```matlab
lowres = imread('images/IMAGE006.jpg');
highres = imread('images/IMAGE008.jpg');
filter_blue = imread('images/IMAGE012.jpg');
filter_purple = imread('images/IMAGE011.jpg');

lowres = rgb2gray(lowres);
highres = rgb2gray(highres);
filter_blue = rgb2gray(filter_blue);
filter_purple = rgb2gray(filter_purple);
```
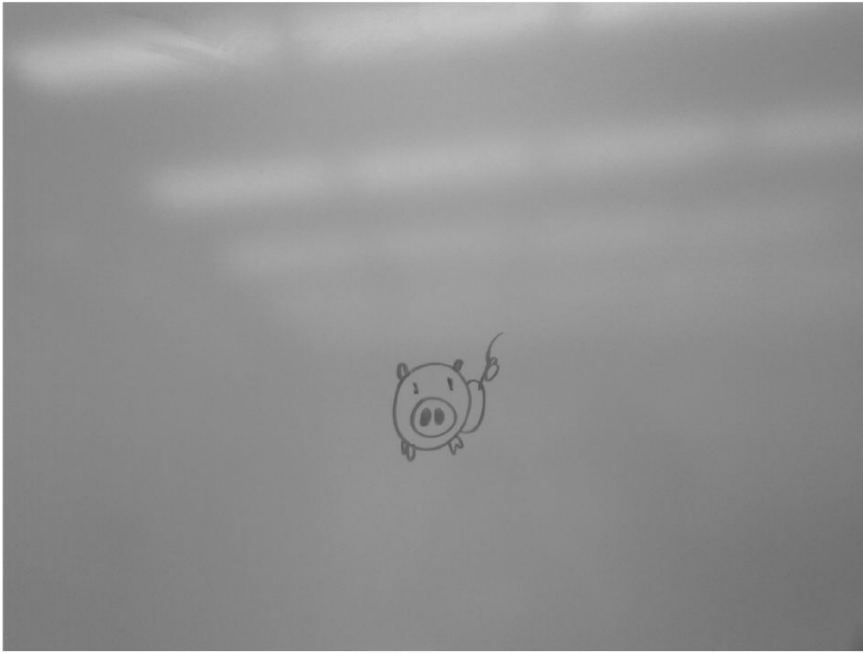
```matlab
imshow(lowres)
```
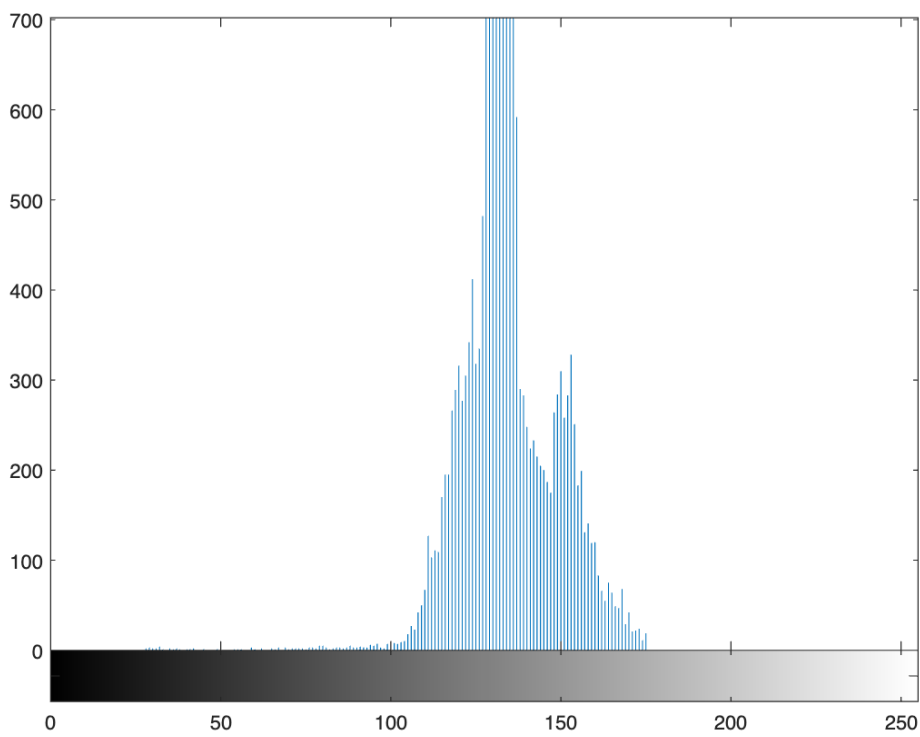


