```
Python 3.6.2 |Anaconda, Inc.| (default, Sep 19 2017, 08:03:39) [MSC v.1900 64 bit
(AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 6.1.0 -- An enhanced Interactive Python.

Restarting kernel...
```

```
Kernel died, restarting
```

```
Kernel died, restarting
```

```
In [1]:

In [1]:

In [1]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
[[[ 255.  255.  255.]
  [ 255.  255.  255.]
  [ 255.  255.  255.]
  ...,
  [ 255.  255.  255.]
  [ 255.  255.  255.]
  [ 255.  255.  255.]]

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  [ 255.  255.  255.]
  [ 255.  255.  255.]
  ...,
  [ 255.  255.  255.]
  [ 255.  255.  255.]
  [ 255.  255.  255.]]

 [[ 255.  255.  255.]
  [ 255.  255.  255.]
  [ 255.  255.  255.]
  ...,
  [ 255.  255.  255.]
  [ 255.  255.  255.]
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  ...,
  [ 255.  255.  255.]
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 [[ 255.  255.  255.]
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```
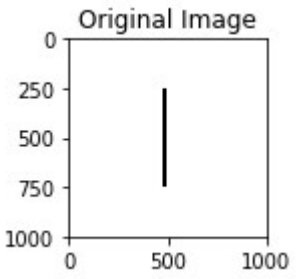
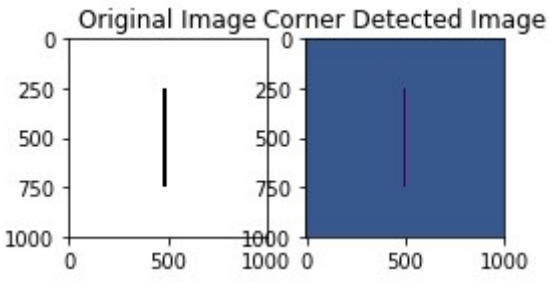

```
  [ 255.  255.  255.]
  ...,
  [ 255.  255.  255.]
  [ 255.  255.  255.]
  [ 255.  255.  255.]]

 [[ 255.  255.  255.]
  [ 255.  255.  255.]
  [ 255.  255.  255.]
  ...,
  [ 255.  255.  255.]
  [ 255.  255.  255.]
  [ 255.  255.  255.]]]
Traceback (most recent call last):

  File "<ipython-input-1-a10b0e7b4f46>", line 1, in <module>
    runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/Program
Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/University/
Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\spyder\utils\site\sitecustomize.py",
line 710, in runfile
    execfile(filename, namespace)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\spyder\utils\site\sitecustomize.py",
line 101, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)

  File "C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/Program
Files/FibreLengthAnalysis/Code/main.py", line 71, in <module>
    corners = cv2.cornerHarris(imageConverted, 2, 3, 0.04)

error: C:\bld\opencv_1506447021968\work\opencv-3.3.0\modules\imgproc\src\corner.cpp:269:
error: (-215) src.type() == CV_8UC1 || src.type() == CV_32FC1 in function
cv::cornerEigenValsVecs
```

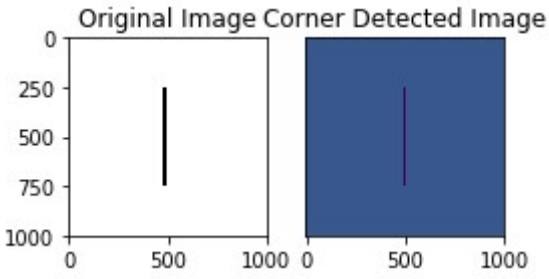



```
In [2]:

