

IMGS-351

Project 1 report

Team #: 1

Names: Cooper White & Gian-Mateo Tifone

Date: 9/11/2023

Make/model of camera used to take images: iPhone 13 Pro Max

Camera settings (if applicable): N/A

Image of ColorChecker chart and color patches from step 3)



Cropped/resized image of ColorChecker chart from step 4)



Cropped/resized image of color patches from step 4)



Matlab script from step 4)

```
% proj1.m

% Reads colorchecker and color sample images
% Performs: rotate, crop, resize
% Saves separate colorchecker and sample images
% 9/11/2023 CW & GMT

%Read in colorchecker + sample image
colorChecker=imread('white_iPhone13.jpg');

%Define bounding reocrangle for crop
rect=[850 600 1800 1250];
%Crop colorchecker
colorChecker_c=imcrop(colorChecker,rect);
%Resize colorchcecker
colorChecker_r=imresize(colorChecker_c, [800 1125]);

%Define bounding rectangle for crop
rect=[2750 1260 380 625];
%Rotate samples
colorChecker_rotated=imrotate(colorChecker,-1,'crop');
%Crop samples
samples_c=imcrop(colorChecker_rotated, rect);
%Resize samples
samples_r=imresize(samples_c, [300 225]);

%Save separate colorchcker and sample images as JPG's
imwrite(colorChecker_r,"chart.jpg");
imwrite(samples_r,"samples.jpg");
```

Real/imaged ColorChecker charts in lightbooth from step 6)



Real/imaged color patches in lightbooth from step 6)



Table of visual color differences between real/imaged patches from step 6)

patch #	patch name	imaged patch appearance
1	dark skin	Darker
2	light skin	Darker, less saturated
3	blue sky	Darker
4	foliage	Darker, more dark green
5	blue flower	More bluer
6	bluish green	Lighter
7	orange	Darker, less Saturated
8	purplish blue	More bluer
9	moderate red	Less Saturated
10	purple	Darker and More Blue
11	yellow green	Less Saturated
12	orange yellow	Less Saturated
13	blue	Darker
14	green	Darker
15	red	Less Saturated
16	yellow	Less Saturated
17	magenta	Less Saturated
18	cyan	More Blue
19	white (.05)	Darker
20	neutral 8	Darker
21	neutral 6.5	Darker
22	neutral 5	Darker
23	neutral 3.5	Darker
24	black	Darker
	Coral Serenade	Darker
	Belgian Waffle	Darker

Reflection

Cooper White created the code. Cooper and Gian-Mateo made color comparisons about visual color differences between the real and imaged color checker. Gian-Mateo did the report.