

Creating an LRGB image in Photoshop – Beginner’s Instruction sheet

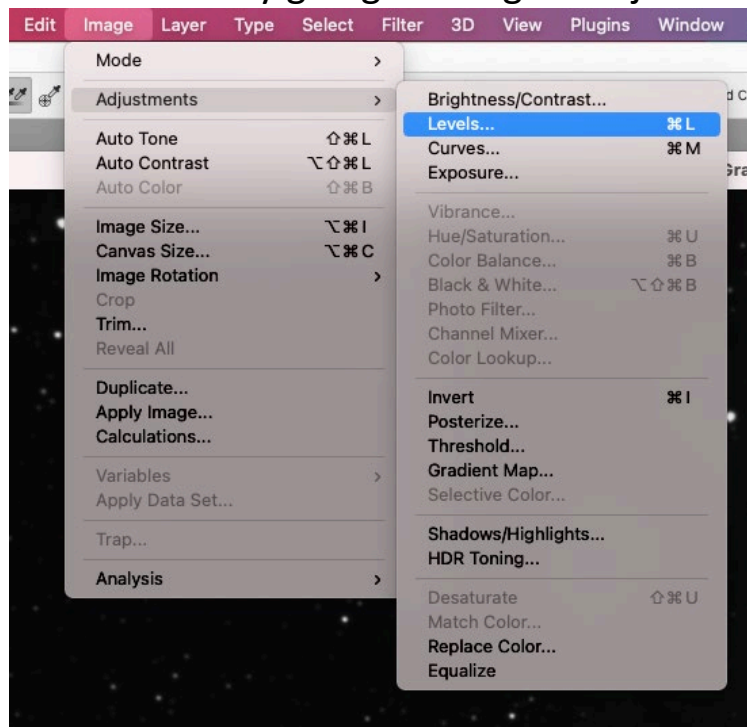
1. Open the clear picture as a TIFF file. This will be the luminance layer.
2. Adjust the levels of the picture several times until the detail you want is visible. You should use mainly the grey toggle to reveal detail and the black toggle to keep the sky black.
3. Apply the unsharp mask, ideal settings are amount 150%, pixels less than 1.
4. Change the image mode of the clear picture to RGB.
5. Open the red, green and blue pictures and adjust their levels in the same way as the clear image until you are happy with the results.
6. Open a new RGB file.
7. Copy and paste the red, green and blue pictures into the correct **channel** in the new file.
8. Adjust each channel by moving or rotating so that the stars are sitting on top of each other. You may want to only view two channels at a time to help with this.
9. Adjust the hue and saturation until you are happy with the colour.
10. Copy and paste the luminance (clear) layer into the **layers** section of the new picture. Set the blending mode to luminosity.

Creating an LRGB image in Photoshop – Beginner’s Tutorial

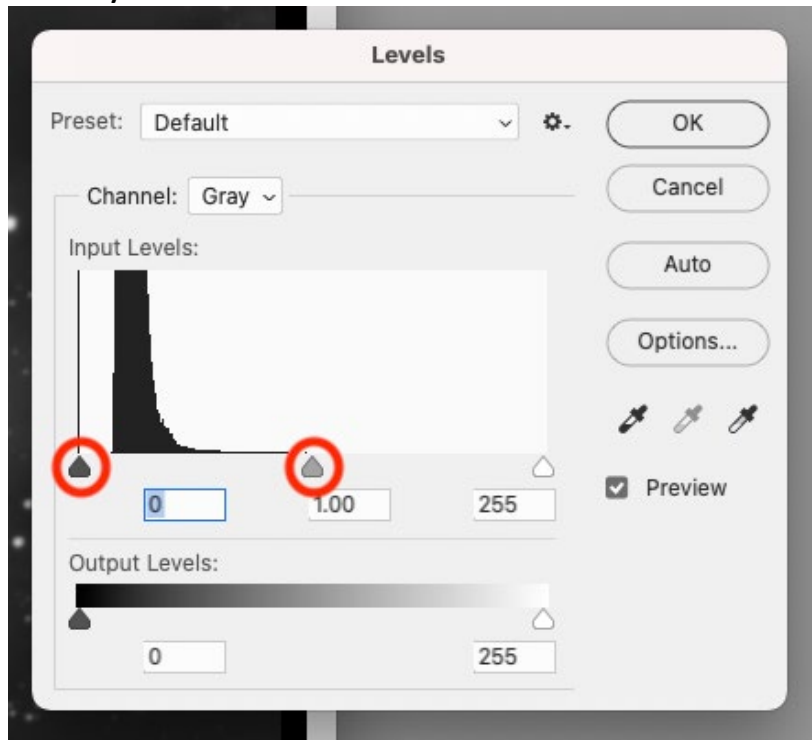
1. Once you have used FITS liberator to turn your files into TIFF files, open your luminance or clear file with photoshop. It should be grayscale.