In [2]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
[[ 255.  255.  255. ...,  255.  255.  255.]
 [ 255.  255.  255. ...,  255.  255.  255.]
 [ 255.  255.  255. ...,  255.  255.  255.]
 ...,
 [ 255.  255.  255. ...,  255.  255.  255.]
 [ 255.  255.  255. ...,  255.  255.  255.]
 [ 255.  255.  255. ...,  255.  255.  255.]]
Traceback (most recent call last):
```

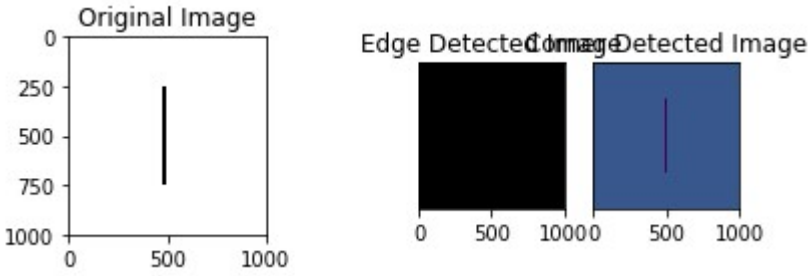
```
  File "<ipython-input-2-a10b0e7b4f46>", line 1, in <module>
    runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/Program
Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/University/
Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\spyder\utils\site\sitecustomize.py",
line 710, in runfile
    execfile(filename, namespace)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\spyder\utils\site\sitecustomize.py",
line 101, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)

  File "C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/Program
Files/FibreLengthAnalysis/Code/main.py", line 75, in <module>
    plt.title("Corner Detected Image"), plt.yaxis([])

AttributeError: module 'matplotlib.pyplot' has no attribute 'yaxis'
```




```
In [3]:

In [3]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
[[ 255.  255.  255. ...,  255.  255.  255.]
 [ 255.  255.  255. ...,  255.  255.  255.]
 [ 255.  255.  255. ...,  255.  255.  255.]
 ...,
 [ 255.  255.  255. ...,  255.  255.  255.]
 [ 255.  255.  255. ...,  255.  255.  255.]
 [ 255.  255.  255. ...,  255.  255.  255.]]
```

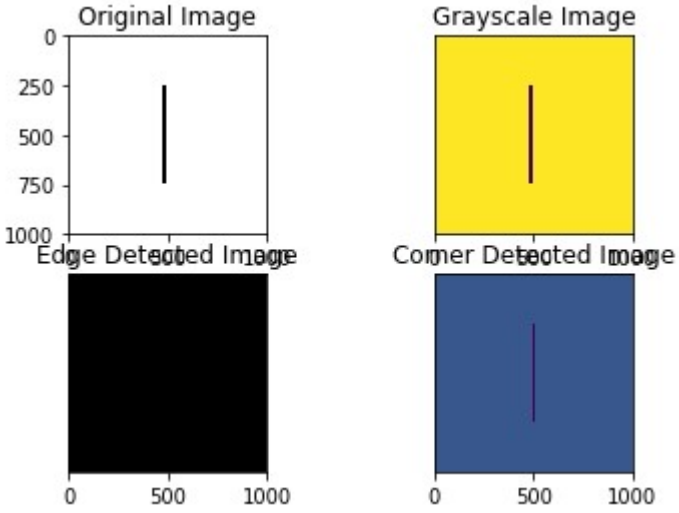



```
<matplotlib.figure.Figure at 0x1bd2bea55f8>

In [4]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
```



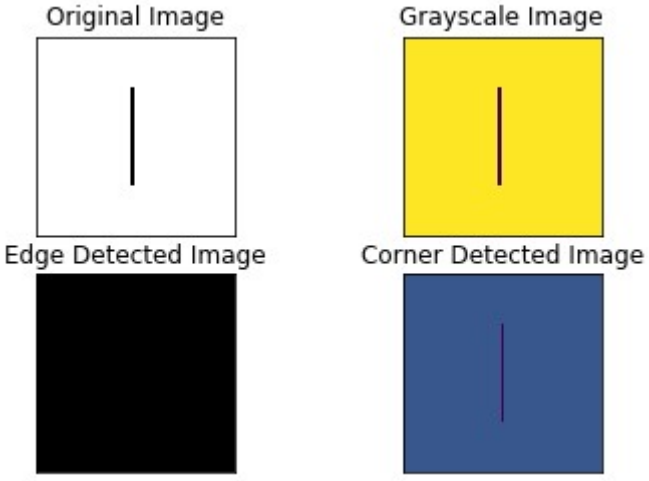
<matplotlib.figure.Figure at 0x1bd2c1bc2b0>