```matlab
imshow(highres)
```

```
imshow(filter_purple)
```

```
imshow(filter_blue)
```



```
imhist(lowres)
```

```
% threshold = 147/255;
bw_lowres1 = imbinarize(lowres, 120/255);
bw_lowres2 = imbinarize(lowres, 130/255);
imshow(bw_lowres1)
```
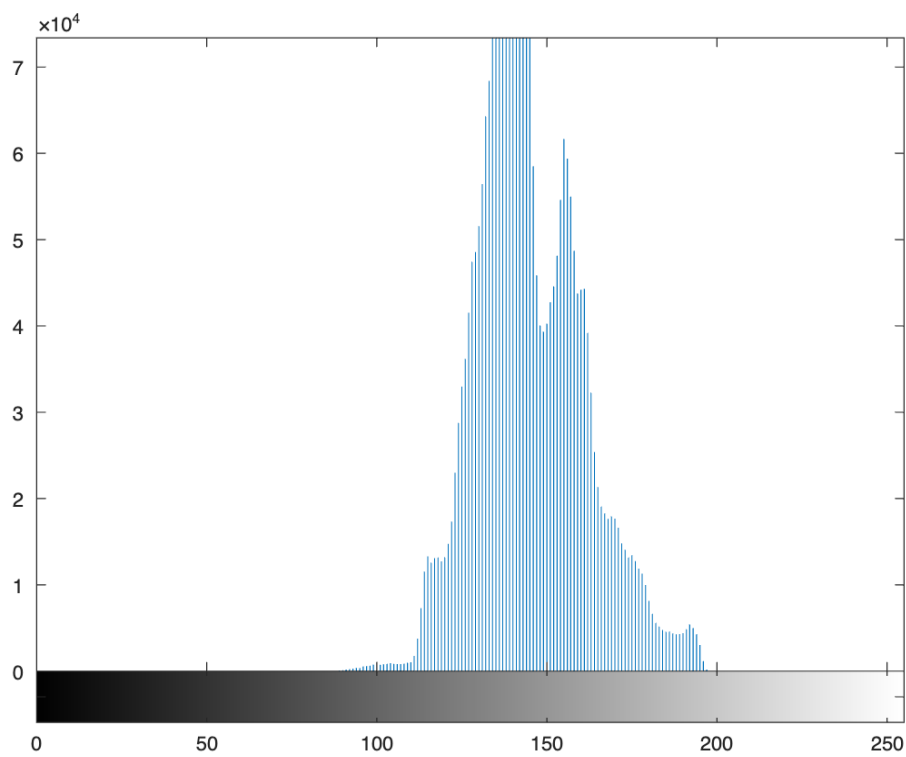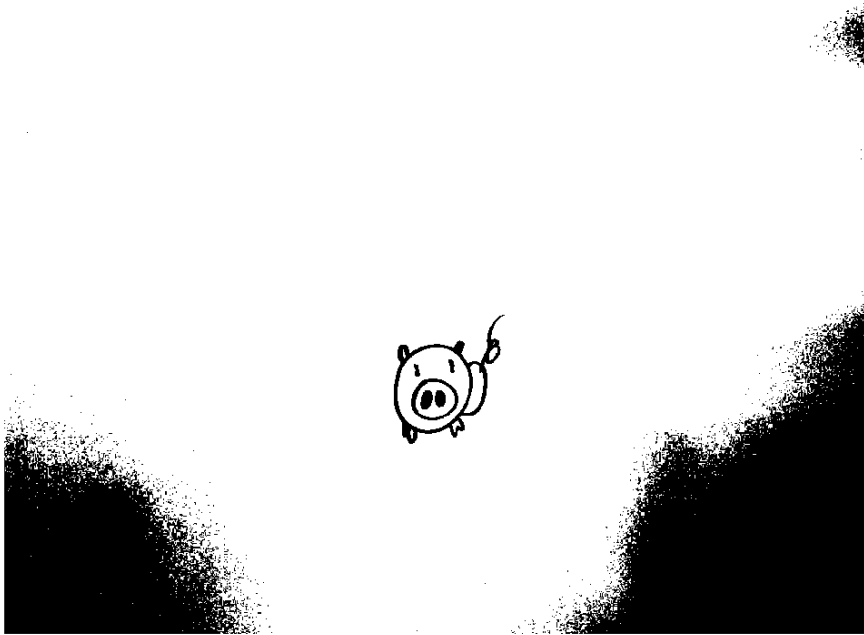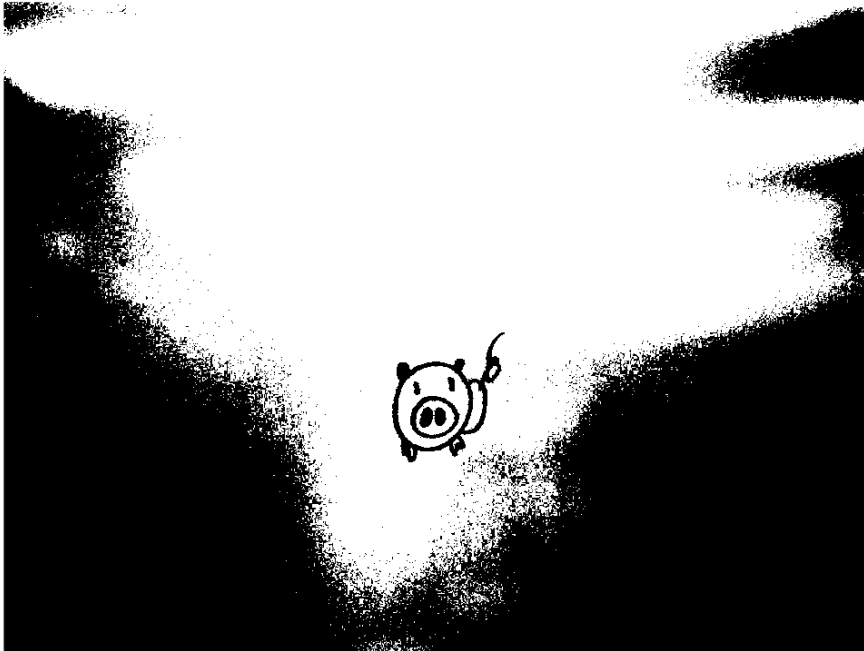
```
imshow(bw_lowres2)
```

```
imhist(highres)
```