2. Open the levels tool by going to Image > Adjustments > Levels



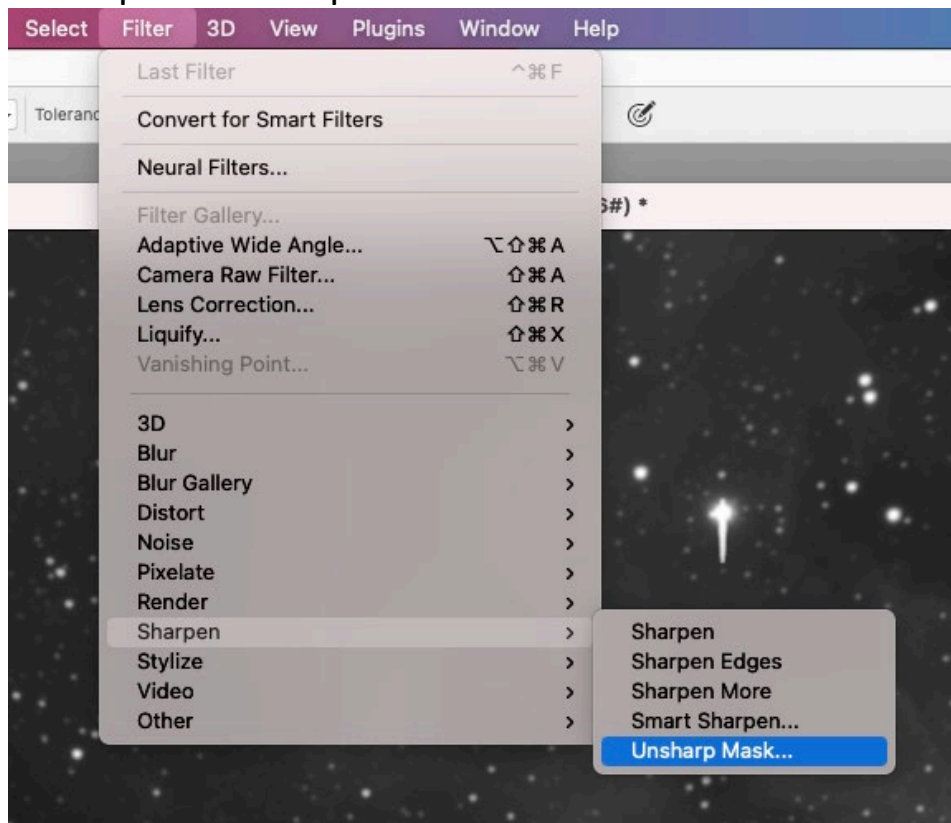
Use the levels tool to reveal details in the picture. This should be done by mainly moving the grey toggle and then the black toggle to make sure the sky is black.



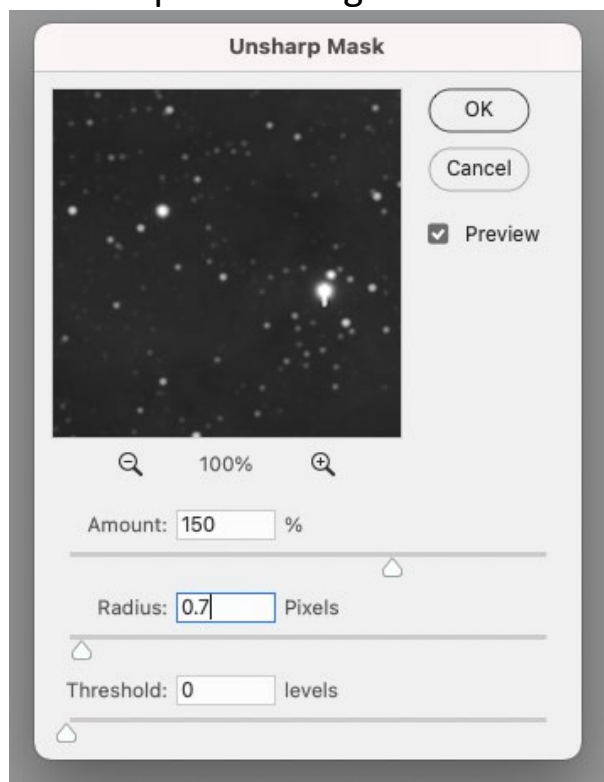
You may need to repeat this process several times until you have a picture you like.