```
In [5]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
```



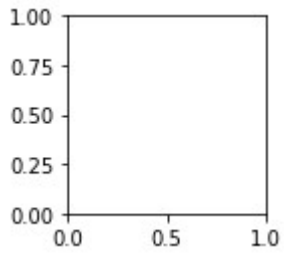
<matplotlib.figure.Figure at 0x1bd2befccc0>

```
In [6]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
```

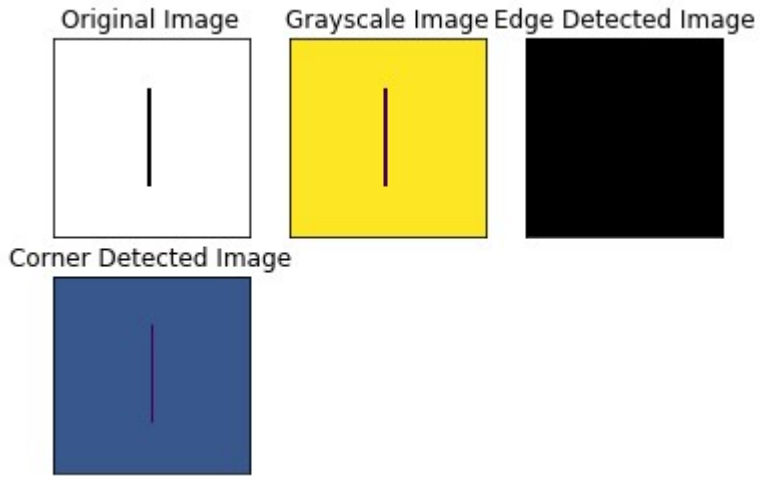


<matplotlib.figure.Figure at 0x1bd2bf53358>

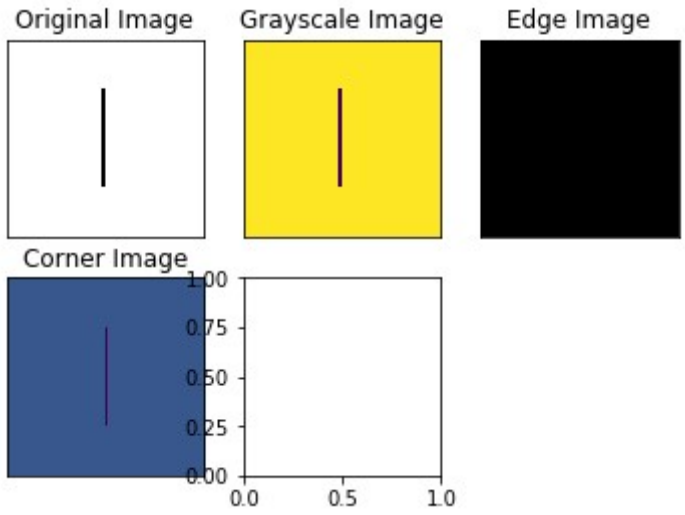
```
In [7]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')
```




```
Please input filename to be analysed: simple test image (25,500 fibre).jpgTraceback (most
recent call last):

  File "<ipython-input-7-a10b0e7b4f46>", line 1, in <module>
    runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/Program
Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/University/
Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\spyder\utils\site\sitecustomize.py",
line 710, in runfile
    execfile(filename, namespace)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\spyder\utils\site\sitecustomize.py",
line 101, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)

  File "C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/Program
Files/FibreLengthAnalysis/Code/main.py", line 50, in <module>
    plt.imshow(image) #Shows the image in the IPython console test purposes

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\matplotlib\pyplot.py", line 3157, in
imshow
    **kwargs)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\matplotlib\__init__.py", line 1898,
in inner
    return func(ax, *args, **kwargs)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\matplotlib\axes\_axes.py", line
5124, in imshow
    im.set_data(X)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\matplotlib\image.py", line 596, in
set_data
    raise TypeError("Image data can not convert to float")

TypeError: Image data can not convert to float


In [8]:

In [8]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
```

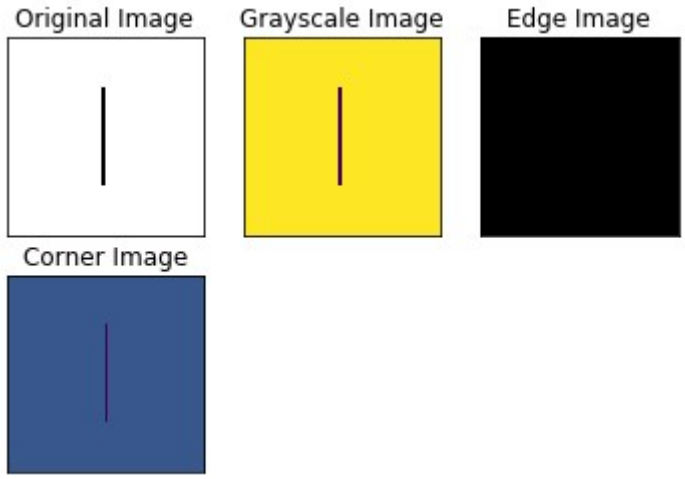



```
<matplotlib.figure.Figure at 0x1bd2cd62240>

In [9]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
Traceback (most recent call last):

  File "<ipython-input-9-a10b0e7b4f46>", line 1, in <module>
    runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/Program
Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/University/
Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\spyder\utils\site\sitecustomize.py",
line 710, in runfile
    execfile(filename, namespace)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\spyder\utils\site\sitecustomize.py",
line 101, in execfile
    exec(compile(f.read(), filename, 'exec'), namespace)

  File "C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/Program
Files/FibreLengthAnalysis/Code/main.py", line 83, in <module>
    plt.imshow(lines)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\matplotlib\pyplot.py", line 3157, in
imshow
    **kwargs)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\matplotlib\__init__.py", line 1898,
in inner
    return func(ax, *args, **kwargs)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\matplotlib\axes\_axes.py", line
5124, in imshow
    im.set_data(X)

  File "C:\Users\Matthew\Anaconda3\lib\site-packages\matplotlib\image.py", line 600, in
set_data
    raise TypeError("Invalid dimensions for image data")

TypeError: Invalid dimensions for image data
```

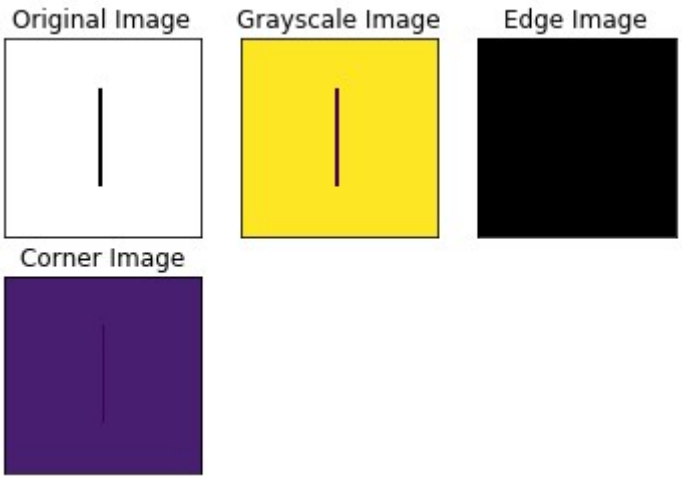


In [10]:

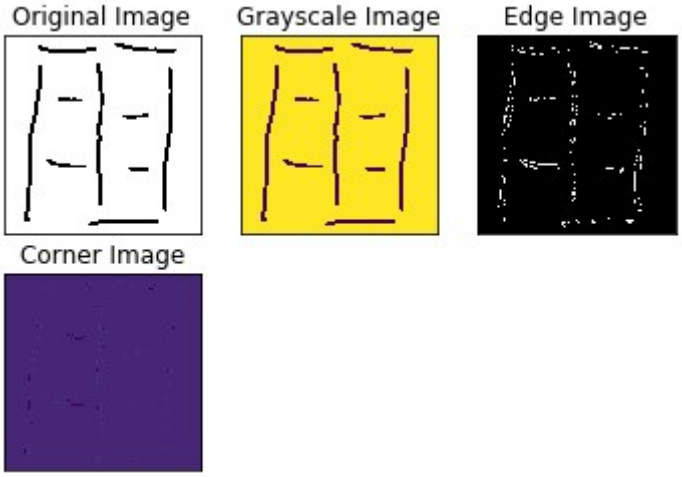
```
In [10]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
```



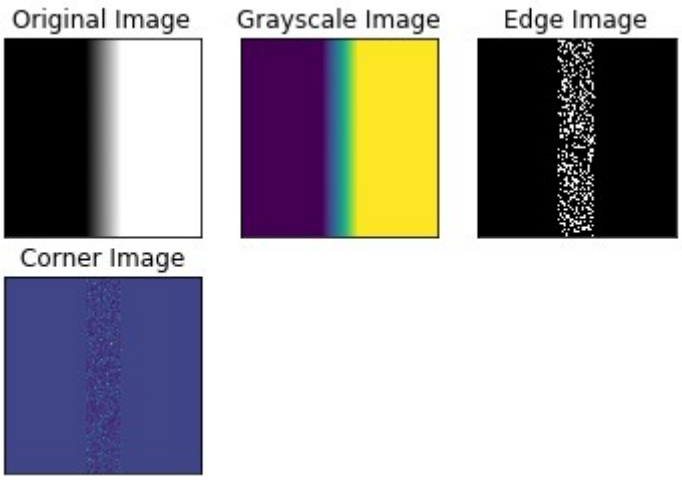

