## HW2: Problem 2 Ian Dover

# 1 Convert Image to Greyscale

Image converted to greyscale:



Figure 1: Greyscale image.

## 2 Part 1

## 2.1 Sobel Threshold: 10

Use the sobel operator on the image with a threshold of 10:



Figure 2: Sobel threshold of 10.

## 2.2 Sobel Threshold: 50

Use the sobel operator on the image with a threshold of 50:



Figure 3: Sobel threshold of 50.

#### 2.3 Sobel Threshold: 100

Use the sobel operator on the image with a threshold of 100:  $\,$ 



Figure 4: Sobel threshold of 100.

#### 2.4 Sobel Threshold: 150

Use the sobel operator on the image with a threshold of 150:



Figure 5: Sobel threshold of 150.

#### 2.5 Sobel Threshold: 200

Use the sobel operator on the image with a threshold of 200:



Figure 6: Sobel threshold of 200.

#### 2.6 Sobel Threshold: 255

Use the sobel operator on the image with a threshold of 255:



Figure 7: Sobel threshold of 255.

## 3 Part 2

## 3.1 Prewitt Threshold: 10

Use the prewitt operator on the image with a threshold of 10:

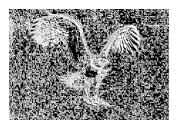


Figure 8: Prewitt threshold of 10.

## 3.2 Prewitt Threshold: 50

Use the prewitt operator on the image with a threshold of 50:



Figure 9: Prewitt threshold of 50.

#### 3.3 Prewitt Threshold: 100

Use the prewitt operator on the image with a threshold of 100:



Figure 10: Prewitt threshold of 100.

#### 3.4 Prewitt Threshold: 150

Use the prewitt operator on the image with a threshold of 150:



Figure 11: Prewitt threshold of 150.

#### 3.5 Prewitt Threshold: 200

Use the prewitt operator on the image with a threshold of 200:



Figure 12: Prewitt threshold of 200.

#### 3.6 Prewitt Threshold: 255

Use the prewitt operator on the image with a threshold of 255:



Figure 13: Prewitt threshold of 255.