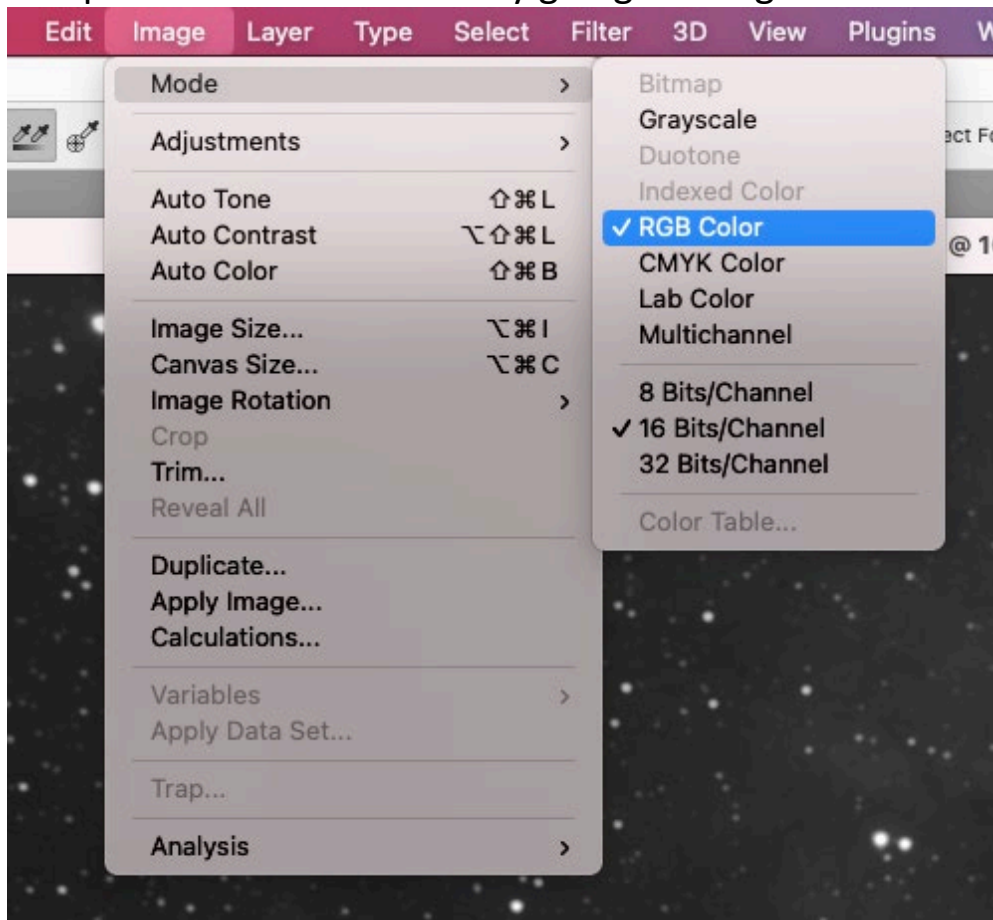
- Put an unsharp mask on the image. You can find this in Filter>Sharpen>Unsharp Mask



For pictures with SPIRIT, the unsharp mask works best at amount 150% and the pixel setting at less than 1.



