

# CST 205 Design Doc

## What are we going to build?

<p>What is the mission of your product?</p> <p>What is the purpose of your product? What is the need? What is your solution?</p>	<p>Create a small program to manipulate images.</p> <p>Includes filters such as:</p> <ul style="list-style-type: none"><li>• Median stacking</li><li>• Colorblind-friendly mode</li><li>• Generating color palettes based on the image</li></ul> <p>It will also hook into Instagram to allow users to upload the finished product.</p>
<p>Who is your target audience?</p> <p>Who will your users be? How will your product serve these people?</p>	<p>Photographers, color blind people</p> <p>Photographers usually are interested in creating a color palette to work with based on a photo they have taken.</p> <p>Colorblind users often can't make out certain details of an image due to their disability, and our program would convert an image to be visible to them</p>
<p>What are the design features?</p> <p>What kind of features will this product have to meet needs of the audience?</p>	<p>Color palette based on one, or more images. Compare the amount of colors from the palettes.</p> <p>'Monochromatic' image filtering.</p> <p>Adjust RGB colors to the various type of color blindness as to present the image in its true color.</p>
<p>What is the user onboarding flow?</p> <p>What will the users see when they open your application? What are the steps that users will go through to use your product?</p>	

## Additional questions

1. Which Python libraries do you plan to use?

NumPy  
Requests  
PIL/Pillow  
Tkinter / Jpython  
Statistics

2. APIs and How You'll Use Them: If you plan to use any APIs (like Twitter, etc.), list them here and describe how you'll use them.

Instagram

3. How will you break down the work? Who will work on what?

Christian Martinez - Requests Library, work with instagram API for uploading images.

Phillip - Extract RGB color; monochrome a color image; adjust RGB color - one or more images

4. What are the milestones for the project?

Milestone 1: Have functional code modules, even though they can include bugs.

Milestone 2: Prototype 1: Have a basic GUI implemented, have modules that are functioning within the GUI, debugging still needed

Milestone 3: Have a functional, and hopefully bug-free project finished.

5. What will the most challenging part be? What do you expect to be the hardest part, and how will you approach it?

Christian Martinez - Comprehending how API's work. I have never tinkered around with any API's in the past.

Phillip - An unknown factor during the process will occur. It is just a matter of when. The most difficult aspect will be my lack of Python knowledge. Although, it is not a major setback because there are ways to get help. I need to remember to do that.