Multi-Device Music Generator

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Advanced Web + Screen

Realtime Webapp (Networking)
Project Proposal

Proposal

For my networking project, I would like to create a music generator that engages many users at a time by assigning each one their own note. According to pre-determined chords that can be made with the available notes (based on number of users at a given time) and semi-randomized chord progressions, generative "songs" will be created that can be heard synchronously on each device connected to the site.

I've been thinking a lot lately about design for the visually impaired, particularly in the realm of the web. For a networking project in particular, I want to be able to create something that doesn't require vision to experience in a rich, full way. Therefore, this project will not have a physical/visual interactive interface, and instead will be guided by sound. There will be a visual component in which each note is also assigned a col-

or, so that when a device plays a certain note the display has a flood of color on it, but this component will not be necessary to understanding or experiencing the project.

Some projects that already exist that are providing inspiration for me are "2001 Dialtones (A Telesymphony)" and WolframTones music generator.

Technical Components

Every 3 seconds, the server generates a new chord, which has a set of possible notes (in sound files) attached to it.

When a device connects, the server assigns it a note when it generates a new chord in various octaves (the more users, the greater the range). The device plays the sound it is assigned.

When the server generates a new chord, each device is reassigned a new note, and plays the respective sound file.

Each note is also assigned a unique, constant color, and when a note is played on a device, it will flood the screen with that specific color.

The biggest technical challenge I can forsee will be perfecting the algorithm by which the chords are randomized. I would like there to be some specificity to the progression to produce musically meaningful results, but deciding how to do this and how much to do this will likely present some difficulty.

Sound & Inspiration

In order to get the specific sounds I'm looking for, chances are I'll end up having to record them myself. This could either be done with a free sound generator online, in which case the download of the sound file would probably have to be kind of bootlegged, otherwise I'll find someone with a keyboard/synthesizer and record notes being played that way.
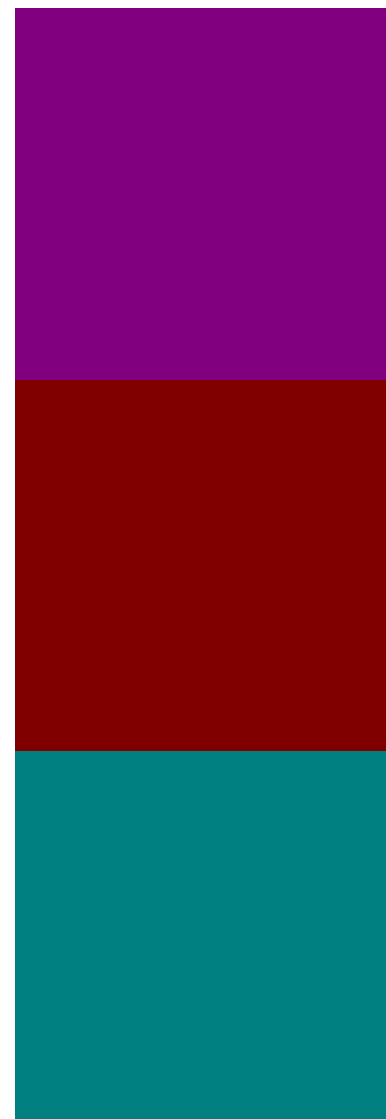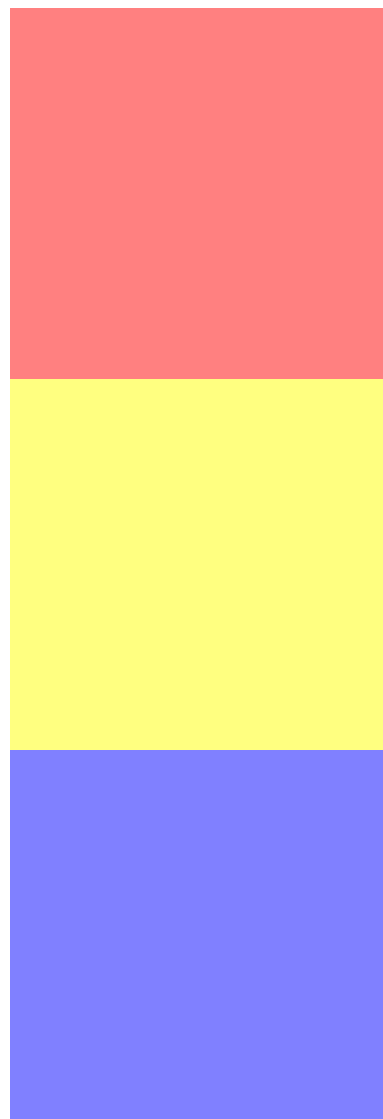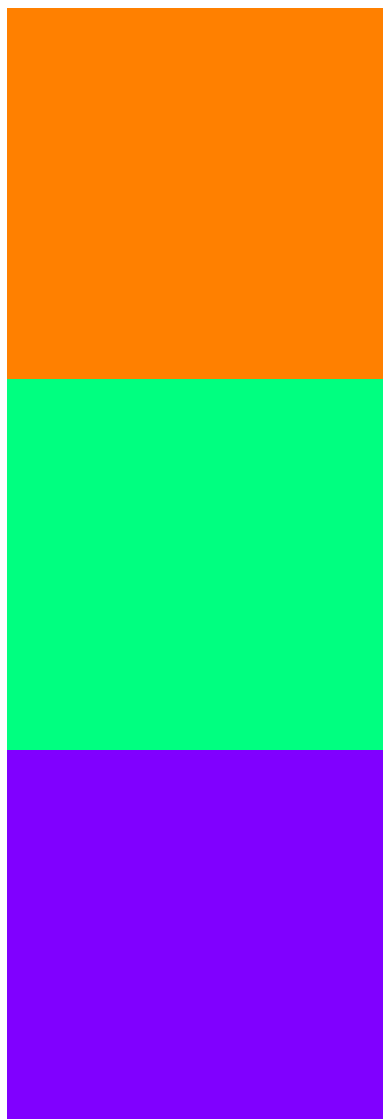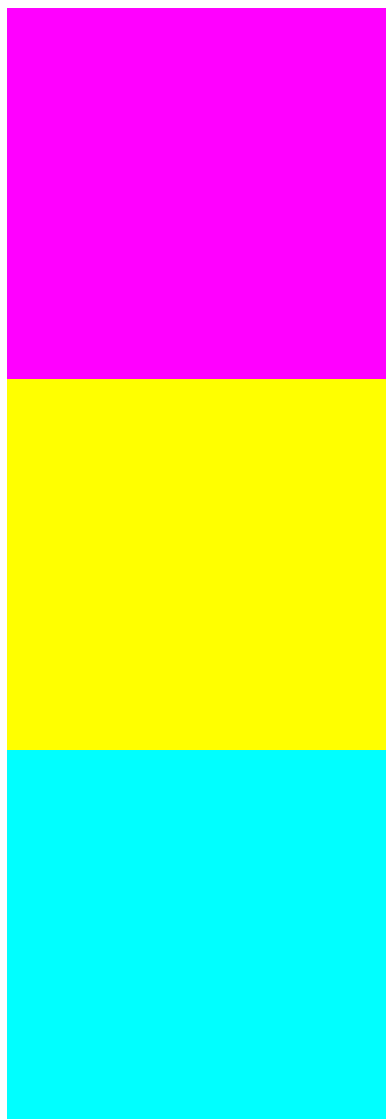
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https://www.youtube.com/watch?v=fFIj8T4iArY