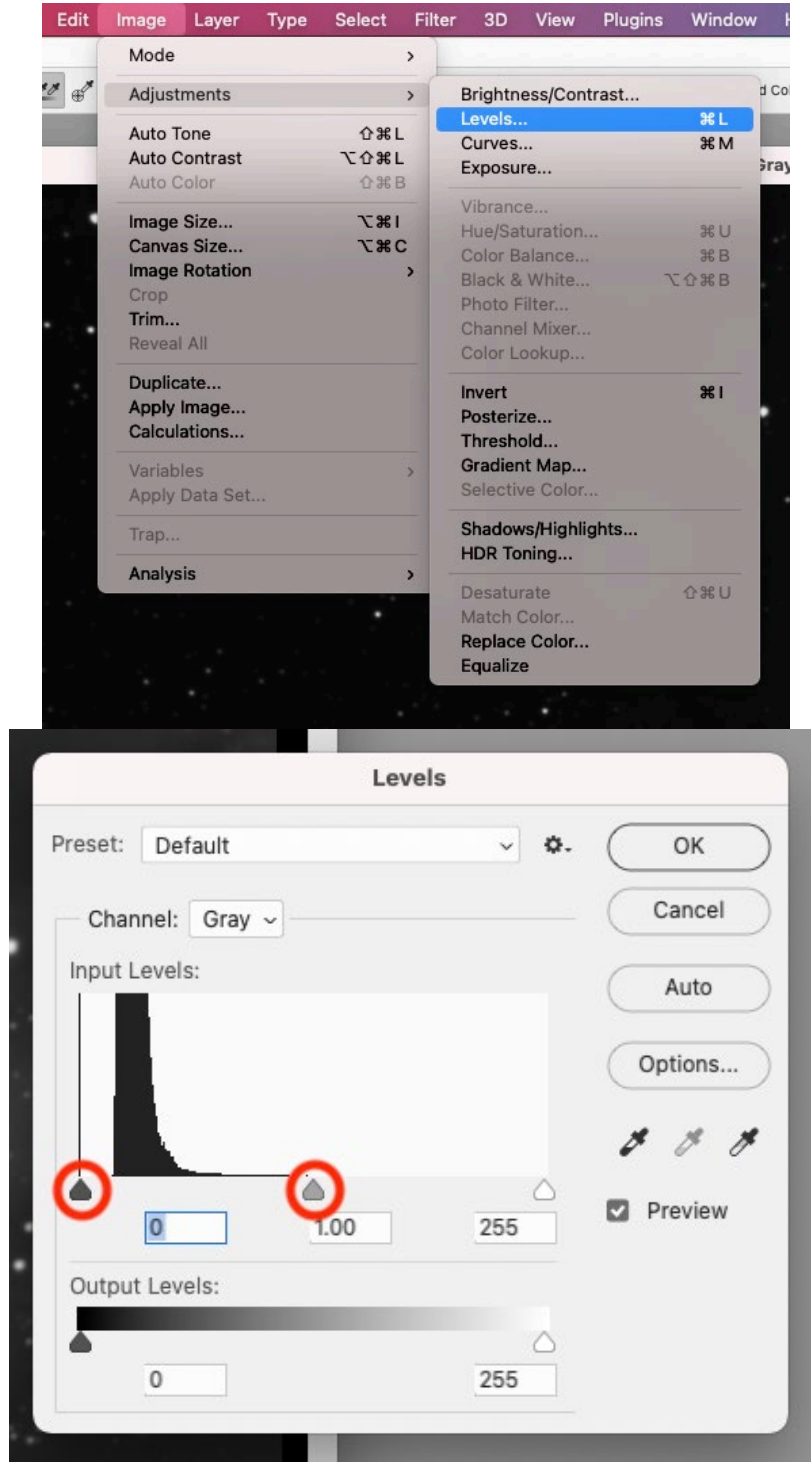
4. Put the picture into RGB mode by going to Image > Mode > RGB



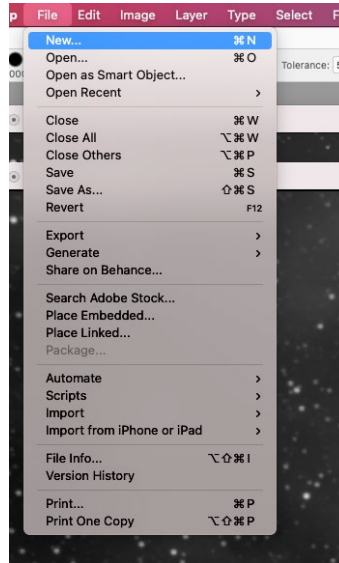
5. Open the red, green and blue filtered images.



