



IMPLEMENTATION

NP Studios – Team 8

Team Members

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Missing Implementation Features

One of our requirements which we have partially fulfilled is **UR_interest**. This requirement says that the player should be drawn into the game and not be bored. We feel we have fulfilled this by having good control mechanics, graphics and colour schemes however we feel we could take it further. Ideas of features that would fulfil this requirement more fully, are having different attack modes for the fire trucks, power ups and more interesting level design. The reason we didn't implement these ideas for this sprint is because we were more focused on getting a fully functional implementation produced which could satisfy every requirement.

Different attack modes would mean that the player will have more to think about when playing the game through experimenting with different ways to attack. They could also witness different graphics on the screen, making it more fun and intriguing. For example, currently the attack is just a single beam of water leaving the fire truck however another mode of attack could be multiple streams leaving the fire truck at a time. This would be more interesting to see in the game for the player. Having different attack modes also helps fulfil the requirement **UR_strategy**, as the player would have to strategize and discover which mode of attack would be most beneficial in the situation they are in during gameplay.

Having power ups could be more fun for the player as it would motivate them during gameplay to get as many power ups as they can. It could force them to use the full extent of the map, in order to achieve the power up, that they may not normally venture into if their only task was to destroy the fortress. Power ups could include temporarily having unlimited water or healing items. Powerups would give the player more options to engage with the game, thereby adding replay value and would therefore engage the player for longer.

Another feature we are yet to implement is an animation for when the fire station is destroyed. Currently they get a warning when it is being attacked and there is 15 seconds before it is destroyed, however the only animation when it is destroyed is when a message pops saying they have lost the game (**UR_end_game_screen**) We would have liked to implement an animation so that the player knows the fire station has been destroyed with the pop up showing a few seconds after this. We also would like to do this for fire trucks and aliens (this would be an addition to both **FR_enemies_die** & **FR_engine_destroyed**).

In the brief we were asked to leave out patrols. Within the team, the decision we made was to implement a few aliens which spawn around the fortress as guards. These are not supposed to be patrols. If we continued with our project, we would have implemented patrols who follow the roads as well as the current aliens spawning around the Fortress. This means the player would have to dodge them as they move around the map to refill and strategize (**UR_strategy**) more rather than having the free space to easily move around.

A feature, which was not required for assessment two, is the minigame. This feature would satisfy a range of requirements: **UR_minigame**, **FR_open_minigame** and **NFR_main_focus**.

Currently our game only works for **1920x1080** resolutions, we prioritised this resolution as it is one of the most commonly used and allows the game to work easily on the computer science lab pcs where the game could be used during the open days. Currently if a monitor is not 4k or 1080p it will have resizing issues. If we had more time, we would implement a viewport and window resize feature.

Game and view the user manual: <https://npstudios.github.io/download/> The code we wrote is found in `\core\src\com\mygdx\game` in the packages **misc**, **sprites**, **states** and the class file **Kroy** as well as the tests in `core\test\java`.