

ColorMate

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ABSTRACT

Let's be honest. Clients are often terrible designers. We can't really blame them, after all their skillsets lay in whatever product or service for which they've hired a professional to help them create a brand around. Once the business strategy has been set and a logo has been designed, the next fundamental step is deciding on a color palette to represent the brand.

Clients can easily waste days or weeks wavering between different color options and offering their own (at times awful) new ideas, holding up the design process. ColorMate seeks to streamline this step in the client-designer workflow and to offer a fool-proof way to end up with a color scheme that satisfies the client and follows good design sense.

DESIGN PROBLEM

Professional graphic designers often have an inherent ability to create aesthetically-pleasing colored artwork, and if it's not built in their bones, they learned it in school as one of the foundational cornerstones of design: color theory. Just as science and mathematical equations are the reasons musical notes sound pleasant and snoring is annoying (ordered vs. disordered sound waves), the laws of nature have determined color patterns that are pleasing to the eye and evoke positive emotional responses. Color harmony keeps things in balance and will keep a viewer engaged, whereas random assortments of color may confuse the viewer to the point they want to look away be it boring, chaotic, or just plain ugly. ColorMate takes the guess-work out of harmonizing colors by doing the legwork for you, all the user has to do is pick a primary color they like and can then choose a variety of time-proven color schemes to go along with it.

Sometimes, the issue of color can cause major hiccups to the overall production schedule of a project. Clients can become very picky about color schemes and want to see dozens of variations before making a decision on the final look. This can cause major delays as the designer must go back into their files to change the colors, editing each individual element at a time and developing new palettes based on a primary color, export it to a readable format, email to the client, wait for feedback, then start the process over again until complete. ColorMate's ability to instantly test out all colors in a variety of color schemes speeds up the process tremendously.

USER EXPERIENCE

We see ColorMate being used in two ways: first, this can be a tool used during a live-meeting with designers and a client to explore different color options in real time, and second, once the designer has uploaded their logo, they could send a link to the tool to the client directly and let them play around with colors until they find something they like.

Once the user opens the app, they will notice their pre-approved logo design on the right hand side of the screen. They could then use the hue, saturation, brightness, and alpha sliders to find a primary color that they like. Then, they can test out different harmonious color combinations by clicking on the complementary, analogous, or triad buttons. If they click on the primary color circle, it will go back to a monochromatic scheme. They can continue using the slider to test out various color schemes and watch the colors change on the logo simultaneously.

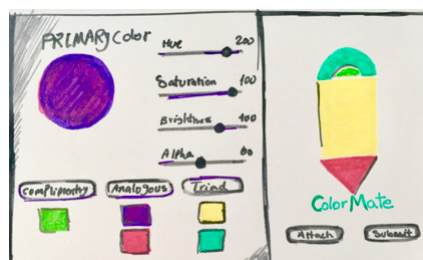
You're giving the user freedom to choose any color of the rainbow for the primary color, but – and this is where it becomes important to streamlining the entire process – any additional colors are thoughtfully produced based on three of the most popular color schemes:

complementary, two colors opposite from each other on the color wheel; analogous, colors that are adjacent to each other on the color wheel; and triad, colors that are equal distances apart on the color wheel, forming a triangle.

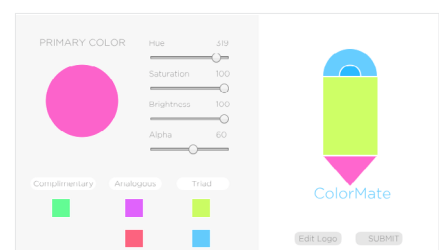
While the initial idea of ColorMate was to simply create a tool that could identify colors and their harmonious counterparts, it quickly became apparent that in order to maximize the usefulness of the tool, we would need to create a way for designers to upload their own logo files prior to using the tool and, once the color scheme is set, have a way for the user to send the final colors chosen to the designer, including HSB color values. Thus, while the current buildout only has the primary color-changing functionality, a phase-2 of the project would consist of two key elements. The first would be building out a p5.js-powered graphic design tool, where the user can create the logo and have it integrate directly with the color scheme tool built here (they would assign certain elements of the logo a number of 1, 2, or 3 – which would then be automatically assigned colors based on the colored app). The second element would be adding the functionality of the “Submit” button to send an automatic email to the designer stating the final colors chosen.