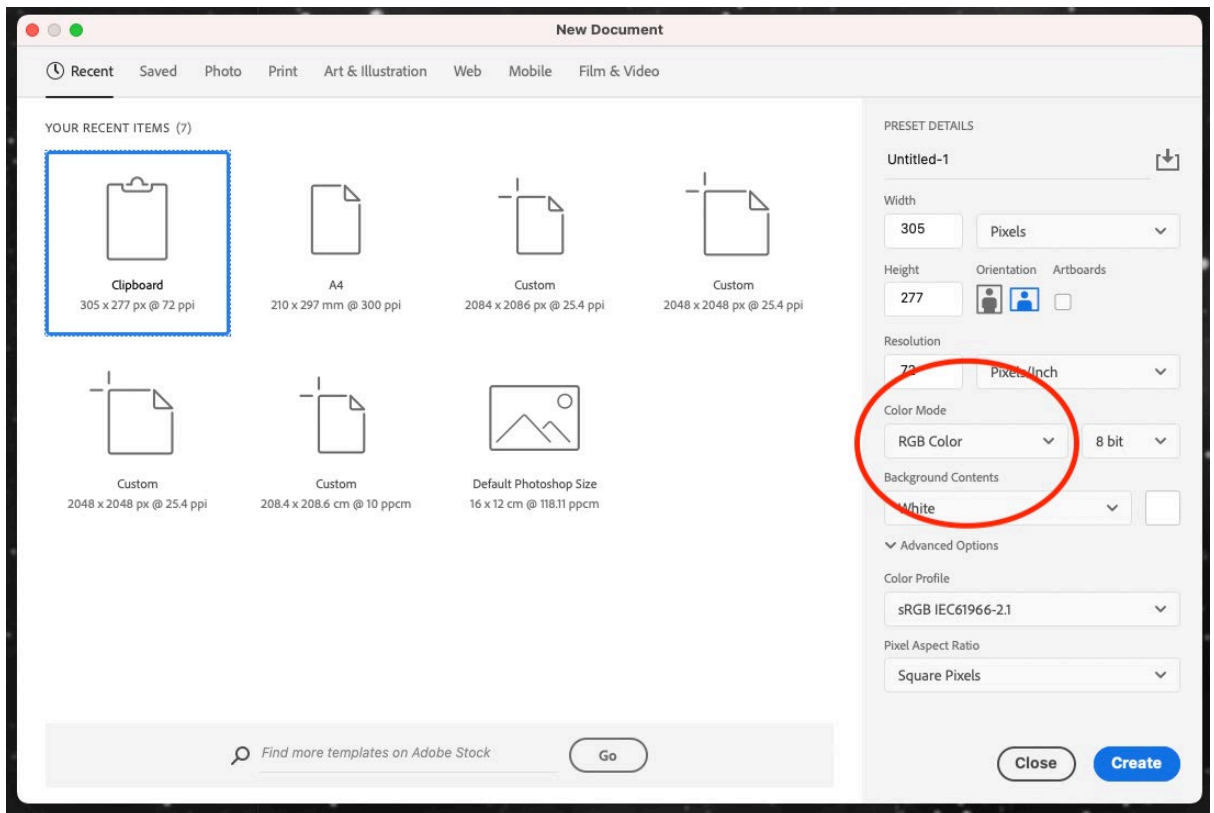
Adjust their levels in the same way as the luminance layer. You may want to record the changes so that you can adjust each colour the same, or adjust them until you are happy with each one.



6. Once you are happy with your red, green and blue images open a new document by going to File > New



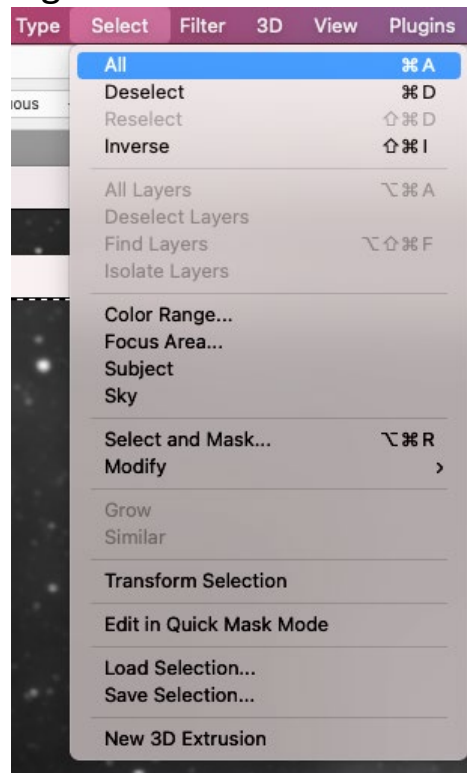
Your size should be the same as your red image, the mode must be set to RGB.



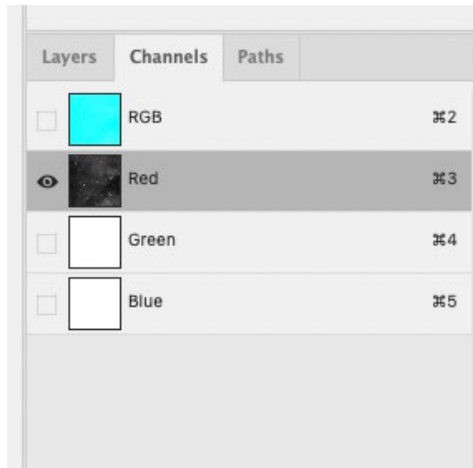
7. Make sure you have the channels menu open on the right hand side of your screen.



