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# Critical Mass Studio

## **Tyrfing-00: entertainment sci-fi game**

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# Pendulum Analysis Documentation

### Core Game Loop Design

The core game loop revolves around survival of a hostile space station through various different movement mechanics and survival elements. The goal of escaping the space station will be well defined at the beginning through the artificial intelligence of the space station teasing the player about their current failure to escape. Players will have to manage their oxygen levels whilst solving environmental puzzles and avoiding the artificial intelligence efforts to undermine the player. Clear feedback will be provided to the player through the artificial intelligence, who communicates with the player throughout the game as the antagonist.

### Real-Time Engagement Design

On a second to second basis, there will be multiple interactions that take place to allow for maximum player engagement. The player will need to manage their oxygen by finding oxygen sources, whilst avoiding hostile environments. The management of oxygen levels will be restricted to certain areas, as will the hostile environment. This provides potential for different short-term interactions to keep the player at a high level of engagement.

Minute to minute engagement revolves around one main goal for the player to aim to fulfill. This goal is the traversal of the space station through various movement mechanics and the progression through distinct sections of the space station.

### Long-Term Engagement Model

The engagement model for hour to hour gameplay involves the introduction of new movement mechanics. These movement mechanics will be provided to the player following milestones in the progression through the space station. Each new movement mechanic will be utilised in progressively more complex situations alongside previous mechanics. This ramp in difficulty provides a more engaging design for the player on an hour to hour basis. As the player gets to grips with mechanics, a new one is introduced to keep the player interested. Players will be rewarded with achievements after accomplishing certain milestones in the story, or for accessing hidden locations in the space station.

Year to year engagement with the game requires the release of additional content. Content is easily expanded on with a space station, as new characters or areas can be introduced. A time trial mode would be a very simple addition that introduces a new competitive aspect to the game.