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```
threshold = 10;
bw_highres1 = imbinarize(highres, 131/255);
bw_highres2 = imbinarize(highres, 140/255);
bw_highres3 = imbinarize(highres, 149/255);

imshow(bw_highres1)
```
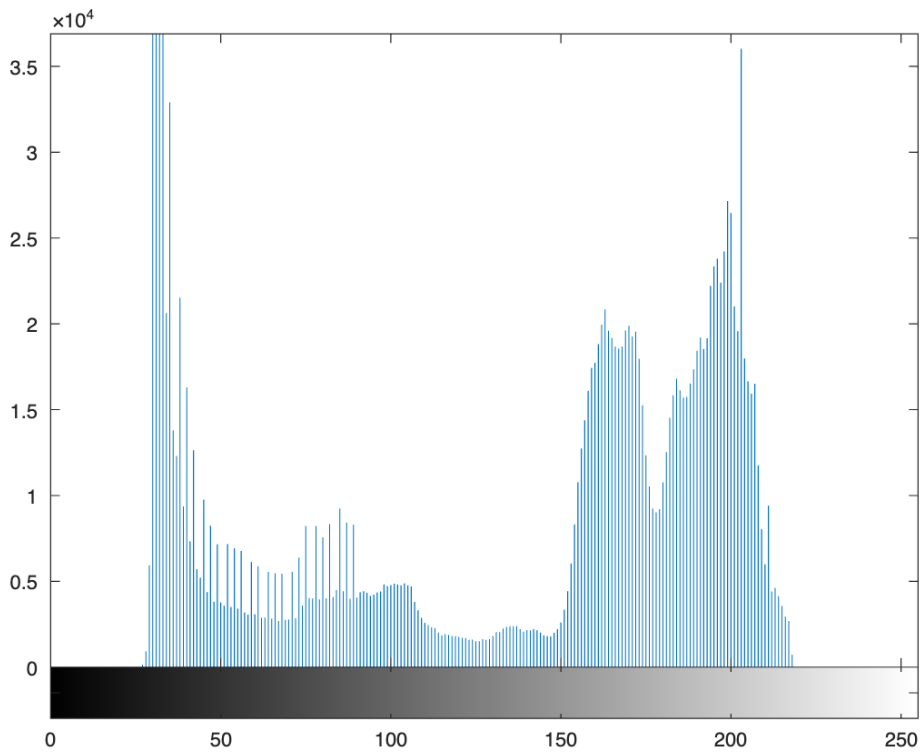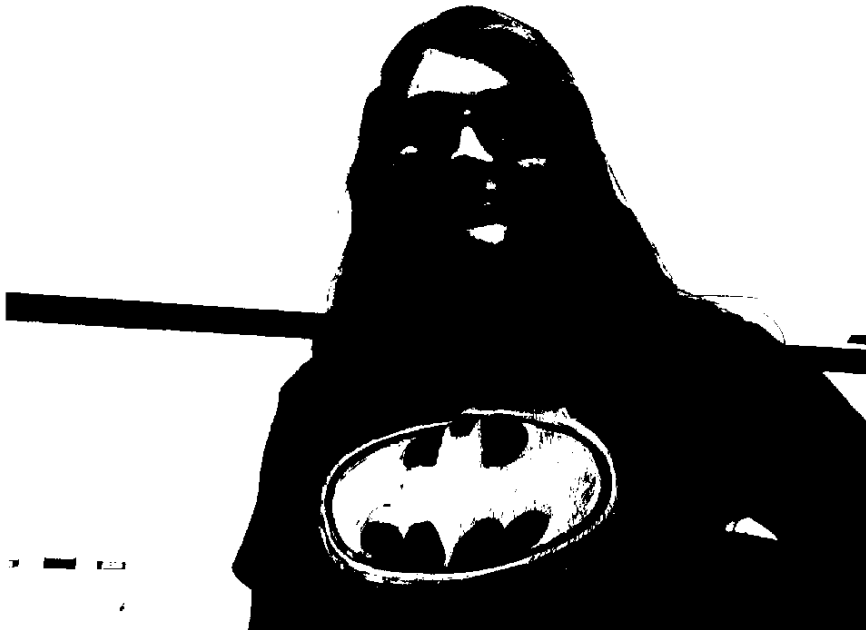


