<div align="center">

Needs Analysis: *Impossible3*
Team: Justin Sanny, Erik Tsai, Nick Soffa, Flanders Lorton, Ronald Uy, James Yen

</div>

3.0 Needs Analysis:

3.1 Introduction:

This preliminary needs analysis is based on our current predictions and goals for the *Impossible3* development. Any information is this document is variable to change. The following sections identify the audience, stakeholders, critical success factors, and elements of risk to the project.

For the *Impossible3* development team, a sellable product is defined as a playable, client side, game. Each product is composed of Unity proprietary software, scripts, and resource packs. *Impossible3* is intended to create a fun gaming experience, and be enjoyable for players of all ages.

3.2 Audience:

The expected audience for *Impossible3* would be anyone who is interested in playing video games. *Impossible3* should be able to be picked up easily by anyone with a computer. It should be playable at an easy to understand skill level while still allowing room to improve and get better with practice and strategy.The game should also have an intuitive, easy to use interface. The target users for *Impossible3* game is the general audience of video game players. Players should be able to enjoy and be entertained by the product.

3.3 Stakeholders:

Currently the primary stakeholders for this project is the development team. The quality of the project will be of great importance for our professional résumés. If we required an investment, crowdfunding would be a viable option. We would be required to make goals for people to reach and provide those goals when shipping the game. BJ Johnson is also a stakeholder in this project, as he is the supervising agent.

3.4 Critical Success Factors:

As with any software project of this size, there are several risk factors that must be considered to ensure they do not adversely affect the outcome and productivity of the project.

Due to the multitude of functionality and resources that will be part of *Impossible3*, the development team must consider possible risks and factors that may adversely affect *Impossible3* and the development of the game as a whole or the segments individually.

3.4.1 Critical Success Factors

Factors that are critical to the initial and continued success of *Impossible3* are itemized as follows:

- Straightforward Gameplay
- Immersive AI
- Optimization
- Bug & Error free
- Reliability
- Strategic Adaptability
- Intuitive UI
- Entertaining
- Suitable Graphics
- Variation in playstyle

3.5 Conceptual Solution Design:

Impossible3 will be written using Unity 3D and be powered primarily by C# scripting. Because Unity is an already-complete 3D engine, the dev team will need not be troubled by the hassle of programming a graphics engine, instead the team will use certain proprietary assets (available at the Unity Asset Store) to create the 3D grid structure. Unity allows for the creation of 3D objects whose movement can be controlled by event-based JavaScript or C#. Our artist, Ronald, will be responsible for designing the characters' appearances, will all be 2D sprites, and our UI team will design good UI. Flanders may do some texturing and dynamic lighting, to create an appropriate atmosphere.

Conceptually, the game consists only of art, scripting, and the Unity engine.