

**Game Title**

***Game Caption***

A Major Qualifying Project Report

Submitted to the faculty of

Worcester Polytechnic Institute

In partial fulfillment of the requirements of the

Degree of Bachelor of Science

On October X, 20XX

Submitted By:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WPI: Maxwell Perlman

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WPI: Stefan Alexander

Ritsumeikan University: Wakao Asuka

Ritsumeikan University: Kohno Hitomi

Advised By:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

WPI: Professor Robert Lindeman

Ritsumeikan University: Professor Noma

Abstract:

Acknowledgements:

Table of Contents:

1. Introduction
   1. Project Title
   2. Project Location
   3. Team Members and Responsibilities
   4. Advising Professors
2. Introduction
   1. Project Proposal and Purpose
      1. Use of gameplay to influence behavior
      2. Ultimate goal: lifestyle change and attitude adjustment towards exercise
   2. Gameplay Inspirations
      1. JRPG Genre
      2. Ingress
      3. Dungeons and Dragons
      4. Find Mii
3. Development
   1. Xcode and iOS
      1. Swift vs. Objective-C
      2. Frameworks
         1. MapKit
         2. SpriteKit
         3. Multipeer Connectivity Framework
         4. CoreLocation
         5. CoreMotion
            1. M7 chip
         6. Darwin
         7. Accounts
      3. UIPickerViewDelegates
      4. Local Push Notifications
      5. NSUserDefaults
      6. prepareForSegue
      7. NSTimer
      8. AppDelegate
      9. Dispatch\_get\_global\_queue
   2. iBeacon
   3. Server and Database
   4. GitHub
4. Design
   1. Beginning Decisions
      1. Japanese Audience
         1. Why iOS?
         2. Why Twitter?
         3. Violent vs. non-violent gameplay
      2. Multiple characters per player?
      3. Original design intention
   2. Art and Style Guide
      1. Artistic Influences
   3. Combat System
      1. Excel / Google Docs: Spreadsheet
      2. References
      3. Entities
         1. Traits
         2. Player
            1. Character Growth

Through gameplay

Through exercise

List of Attacks

Requirements to learn attack

Math behind attack

* + - 1. Enemies
         1. Possible growth rates
         2. Types

Picture of enemy

Original Art Request

Design based on …

Math

Growth vs. Level

Attack Power vs. Level

Attacks

* + 1. Testing Procedure
       1. Computer automated testing
       2. Player based testing
  1. Future design areas and expansion possibilities
     1. Expanding audience
        1. International audience
        2. Non-twitter login
        3. Alternate Device Support
           1. Android Support
           2. Non-m7 iOS device support
     2. Implementation of additional iBeacon devices
     3. Deeper combat system

1. Gameplay Guide
   1. First gameplay experience
      1. UI
         1. Explanation of current interface
   2. Subsequent gameplay experiences
      1. UI
         1. Explanation of current interface
2. Timeline
   1. Initial timeline
   2. Actual timeline
   3. Unimplemented features and explanation
3. Project Materials
   1. Code
   2. Art Assets
   3. Gameplay Math Tables
4. Reference Materials

**Table of Figures**