On your red picture go to Select > All

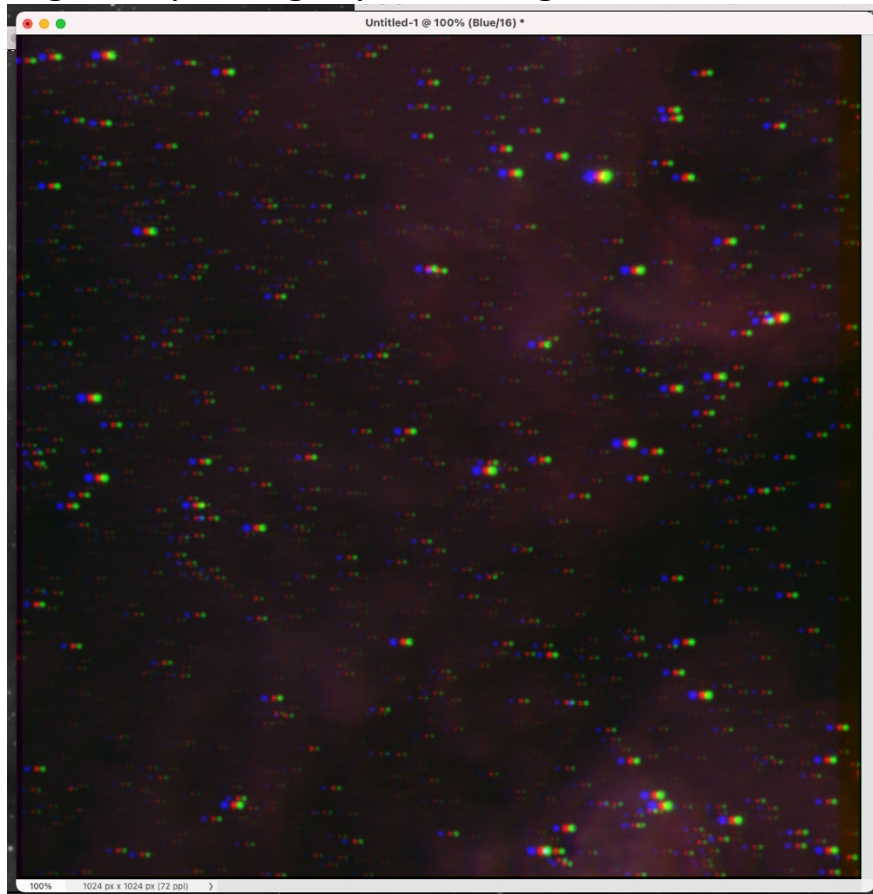


Then copy and paste into the **red channel** on your new image



Do the same with your green and blue images, by copying them into the right channel.

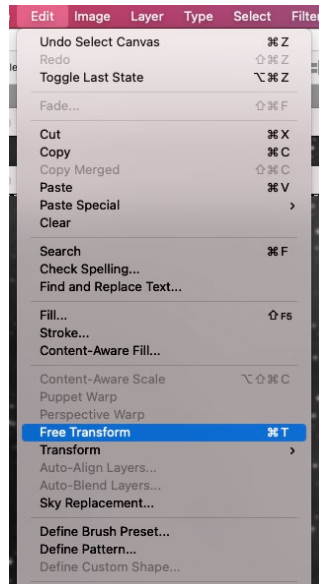
8. Your images may be slightly out of alignment.



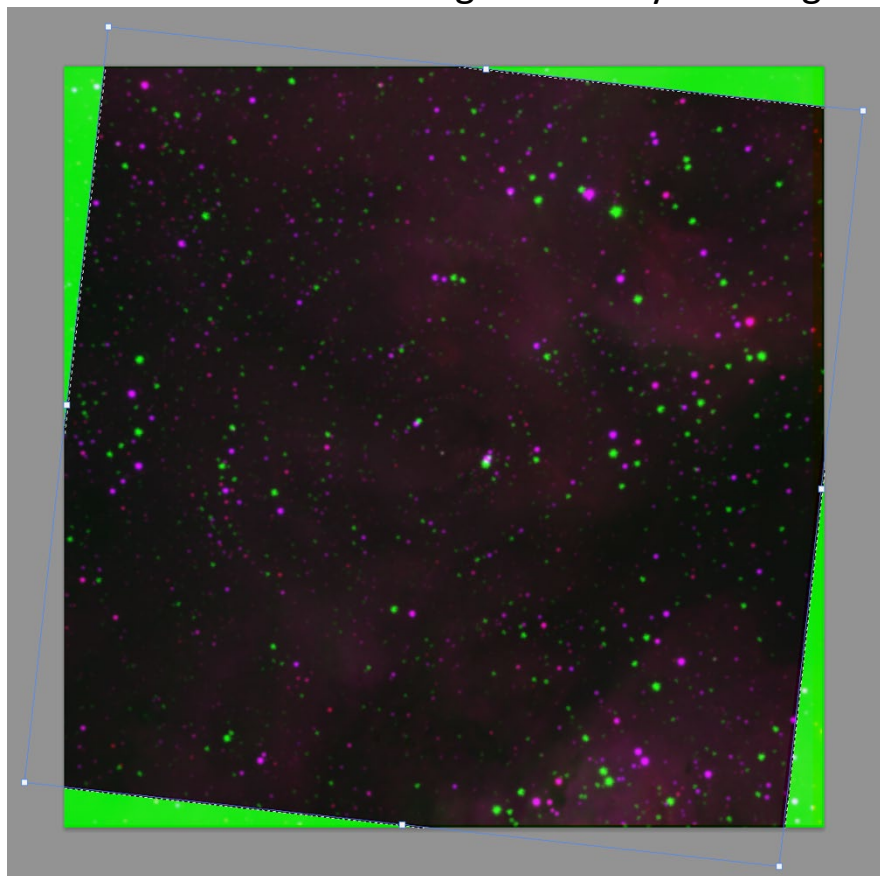
You can align them by clicking on two channels at a time and moving them until they match up. You can use your arrow keys to make small adjustments.

