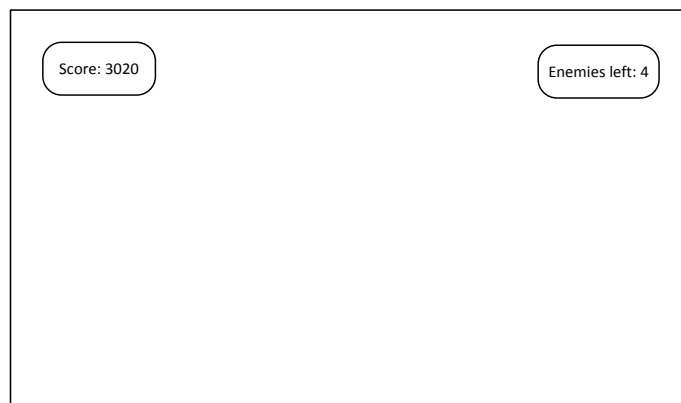
Game will be implemented in minimalistic 2D style.

Mood board:



HUDs

HUDs will be simplistic. In the top left corner will be a score bar and in the top right corner will be an enemies left counter.



Sounds

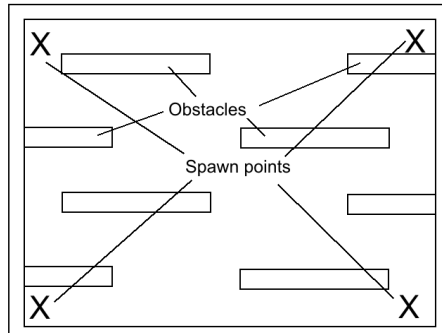
Game will have sounds for shooting, projectile hitting, tank destroying, tank moving, tank stopping when target or barrier reached etc. For sound implementation Unity engine will be used.

Game world

Level design

Each level will be an enclosed rectangular arena which has placed in different places (but in general in symmetric fashion). In four corners of the level a spawn points will be placed.

Example of the level:



Enemies

Dumb Tank

Dumb Tank is an enemy which looks like a player controlled tank but is painted blue. Enemy tank picks random targets to move and shoots in random directions. Possible appearance or Dumb tank is shown on the next image:



Dumb Turret

Dumb Turret is mostly like a dumb tank, but non mobile. It will periodically shot in random directions. Visually it will be different from tank due to no need in caterpillars (as it has static position). Possible appearance or Dumb turret is shown on the next image:



Regular tank

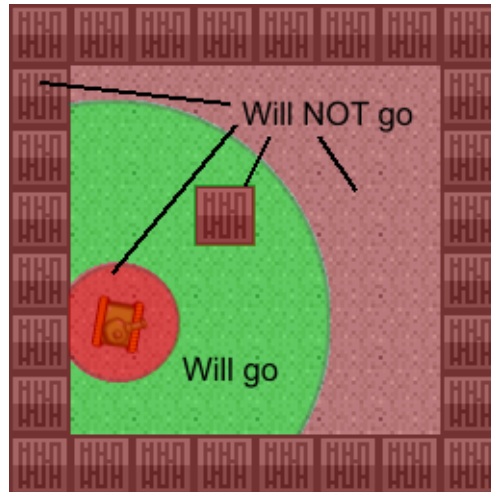
Regular tank looks like a dumb tank, but is painted green. It will try to find a player and shoot him. Regular tank will not try to dodge player shots. Both movement and shooting will be done with reasonable but not absolute precision, so player has possibility to compete with enemy. Possible appearance or Regular tank is shown on the next image:



Game mechanics

Player moving

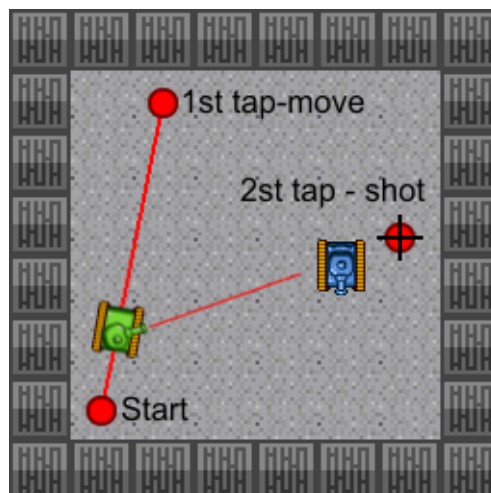
Player clicks on some reachable point on the level which is located between some minimum and maximum radius relatively tank as it's shown on a next picture:



Tank begins to moving towards destination point until reaches it or some barrier on the level. If a point out-of allowed range is chosen, then tanks will ignore it and will wait player to pick a correct destination.

Player shooting

While tank is moving player clicks on the target point and tank shoots a projectile which moves in the direction of point selected. When projectile hits anything, it disappears. If projectile hits an enemy, he dies. When projectile reaches picked by player point, it continues to move.



Technical Aspects Section

As game will be developed on the Unity engine and will not be in any way complicated, the minimal system requirements will be same as for engine itself:

- OS: Windows 7 SP1 or newer.
- Graphics card with DX10 support (shaders v4.0).
- CPU: any with SSE2 instruction set support.