```
imshow(bw_highres2)
```

```
imshow(bw_highres3)
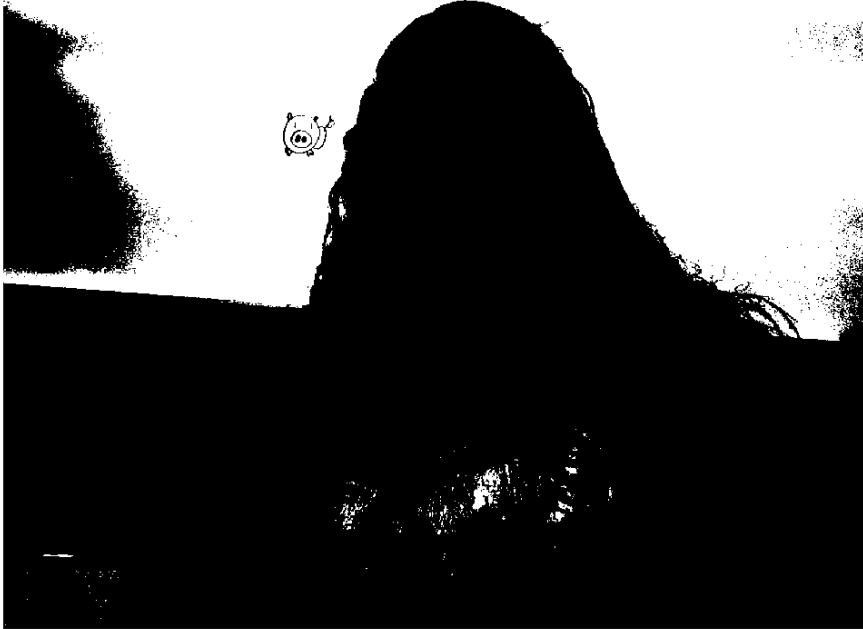```



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```
imhist(filter_blue)
```



```
bw_blue1 = imbinarize(filter_blue, 117/255);
bw_blue2 = imbinarize(filter_blue, 150/255);
bw_blue3 = imbinarize(filter_blue, 179/255);

