Software Requirements Specification

for

UPOD - Graphics/Animation

**Version 0.1**

**Prepared by Jeffrey Chung**

**Wilfrid Laurier University, CP317**

**May 17 2016**

**Table of Contents**

**Table of Contents**

**Revision History**

**1. Introduction**

1.1 Purpose

1.2 Document Conventions

1.3 Intended Audience and Reading Suggestions

1.4 Product Scope

1.5 References

**2. Overall Description**

2.1 Product Perspective

2.2 Product Functions

2.3 User Classes and Characteristics

2.4 Operating Environment

2.5 Design and Implementation Constraints

2.6 User Documentation

2.7 Assumptions and Dependencies

**3. External Interface Requirements**

3.1 User Interfaces

3.2 Hardware Interfaces

3.3 Software Interfaces

3.4 Communications Interfaces

**4. System Features**

4.1 System Feature 1

4.2 System Feature 2 (and so on)

**5. Other Nonfunctional Requirements**

5.1 Performance Requirements

5.2 Safety Requirements

5.3 Security Requirements

5.4 Software Quality Attributes

5.5 Business Rules

**6. Other Requirements**

**Appendix A: Glossary**

**Appendix B: Analysis Models**

**Appendix C: To Be Determined List**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Date** | **Reason For Changes** | **Version** |
|  |  |  |  |
|  |  |  |  |

# Introduction

## Purpose

*This requirements package outlines the various graphics/animations that will be used across the Laurier UPOD Page, in order to maintain a consistent appearance and level of performance.*

## Product Scope

UPOD is a Undergraduate Physics Online Database where the aim is to provide accurate and up to date physics knowledge to first year students. The UPOD is divided into six main categories that are Fundamentals, Classical Mechanics, Optics, Electricity and Magnetism, Quantum Mechanics and Statistical Mechanics. This will allow students to remind themselves of what formulas and laws they have forgotten or have not learned. This is to replace the original UPOD website that was originally designed.

*<Provide a short description of the software being specified and its purpose, including relevant benefits, objectives, and goals. Relate the software to corporate goals or business strategies. If a separate vision and scope document is available, refer to it rather than duplicating its contents here.>*

1. **Project features**
   1. How it fits the project

The animations we will create with SVG will allow the user to gain a better understanding of Physics concepts through interactive diagrams. We are hoping to create 5-15 animations touching on each of the physics categories in UPOD. The specific diagrams, that are going to be animated, are going to be decided in tandem with the Physics Research group.

* 1. Users

The main people who will use it will be the students who are the users and then the people in charge of the UPOD app are the Admins. The Users will be interacting with the animations that we create. They will be able to change the parameters of the diagrams and an altered diagram will be displayed. Then the Admins will be able to decide which diagrams are available and will also have the ability to turn off the interactive portion of the diagrams.

* 1. List of main features

-Some runtime environment

-Model (**M**VC)

-Represents the equation or physics concept illustrated

-View (M**V**C)

-Sliders, buttons, and other UI elements to interact with the model

-Objects to reflect inputs and demonstrate concepts

-Controller (MV**C**)

-Liases and controls the view to reflect the model