Sketches - Mobile & Desktop



Colored Sketch



Final Design

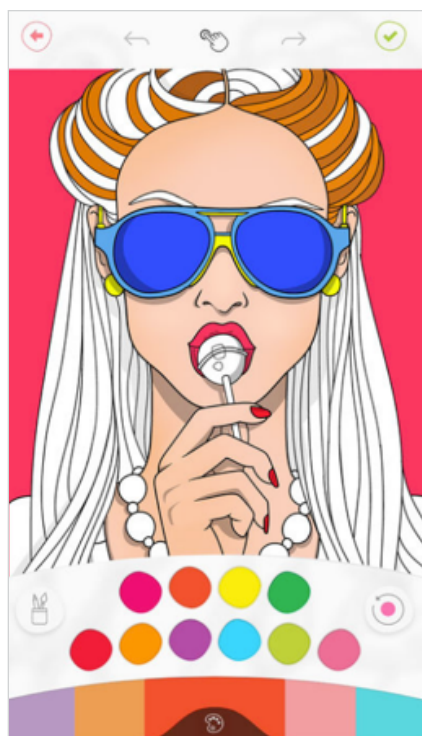
PRIOR ART

Our unique approach to digital coloring logos is rooted in our mission to serve the everyday designer and we just need the right tools to do it. That's why when we created ColorMate we didn't just want another tap-to-color experience like so many other apps were doing and focused on stress and creativity by making coloring on phones and tablets.

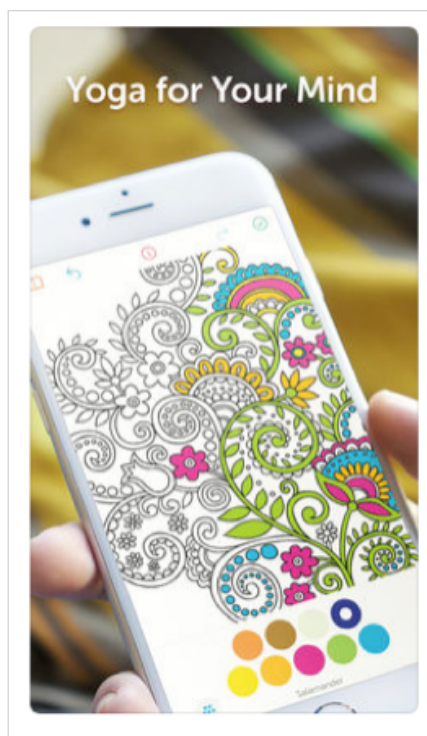
Colorfy is the most popular coloring app on iTunes® for improving creativity and reducing stress. While colorfy seems to align with ColorMate in automatically suggesting color themes that align with good color theory, the primary goal is to assist with mental health issues while ColorMate is for commercial design needs.

Recolor is an adult's book coloring and has the same de-stress focus as Colorfy. This app allows you to color objects in a 3D environment which would be a good future-feature for ColorMate, to allow users to see colored logos on different composite brand collateral samples.

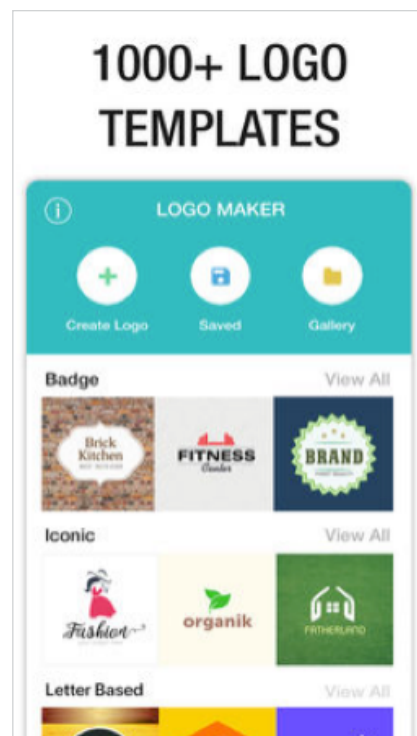
Logo Maker is the simplest app to create a logo on your iPhone, iPad and iPod. Logo Maker helps you visualize and communicate the value of your brand without any design experience from the user. While this app eliminates the need for a professional designer, ColorMate is an important tool to foster and assist the client-designer relationship.



