



Game Description

1DV437 Introduction to Game Development

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Soldiers VS Robots

The game's name is Soldiers VS Robots. In the game, the player controls a soldier in fulfilling different missions (2 missions are to be implemented in this release). The player steers the soldier in the mission scenario where the soldier needs to find and secure a crystal guarded by robots. The robots are spread around the game world in different positions and can shoot lasers at the soldier and the soldier can shoot bullets at the robots. The crystal is guarded by a "boss" robot.

Game Objective

The player goal is to complete the mission selected with the highest score possible within a time limit. To complete the mission the player needs to retrieve a crystal by going around the game world and locating it and destroying robots that try to stop the player and destroy him by shooting lasers. The player is awarded points from destroying robots as well as by securing the crystal. The game is over when the crystal is retrieved, time is over and/or when the player is destroyed by the robots.

Feature List

Game Menus and Pages:

Start Page:

- The main menu gives the selection to start a new game, choose settings, view rankings and quit the game.

Settings Menu:

- The player is able to change the sound settings by controlling the volume.
- The player is able to change the resolution of the game. ("1280x720", "1366x768", "1920x1080", "3840x2160")

- The player is able to change if the game is played in full screen or not.
- Rankings Menu:
- The player is able to view the past score.
- Scenario Selection Page:
- The player is able to choose which mission to play.
- Game preparation page:
- The player is able to select the difficulty level(Easy, Normal, Hard).
 - The player is able to enter a game name that he/she wants to play with.
 - The player is able to view the control information about how to play the game.
- Game Over page:
- The player is able to view their score.
 - The player is able to navigate back to the main page, play again(scenario selection) or quit the game.
- General rules:
- The player is able to navigate back to the previous page and/or to the game start page from any page.
 - When the player selects a mission the game world is loaded and the game starts once the game is over the Game-Over page is displayed.

Game Sound:

- Background music is played when navigating through the menu pages.
- Game background music is played while in-game mode.
- Sound effects are played when the player inflicts and receives damage.

Camera:

- The camera follows the player from above-displaying part of the game world.

Game World:

- The world is a simple 2D tilemap based rectangular(Including but not limited to roads, gardens, town squares...).
- There are two missions available for the player to select from.
- The player is limited to move within the world.

While in-game mode on top of the screen the player can see:

- Left Side: Health bar(player) and score
- Right Side: Exit menu
- Center: Game Timer

Player/Soldier:

- The player has 5 minutes to complete the mission. (maybe subject to change)
- The soldier can move top, down, left and right.
- The soldier can move slightly faster than the robots.
- The soldier starts the game with a health of 100 health points.
 - The health points are decreased each time a player is hit by a laser from the robot.

- The decrease amount depends on the difficulty level selected.
 - The soldier can increase his health level by picking-up medical supplies found in the game world.
- The soldier can shoot bullets in all 4 directions by using the space button or the mouse.
 - The soldier has a limited number of bullets.
 - The soldier can pick-up extra bullets found around the game world.

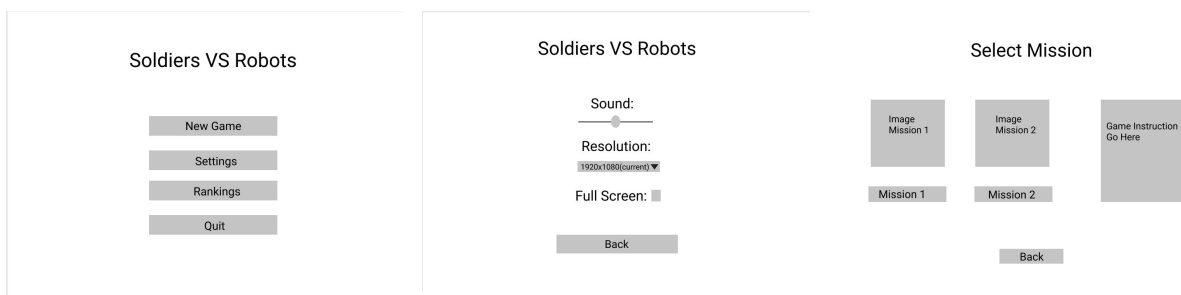
Robot:

- There are 3 types of robots. A light blue robot, a green robot and a boss. Each mission has its own robot type. (1st mission - blue robot, 2nd mission- green robot). Each mission has a boss robot that guards the cristal.
- Robots are spread around the game world at predefined places at the beginning of the game.
- The boss robot is large in scale version of the original mission robot with different health, speed and damage modifiers.
- The robots can move in four different directions(top, down, left and right).
- The robots can shoot lasers which inflict damage on the soldier.
- The robots have a health modifier of 100 at the beginning which decreases when they are hit by a bullet.
- The robots start to follow and shoot lasers at the soldier when he is close to them.
- Blue robots take less health damage than green robots.
- The green robots move faster than the blue robots.

The number of robots in each mission is to be decided at a later point for balancing the game. The exact damage percentage for both the robots and the soldier is not yet decided since it is subject to change for game balancing reasons, the base is assumed to be 10%. Any additional sound effects and animations are to be decided during the project development.

Prototype

The prototype shown below represents the initial plan for the game. The design colours, background images and positions are not final and are subject to change. Especially the mission map and enemy positions.





Complete prototype can be seen at:

<https://www.figma.com/proto/nKx5woWQGvKY6pZFP6Ycwi/Soldiers-VS-Robots?node-id=1%3A4&scaling=min-zoom>

Asset list

The assets listed below are to be used to create the world in order to minimize the time for designing tiles and characters in the game. Some assets can be *omitted* and/or *added* during the design and development process depending on the game look. A final list of used assets is to be presented in the final technical description.

Heroe - <https://opengameart.org/content/2d-soldier-guy-character>

Crystals - <https://opengameart.org/content/basic-gems-icon-set>

Map Tiles Sprites - <https://opengameart.org/content/lpc-tile-atlas2> - <https://opengameart.org/content/lpc-tile-atlas>

Enemy - <https://opengameart.org/content/platformer-sprites>

Items - <https://opengameart.org/content/various-inventory-24-pixel-icon-set> - <https://opengameart.org/content/ascension-2-galaxy-icons>

Bullet - <https://opengameart.org/content/bullet-collection-1-m484>

Music (more may be added) -

<https://assetstore.unity.com/packages/audio/music/orchestral/epic-adventure-orchestral-background-music-free-sample-23837>