# Matlab

To run the Matlab code download the folder as it is. All paths are relative so there is no need to change paths in the code. Here is a brief description of each code

- notch_filter.m - It runs to code to remove periodic noise from noiseball.png
- notch.m - This code implements notch filter
- notch_news.m - It runs the code to remove moire pattern from a newspaper clipping
- motion_blur.m - Implements the model of motion blur
- atmospheric_turbelence.m - Implements the model of atmospheric turbulence
- add_motion_blur.m - Adds motion blur to the image
- add_turebelence.m - Adds atmospheric turbulence to the image
- remove_motion_blur.m - Removes motion blur by using Weiner filtering
- remove_motion_blur_limited.m - Removes motion blur by limiting the value of degradation function
- remove_turbelence.m - Removes atmospheric turbulence from the image using Weiner filtering
- dftuv.m - Function taken from CS425 Lab: Frequency Domain Processing. It is used to calculate the distance in shifted Fourier Transform
- lpfilter.m - Function taken from CS425 Lab: Frequency Domain Processing. It implements different kinds of low pass filters.