

Table 1: Revision History

Date	Developer(s)	Change
Sept 20	Jason Nagy	Added basics
Sept 20	Moziah San Vicente	Added stakeholders, importance of project and software environment
Sept 21	Jason Nagy	Edited grammar
Nov 28	Jason Nagy	Spelling corrections
Dec 5	Jason Nagy	Corrections for consistency

SE 3XA3: Problem Statement

Staroids

Team 20, Staroids

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Planning, designing and implementing a large piece of software is an expensive and daunting task. However, for games there is less of a focus on the documentation because the software is not meant to be altered by the user, but that doesn't mean that other programmers will not try to edit and revise the game to make it better or their own versions. This is true in Doug McInnes' HTML5-Asteroids program, a version of the arcade game Asteroids was developed for a user to enjoy. However, when looking at the code, it is a convoluted mess of functions and statements making it very difficult for a programmer to understand and work on additions if they desired to make edits. If the game were designed more in accordance to software design principles, the game would be better to both the user and other developers.

While functional, HTML5-Asteroids lacks the process structure and documentation of a large software project. This makes edits, revisions, and additions to the code more difficult as well as making the code less readable for other programmers. The game also does not follow the software engineering principles of modularity or information hiding.

By using the proper software design principles and process, the Asteroids game can be recreated with the future in mind. It will allow for the game to be expanded upon and more easily comprehended by any programmer that wishes to work on it or understand how the game was developed.

The stakeholders in this project include anyone who enjoys **playing computer games, ambitious programmers who wish to modify the games they like**, as well as any online gaming websites that may want to use our implementation. The video game industry is a billion dollar business that effects everyone, whether it is directly through playing games or through their spouse, partner, child, sibling or cousin. Now with the evolution of smart-phones and mobile gaming, the industry is becoming even bigger.

Furthermore, the environment that the system-to-be will embody is JavaScript, which can be run on any web browser. JavaScript is also convenient because there is no downloads needed to play, **as long as the user has the source code**

and a browser, they can play.