Release Plan

Product: Light Orb
Team: Blinky Lights
Release Name: Final Release
Release Date: ?
Revision 0.4
Revision Date: 11/3/2014

Preamble:

This project is to complete the software portion of a personal project of the product owner. We will use the existing custom hardware that we will refer to as the “LED orb.” The LED orb is a metal ring with 28 RGB LEDs powered by an ARM MCU, which rotates rapidly along an axis through the top and bottom of the ring. The LED orb uses the concept of “persistence of vision,” similarly to the oscillating design of a propellor clock.

High Level Goals:

Implement a software motor speed controller and LED multiplexing software such that images can be displayed on the LED orb at an acceptable frame rate. Implement a companion application that can be used to conveniently generate content in a format compatible with the LED orb and control the display from the platform device (TBD - bluetooth connected device such as Android, iOS or Web app). Hence, the LED orb will be programmable in real time wirelessly using Bluetooth or similar technology. The companion app will allow the display of images, scrolling text and simple animation.

User Stories:

Sprint 1:

- (21) As a user I want to see an images appear on the LED orb, so that the LED orb may be used as a display.

- (8) As a user I want a companion application that can conveniently generate media in a format compatible with the LED orb, so that media can be displayed on the LED Orb.

Sprint 2:

- (13) As a user I want to wirelessly control the LED orb with the companion application, so that I can display media on the LED orb easily.

- (8) As a user I want the companion app to display scrollable text on the LED orb, so that the LED orb may be used to display messages.

- (5) As a user I want the companion app to support a drawing canvas, so that I may use it to create media to display on the LED orb.

Release Plan

Sprint 3:

- (8) As a user I want graphics settings for the LED orb, so that the LED orb can display media with additional effects (such as pixelation, color blending, fade, inverted, ect.).

- (13) As a user I want the companion app to support simple graphics and animation, so that better content may be displayed on the LED orb.

- (3) As a user I want the LED orb to have an adjustable motor power supply, so that the LED orb frame rate may be controlled.

Project Backlog (user stories not included in release plan):

- User Story 8: As a user I want the companion app to convert existing media formats to the LED orb compatible format, so that existing media may be displayed on the LED orb.

- User Story 9: As a user I want the companion app to generate graphic equalizer animation from audio, so that my audio media may be displayed on the LED orb.

Changes:

Motor controller incomplete for sprint 1, moved back to sprint 3.