Augmented Reality Game

Test Plan

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Team Name: Project Pals

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| Version | Date | Who | Comment |
| V0.0 | 10/04/15 | Clayton Cuteri | Original Test Plan Draft |
| V1.0 | 10/07/15 | Clayton Cuteri  Eric Peralli  Connor Heckman | Updated Draft |
| V2.0 | 10/07/15 | Connor Heckman | Added Links to other documents. Reformatted and edited some grammar mistakes. |

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**SECTION 1 – Introduction**

**Overall Objective for Software Test Activity:**

The overall objective in testing our software is to determine whether it has functionality, user friendly GUI, and networking. We will want to make sure that the software is actually able to work as an AR game. We also plan to ensure that the GUI has easy navigation so that users are able to setup up the game quickly and effectively. The last thing we will test, is the game’s ability to network. For this we will make sure that at least two different devices are able to interact via the game.

**Reference Documents:**

[Concept of Operations](https://docs.google.com/document/d/1x4QyHfMRQdcK_UUwJiVtlEQeu1ca7ca3vmrsmUwGgYY/edit?usp=sharing)

[Project Management Plan](https://docs.google.com/document/d/1_ODvCtTKPSJEnTv0dxVnQx6iGd40UmvQDcgeTsX3Kjo/edit?usp=sharing)

[Software Requirements Specifications](https://docs.google.com/document/d/1bq6qFGaFix2dHopm9GFpDvjj5qe3KKfZXPA6zyiA4v4/edit?usp=sharing)

**SECTION 2 -****Description of Test Environment**

All devices used in testing will be running on an Android OS. We will have developers and friends of the developers using the android devices with the app loaded. We will have people on different Wi-Fi and people using 4G to ensure there are no connection issues with either. This environment is almost identical to the networking needs. The only difference would be the physical distance away from other users once released to the public. This should be negligible with our concept.

**SECTION 3** **- Stopping Criteria**

**If errors are found during testing:**

If we find a bug, we will proceed with one of two options. If the severity of the bug hinders the core functionality of the app, we will discontinue the current test and fix the bug. If the bug does not affect the core functionality, we will log the issue with its runtime state and fix after the current round of testing.

**If no errors are found during testing:**

After a round of testing is completed and without a bug detected, we will examine all possible internal and external interactions between the user, the application, and the environment. This will ensure optimal application performance.

**What is “good enough to deliver”?**  
If a bug is found during a test, the bug will be fixed and we will begin the next round. There must be three consecutive rounds of testing without a bug for our code to be deemed “good enough to deliver”.

**Section 4 - Description of Individual Test Cases**

**Test Case 1: Offline User**

Test Objective: Observe that the game is able to load, run, and play on a single device.

Test Description: Open the app and observe easy navigation and that the game can start up. Observe they can launch the high scoreboard to display the record high scores of local user. Observe functionality of all customization features.

Test Conditions: See Section 2: Test Environment. We will need to create multiple instances of the game in order to observe the functionality of each customization option.

Expected Results: We will want to observe that single player mode allows the ability to register a tap, instances of enemies to update their health and disappear if health equals zero, ensure enemies remain instantiated when off screen, and score is added to a local list.

**Test Case 2: Online User**

Test Objective: Observe that the game is able to load, run, and play on a device that has an Internet connection.

Test Description: Open the app and observe easy navigation and that the game can start up. Observe they can launch the high scoreboard to display the record high scores of online users. Observe functionality of all customization features.

Test Conditions: See Test Case 1: Test Description. As well, ensure network functionality.

Expected Results: We will want to observe that all player modes allow the ability to register a tap, instances of enemies to update their health and disappear if health equals zero, ensure enemies remain instantiated when off screen, and upon completion of game session the score is compared against online scores and scoreboard is updated if appropriate.