At times, particularly with SPIRIT 6, you may need to rotate some of the images to make them match up.

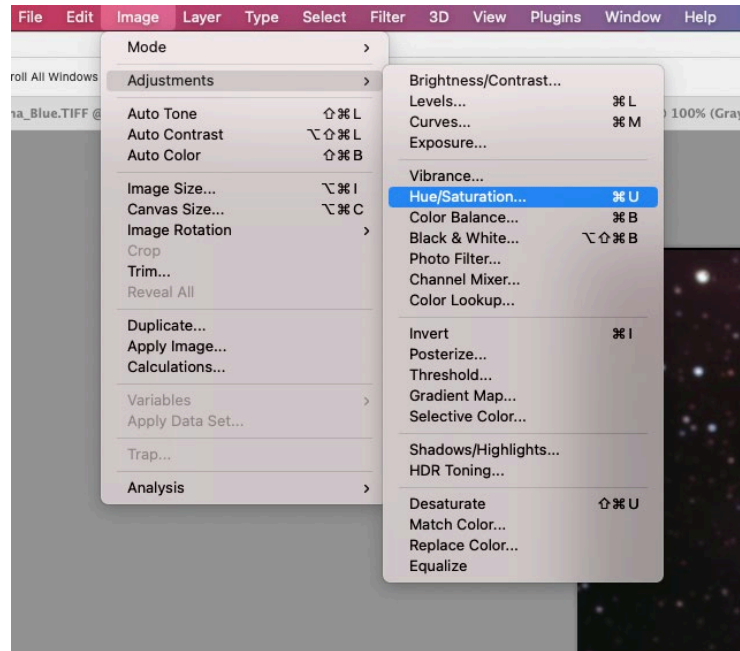
To rotate your images, select a channel and then go to Edit > Free Transform



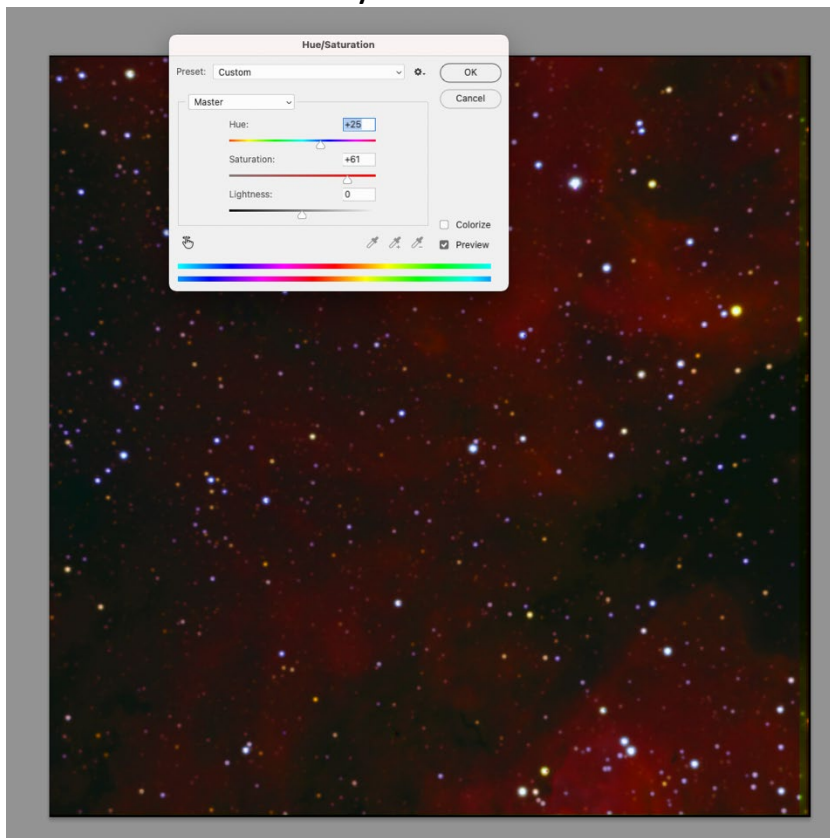
Move your mouse through the corner of your image and you will then be able to click and drag to rotate your image.



