A Lighting Board Controller

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Abstract

The goal of this project is to design and implement a lighting board controller. The lighting board will be used to control eight dimmers, each of which can power up to two theater lights. Each dimmer is assigned to a channel that can be programmed at different intensities(0%–100%) levels for each of the 128 cues. Each cue has an up time and down time, up to 60 seconds, indicating how long it takes to bring the channels up to their respective intensities for the cue and back down at the end. There are also some optional parameters for each cue: wait, follow and link. Wait indicates a period of time to wait before bringing up a cue after the go signal. Follow indicates a time period to keep the cue up before continuing to the next cue. Link indicates the next cue to go into. Link can be either sequential or used to create loops. The user will program cues using a standard computer keyboard and screen. The screen will display detailed information for a single cue and basic information for every cue. The board will operate in two modes: blind and live. In live mode, changes to a cue will affect actual channel intensities in real time. In blind mode, the changes will not be visually seen until that cue is in live mode.