## **Demosaicing**



Image:1 (Result of both part 1 and part 2)

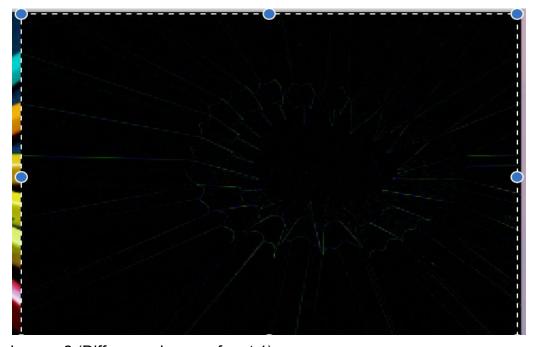


Image: 2 (Difference Image of part 1)



Image: 3 (demosaic of part 1 closeup look)

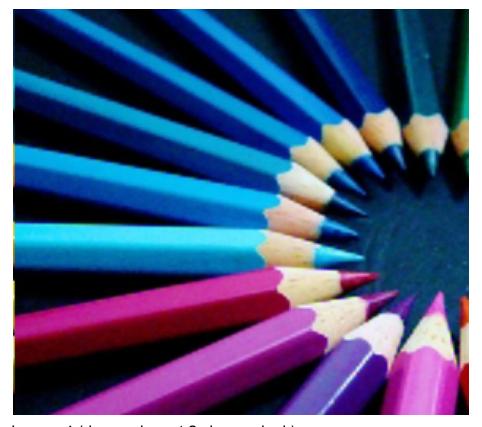


Image: 4 (demosaic part 2 closeup look)

Image 1 is the output of both part 1 and part 2. Image 2 is the closeup look of the difference between part 1 images (original and demosaic). Image 3 is the closeup look of a demosaic image of part 1. Image 4 is the closeup look of a demosaic image of part 2.

## Q: A close-up of some patch of the reconstructed image where the artifacts are particularly apparent and explain the cause of these artifacts:

I can see the difference in an artifact in Image 3's blue color (as well as in green also but I haven't taken closeup image of that) where the edges are bit blur though it's not a major difference, on the other hand, the red color channel has very less impact on edges. The demosaic image looks the same as the original image in that particular area for Part 1 for red color. This point we can also see in Image 2, the difference image. On the place of red color, it is totally black difference means the image is totally the same as the original image at that point.

For Part 2, I can't see a significant difference in artifacts, though at the same place I can feel it is a bit smooth on edges due to the median filter. Other than that what I feel for part 1 (as mentioned in the above paragraph) the same thing we can see for part 2 also.