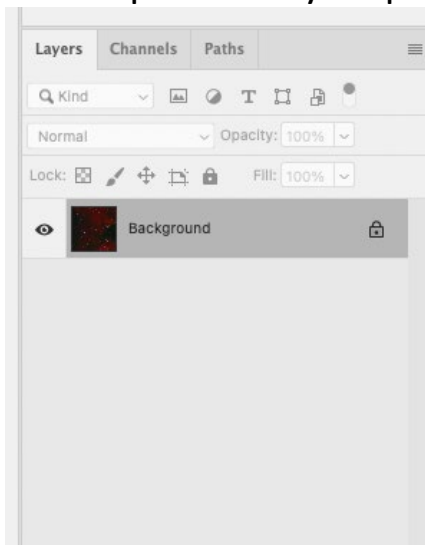
9. Once you have your picture lined up it is time to adjust the hue and saturation. Make sure you have RGB selected in the channels section and then go to Image > Adjustments > Saturation



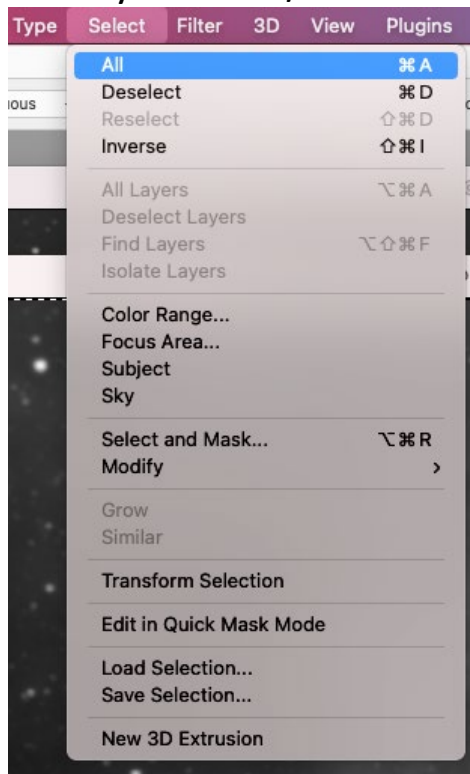
Move the sliders on hue and saturation until you are happy with the outcome. It is ok to oversaturate the picture slightly to allow for the luminance layer.



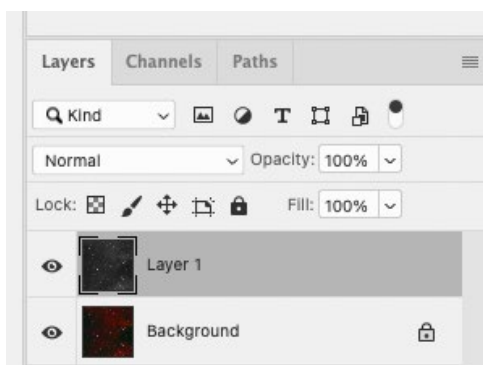
10. Open the layers panel on the bottom right hand side.



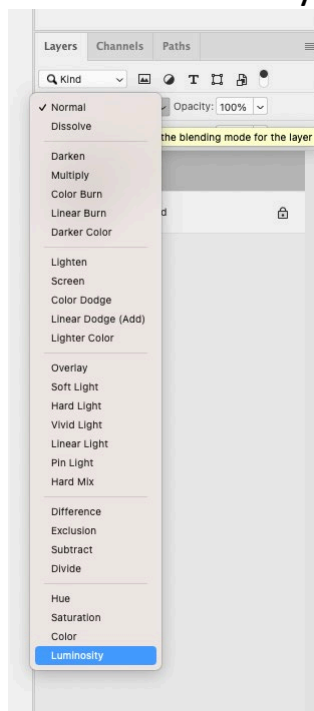
Go to your clear/luminance image and go to Select>All



Copy and paste into your new image.



Change the blending mode to luminosity.



Your picture is now complete. You can continue to adjust levels, hue and saturation.

