
```

function [filteredIMG] = convolution(image, mask)
    i = 1;
    j = 1;
    k = 1;
    l = 1;

    [maskM, maskN]=size(mask);
    [M,N] = size(image);

    if (mod(maskM,2) == 0)
        sprintf('error, i only support odd dimension masks currently')
        %easiest way to do this is to just add another row to make it odd,
        %although this might not be the 'best' option.
        return
    elseif (mod(maskN,2) == 0)
        sprintf('error, i only support odd dimension masks currently,')
        return
    end
    maskCenterRow=ceil(maskM/2);
    maskCenterCol=ceil(maskN/2);

    %initialize filtered image
    newIMG = zeros(size(image));
    filteredIMG = im2uint8(newIMG);

    %convolve!
    for i=1:M;
    for j=1:N;
    for k=1:maskM;
    for l=1:maskN;
        if ((i+(k-maskCenterRow) > 0) &&...
            (j+(l-maskCenterCol) > 0)) &&...
            ((i+(k-maskCenterRow) <= M) &&...
            (j+(l-maskCenterCol) <= N))
            filteredIMG(i,j) =...
                filteredIMG(i,j) + ...
                (image(i+(k-maskCenterRow),...
                    j+(l-maskCenterCol))*mask(k,l));
        end
    end
    end
    end
    end

    Error using convolution (line 8)
    Not enough input arguments.

```

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