//TODO: Team Name
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xLights Companion Pro

January 14th 2021

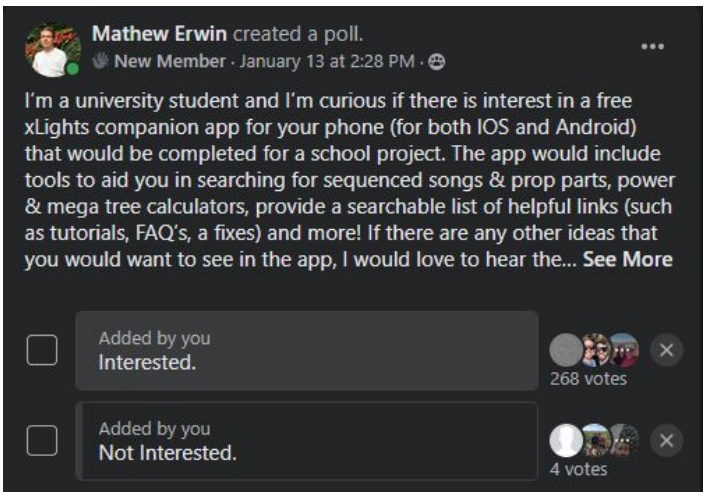
OBJECTIVE

xLights is an open source program that allows people to design light sequences timed to music. This allows easy tuning of lights through effects and animations to create unique light displays.

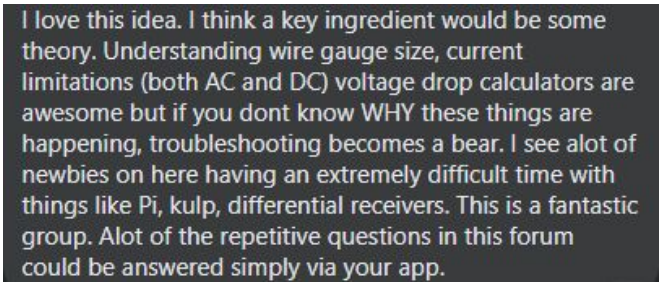
Here is an example of what xLights can do: (Link) 350+ Christmas Displays, 6 Continents, 1 Song

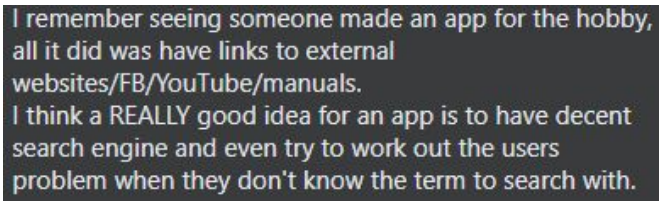
There are a set of questions that get asked on a frequent basis by people new to the community. The learning curve to this product can sometimes be steep and there is no good collective resource for information to help these people out. They need help with things like searching for sequenced songs, prop parts, and specialized calculators.

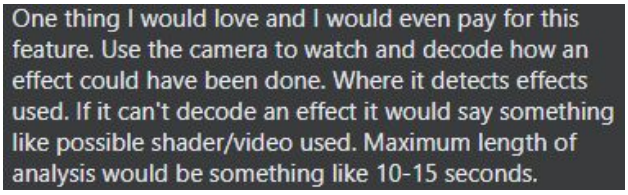
As a team, we conducted a poll on Facebook in the Official xLights Support Group with over 14,000 members to determine if there is a need for an app to help with the xLights product, and what features the community would like to see in it. These are the results from the poll:



Within 24 hours, we had 250+ people interested in our app with a 98.5% positive ratio.







We also received some helpful feedback from Facebook users about which features they would like to see. Here are 3 examples of the many comments we received on the post. We expect to convert some of these comments into requirements!

Our goal is to cut down on redundant questions from new users of the xLights community. The main goal of this app is an all in one resource for the average xLights user would need. This would include computing power threshold for a given product. The application would also allow for access in browsers so clients have the opportunity to access the xLights forums without having to leave the application. The features we are planning to implement will allow for a simple one stop shop for all things xLights.

The importance of this app will be to solve the frustration people may feel trying to set up their lights and create an experience that is easy and fun to use.

SOFTWARE ENGINEERING PROCESS

The SWE process our team has decided to use is Agile with feature driven development.

This process has 5 main steps: Developing the Overall Model, Building the Feature List, Plan by Each Feature, Design by Each Feature, and Build By Feature.

We will have bi-weekly “sprints” in which we plan on developing at least one feature per “sprint”.

TEAM

Our team consists of 5 students: Cameron Hutchings (6427892), Nicholas Long (6185086), Mathew Erwin (6051247), Jayden Irwin (6064695), Marshall Joseph (6031280).

Set Meeting Date: Wednesday 12:00pm - 1:00pm. Other weekly meetings will occur at other times to be scheduled in advance based on each team member’s availability.

The team leader is Cameron Hutchings.

Each group member has their own strengths and weaknesses when it comes to coding. Based on these strengths, we have split our app into two operating systems. Jayden Irwin & Nicholas Long will be working on the iOS app since they have the most experience with iOS, including published apps in the app store. Marshall Joseph & Mathew Erwin will be working on the Android app since they have the most experience with Android, including several unpublished apps, as well as winning a Hackathon with an Android app. Cameron Hutchings has experience with both operating systems, but would not consider himself an expert at either. He will float between both repositories and to ensure they are identical and to provide help where needed the most.

GITHUB

Android: https://github.com/MarshallJoseph/xLights-Companion-Pro-Android

iOS: https://github.com/JaydenIrwin/xLights-Companion-Pro-iOS

TIMETABLE

Submit Proposal	January 17th
RA: Create Feature List	January 20th
RA: Overall Design Documentation (Diagrams)	January 27th
RA: Create UI Design	February 3th
Submit Requirements Analysis	February 7th
Create a plan by features	February 14th
Design by feature	February 20th - April 5th
Develop the software by feature	February 30th - April 5th
Implementation phase reports	March 7th, April 3rd
Design App Store + Play Store pages and upload app	April 5th
Send out marketing messages to community	April 10th
Final Report and Presentation	April 26th - 30th
Provide additional use support if necessary	April 30th

*RA: Requirements Analysis