```matlab
img = imread('image1.jpg');
grayImg = rgb2gray(img);

% Create a binary mask for the region of interest
roi = grayImg > 100;

% Apply lowpass filters
gaussianFiltered = imgaussfilt(grayImg, 2); % Gaussian filter
averageFiltered = filter2(fspecial('average', [5 5]), grayImg) / 255; %
Average filter

% Apply highpass filters
laplacianFiltered = imfilter(grayImg, fspecial('laplacian'));
prewittFiltered = edge(grayImg, 'prewitt');

% Display the results
subplot(231), imshow(roi), title('Binary Mask');
subplot(232), imshow(gaussianFiltered), title('Gaussian Filter');
subplot(233), imshow(averageFiltered), title('Average Filter');
subplot(234), imshow(laplacianFiltered), title('Laplacian Filter');
subplot(235), imshow(prewittFiltered), title('Prewitt Filter');
```

Binary Mask

Gaussian Filter

Average Filter

Laplacian Filter

Prewitt Filter

1