Software Requirements Specification for

UPOD - Graphics & Animation

**Version 0.1**

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**Revision History**

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

# Introduction

## Purpose

Specifies the software requirements to output and display interactive graphical objects on UPOD

## 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.

The animations, created with SVG, will allow the user to gain a better understanding of Physics concepts through interactive diagrams displayed on their respective pages on UPOD.

# Overall Description

## Product Perspective

## Product Functions

## User Classes and Characteristics

## Operating Environment

## Design and Implementation Constraints

## User Documentation

## Assumptions and Dependencies

# External Interface Requirements

## User Interfaces

## Hardware Interfaces

## Software Interfaces

## Communications Interfaces

# System Features

## Diagram Generation

4.1.1 Description and Priority

Displays animated graphics of individual physics concepts on UPOD. High priority. The specific diagrams, which are going to be animated, are going to be decided in tandem with the Physics Research group.

4.1.2 Stimulus/Response Sequences

* 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.
* 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.

4.1.3 Functional Requirements

REQ-1: 5-15 animations touching on each of the physics categories in UPOD.

REQ-2: A graphical model will be used to represent a physics concept

REQ-3: Sliders, buttons, and other UI elements will be used to interact with the model

REQ-4: User can also control and adjust for the view of the model