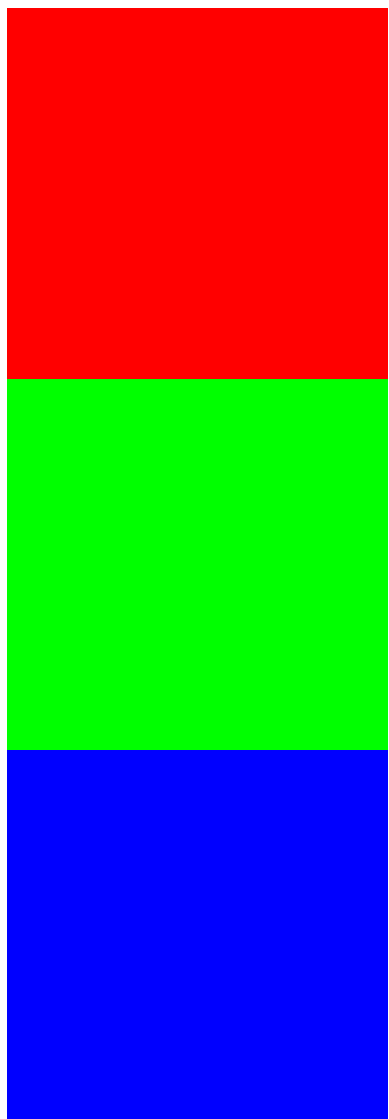https://www.youtube.com/watch?v=qKyMDjFxIQ8

https://www.youtube.com/watch?v=NenMe_Gb5ng

Color

Upon connection and waiting for the next chord to be generated. ↓