imshow(bw_blue1)
```
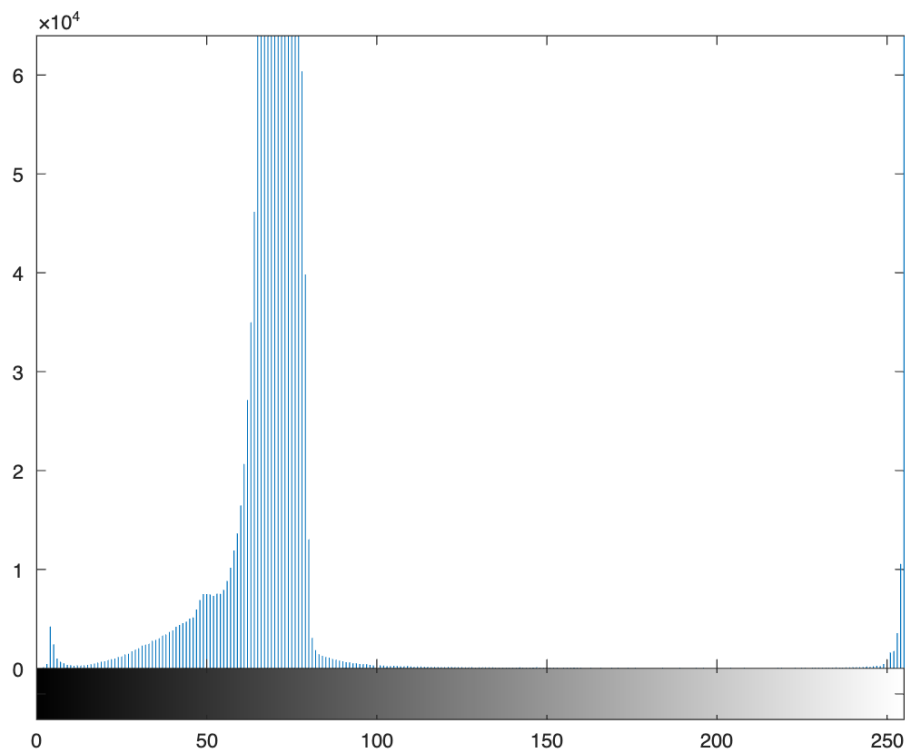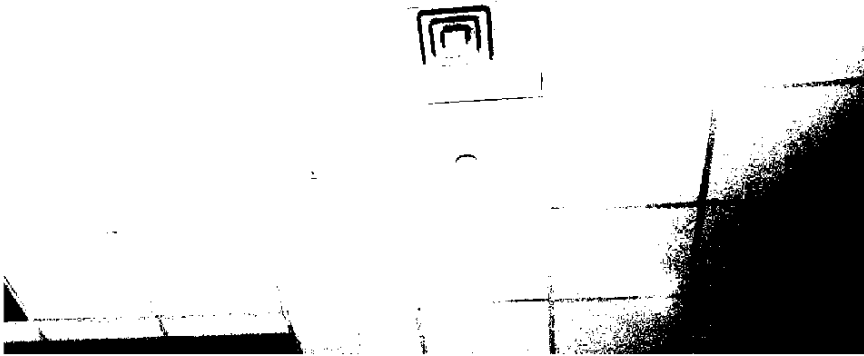
```
imshow(bw_blue2)
```
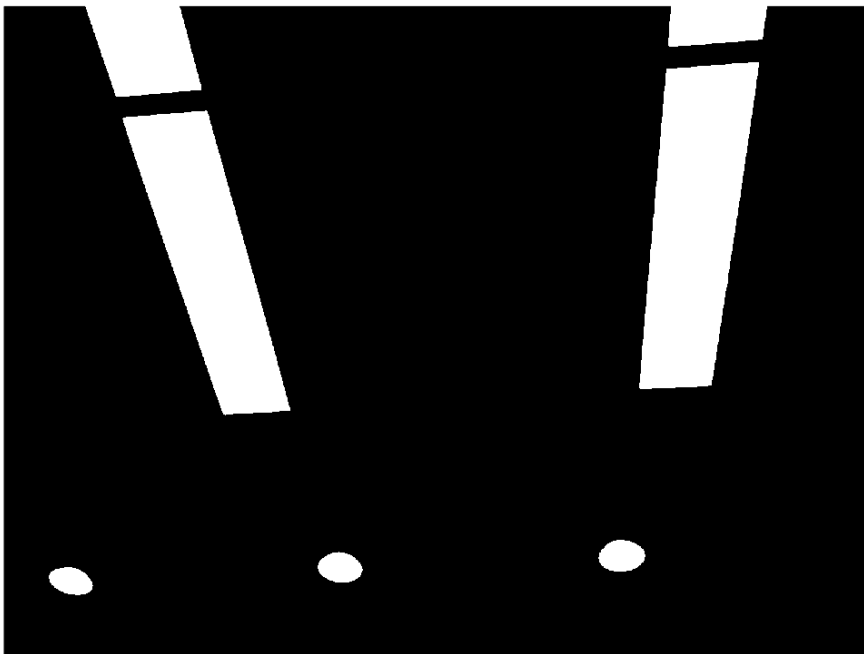
```
imshow(bw_blue3)
```



```
imhist(filter_purple)
```

```
bw_purple1 = imbinarize(filter_purple, 57/255);
bw_purple2 = imbinarize(filter_purple, 150/255);
bw_purple3 = imbinarize(filter_purple, 230/255);

imshow(bw_purple1)
```

```
imshow(bw_purple2)
```


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```
imshow(bw_purple3)
```