Colorfy



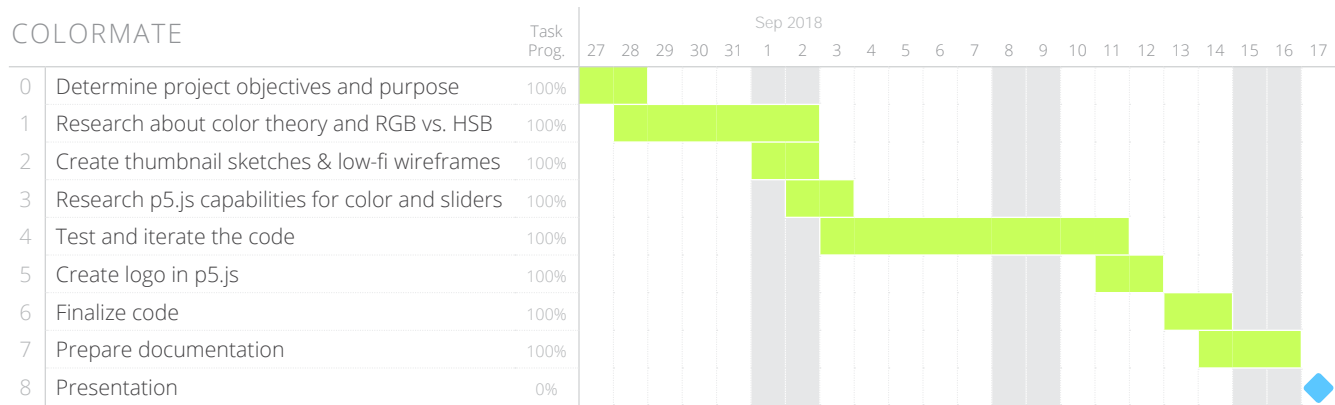
Recolor



Logo Maker

PRODUCTION SCHEDULE

The Production Schedule for this project is as seen in the chart below, starting on August 27 and going on until September 17, 2018.



TECHNOLOGY

This application was built using the p5.js and p5.dom JavaScript libraries.

View application: <https://lhuffman15.github.io/colormate/>

View code: <https://github.com/lhuffman15/colormate.git>

Pseudo code

1. Import p5.js library and p5.dom
2. Make needed variables (*see next page)
3. Preload font
4. Setup canvas
5. Create hue, saturation, brightness and alpha sliders and set position
6. set logoColor to 0
7. Draw the top left side of the canvas, setting background color and placing slider labels
8. Set the hue of the primary colored circle to the slider values
9. Create the complementary, analogous and triad buttons
10. Create the complementary, analogous, and triad swatches and set values based on the primary color (*see variables on next page for explanation)
11. Create logo on right side of canvas
12. Set logoColor = 0 to primary color fill only
13. Set logoColor = 1 to complementary color fill
14. Set logoColor = 2 to analogous color fill
15. Set logoColor = 3 to triad color fill
16. Add look of "Edit Logo" button, to connect with future logo-designer in app phase 2 build
17. Add look of "Submit" button, which will send email of final colors to designer in phase 2

Variables	
var slider;	Hue slider, ranges from 0 to 360
var sliderSat;	Saturation slider, ranges from 0 to 100
var sliderBri;	Brightness slider, ranges from 0 to 100
var sliderTran;	Alpha/transparency slider, ranges from 0 to 100
var comp;	Complementary color (180° difference)
var anl1;	Analogous first color (+30° difference)
var anl2;	Analogous second color (-30° difference)
var triad1;	Triad first color (+120° difference)
var triad2;	Triad second color (-120° difference)
var myFont;	Main font, GothamLight.otf
var logoColor;	Determines the color scheme displayed on logo
var elx, ely, eld;	Primary color circle x, y, and diameter variables

RESOURCES

1. Create hue slider, which we adapted to include saturation, brightness and alpha values <https://p5js.org/reference/#/p5/createSlider>
2. Information on the p5.dom library <https://p5js.org/reference/#/libraries/p5.dom>
3. Color theory HSB explanation <https://learnui.design/blog/the-hsb-color-system-practicioners-primer.html>
4. Color theory basics <https://www.colormatters.com/color-and-design/basic-color-theory>
5. Colorfy iTunes app <https://itunes.apple.com/us/app/colorfy-coloring-art-games/id1009442510?mt=8>
6. Recolor iTenues app <https://itunes.apple.com/us/app/recolor-coloring-book/id1027352017?mt=8>
7. Logo Maker iTunes app <https://itunes.apple.com/us/app/logo-maker-create-a-design/id1143390028?mt=8>