Unit Test Plan for SlideWinder

**SlideWinder**

**IEEE 829-1998 (Standard for Software Test Documentation)**

The test conducted throughout the SlideWinder project's first and second iterations were done thoroughly and extensively by Ryan Davis and Matt Douglas. The tests were completed on the following components in the length of time noted (Times are approximated):

* Launch of Game – 1 week
* Wheel Function – 2 weeks
* Timer/Game Over -2 weeks

The following are tests in progress or need to be initiated:

- Sprite Collisions - Pending

- Score – Pending

* Pause Function – Testing in Progress

The following are major incidents found during testing:

* Timer/Game Over

The timer-game over initial test failed due to an error in the UI code. The desired result was for the game to end after the timer ran to zero. Instead, the timer would run to negative values. A new if -statement was implemented and the timer shut down was successful in the final test stages.

              Both testers have thoroughly and objectively tested all the components that they were assigned. The tests were completed in an acceptable amount of time in concordance with the programmers implementing the designated functions to be tested. Their efforts produced  a stable system that performs as expected at this stage of development.

**Part 1 – Test Plan**

**How the testing will be done**: The testing will be done both during the software development of SlideWinder, and after its release on the App Store.

**Who will administer the Testing:** Ryan Davis and Matt Douglass will do the testing, working directly with Jack Price and Cristobal Guerrero in making sure they are testing new changes in the code and software.

**What will be tested:** The code, programming, class structure, gameplay and bugs will all be tested during and after development of SlideWinder.

**How long it will take:** Testing will consume the entire quarter, and the weeks/months after its release to ensure the application is bug-free and performs at it most optimal state.

**What quality level is required:** The highest quality standard is set for the testing and release of SlideWinder. Considering how many thousands (and perhaps millions) of downloads of the game could potentially have, we must place the highest quality standard on the testing phase.

**Part 2 – Test Design Specification**

The conditions of the test will be set on both the iOS simulator within Xcode and on the device itself. We will test each iteration and major change in the code and test for bugs, logical errors, and other errors that are common in game programming. The game will pass the test criteria when the game performs flawlessly, doesn’t crash, and the points and counting system works accordingly.

**Part 3 – Test Case Specification**

The test data will be supplemented by the Test Design Specification. The steps that each case will follow will be thoroughly documented by stating the test case, its preconditions and post conditions, the code involved with the specific part of the function being tested, and our expectations of what should occur when we implement the test.

**Part 4 – Test Procedure Specification**

Each test will be setup by first stating the preconditions of the test, where the game will be at before started the particular test, after that we will commence the test, trying to do things that will break the game. By doing certain actions outside the normal parameters of normal usage, we can assure that we’ll cover all the possibilities of what any user would do to the game. This type of extreme testing guarantees that all angles have been covered. As long as we know the expectations of what should occur both during and after the testing, our testing process will be successful.

**Part 5 - Test Item Transmittal Report:**

**Launch Game Test**: All tests for game’s launch have passed the final stages.

**Wheel Test:**All tests for the wheel have passed the final stages.

**Timer Game over Test:** All tests for timer game over have passed the final stages.

**Collision Test**: Test for collisions are still in the initial stages.

**Part 6 - Test Log**

**Test Case**: Launch Game

Tested by Matt Douglas

Status: Passed

The game launches with no errors.

**Test Case**: Timer Game Over

Tested by Ryan Davis

Status: Passed

The timer counts down to zero and the game is over. No errors were found in the final test.

**Test Case**: Turn Wheel Function

Tested by Matt Douglas

Status: Passed

The game wheel turns in full 360 degree motion with no errors to report.

**Part 7 - Test Incident Report:**

The timer-game over initial test failed due to an error in the UI code. The desired result was for the game to end after the timer ran to zero. Instead, the timer would run to negative values. A new if -statement was implemented and the timer shut down was successful in the final test stages.