

Product Brief: Kroy

The year is 2042 and York has been invaded by evil extraterrestrials (ETs) from planet Kroy, who have set up fortresses in key locations (e.g. York Minster, Clifford Tower) around the city. While ETs are more technologically advanced and outgun humans, they have a major - and very convenient - weakness: they evaporate when they come in contact with water. As the leader of the Resistance, you have taken over York's old Fire Station and you are now in control of its fire engines. Your mission is to use the fire engines you control to flood the ET fortresses, and liberate York.

You are to build a single-player game that involves moving fire engines between the Fire Station and the ET fortresses, avoiding ET patrols on the way, and attacking ET fortresses when the fire engines' water canons are within shooting range. Specific features that are required include:

- Each Fire Engine must have a unique spec in terms of the volume of water it can carry, its speed, the range and delivery rate of its water canon, and the amount of damage it can take before it is completely destroyed
- Fire Engines need to return to the Fire Station to repair and refill
- Each ET fortress must have a unique spec in terms of the range of its defensive weapons, the amount of damage these weapons can deal to Fire Engines over a period of time, and the volume of water it takes to flood
- Over time the ET fortresses improve and they become harder to flood
- There should be at least four Fire Engines and six different ET fortresses based (possibly loosely) on real locations in York
- The game is won when all ET fortresses have been flooded and is lost when all Fire Engines have been destroyed
- After a fixed amount of time following the first attack to an ET fortress, ETs figure out where the Fire Engines are coming from and destroy the Fire Station. From that point onwards, your Fire Engines cannot be repaired or refilled
- There should be an embedded mini-game, completely different in style from the main game, but aligned to the theme of the main game

Constraints

You are building a game that should be playable and enjoyable by your SEPR cohort. However, there are two stakeholders that you must also accommodate.

The customer: one of your lecturers (Prof. Dimitris Kolovos - dimitris.kolovos@york.ac.uk) will play the role of a customer who is interested in eventually trying to market and sell your game. Ultimately the customer is the person you must convince of the validity of your assumptions and decisions. This stakeholder can be contacted as often as you need and at any time (but do not expect an instant reply!).

The University of York Communications Office: who is interested in using your game for its own promotional activities, e.g., at Open Days, UCAS Days. Please note that you can only communicate with this stakeholder through the lecturers.

For Assessment 2:

For assessment 2 you are required to implement two fire engines and three ET fortresses. You should not implement patrols or the mini game. Also, in this initial version of the game, ETs should not be able to destroy the Fire Station and their fortresses should not improve over time.