IMPR 2017 - Exercise #4

Task 5c: Image filtering in the frequency domain

The filter which causes the ringing artifact is binary filter, since the Fourier convolution results in a sinc function. The sinc function's waves in the frequency domain are higher around sharp changes in the spatial domain, so in the spatial domain waves can be seen around the object (mainly, the photographer). The Gaussian blurring filter avoids those 'rings', since it's Fourier convolution function in the frequency domain is smooth.