

## Checklist

### Lighting board specifications

- User can create and save up to 127 cues using the keyboard to create and edit the cue and the screen to display the cue the user is working on.
- Up to 8 channels can be used for each cue with the maximum intensity of each channel being 100%
- The cues will be demonstrated with two dimmer boxes and at least 8 mini theatre lights
- Any cue can be loaded by entering the cue number and pressing 'go'. The next cue is loaded by pressing 'go'
- The user can set the up time and down time for each cue
- During the loading of a cue, the lights from the last cue will be turned off gradually over the down time period and the lights in the next cue will be gradually turned to their appropriate intensities over the up time period
- The uptime of a cue can be delayed by using the wait time
- Cues can be ordered non-sequentially by using 'link'
- The next cue can be automatically loaded after a period of time by using 'follow'
- Changes to a channel are "captured" and are not lost until the channels are released even if a new cue is loaded
- When the channels are released the channel intensities revert to the values stored in the current cue
- Two modes of operation are available: live and blind mode. In live mode, changes to channel intensities modify the intensities of the lights on stage. In blind mode, any changes on screen will not change the lights. A cue cannot be loaded on stage while in blind mode.
- If time permits: Ability to store cues for multiple shows

### Module specifications

#### Screen Module

##### Static Display:

- Channel 1-8 labels
- Labels for the characteristics of the current cue in the bottom right of the screen: cue number, wait, link, follow, up time, downtime
- The up time, down time, wait, and cue number headings in the bottom left box
- Current cue label at the top right corner of the screen

##### Dynamic Display:

- Values for all of the labels listed above
- The current cue information can be edited and displayed concurrently on the screen with the users edits
- The intensity levels for each channel will be displayed depending if you are editing or loading from the cue
- The mode that you are operating in will be displayed

- If time permits: the channels will be color tracked depending on if they were used in a previous cue or not

#### Keyboard Module

- Be able to edit the information on the screen appropriately
- Have all appropriate buttons working to access the special operations of the screen: channel, at, cue, blind, stage, downtime, clear, follow, link, go, release, save, full, clear cue, record, uptime, wait, enter, numbers 0-9
- If time: we will implement a back button to go to the previous cue

#### Processor

- Able to operate in instruction buffer mode and macro mode
- Handles all beta instructions except for multiply and divide
- macros for load cue, record, release, and set channels and set cue properties do the appropriate things depending on live or blind mode and whether the channel is captured or released

#### DMX Module

- Able to hold a channel at a certain intensity
- Able to gradually change channel intensities for loading a cue
- Able to delay the uptime of a cue for wait time