```
<matplotlib.figure.Figure at 0x1bd2ce0e908>

In [11]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: simple test image (25,500 fibre).jpg
```



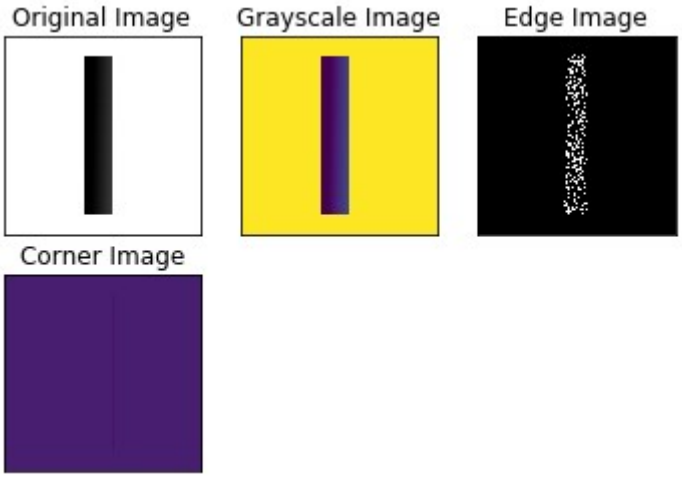

```
<matplotlib.figure.Figure at 0x1bd2be0cf98>

In [12]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: test image for canny.jpg
```



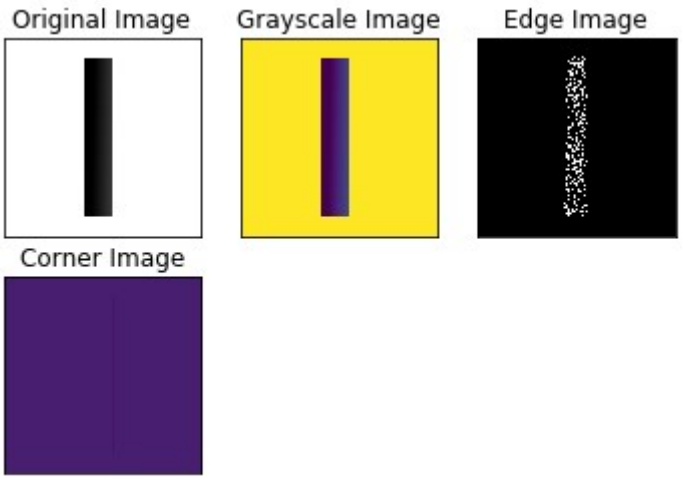

```
<matplotlib.figure.Figure at 0x1bd2be24a58>

In [13]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: test image for canny 2.jpg
```




```
<matplotlib.figure.Figure at 0x1bd2ce00cf8>

In [14]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: blurred one edge simple test image (150,800
fibre).jpg
```




```
<matplotlib.figure.Figure at 0x1bd2be51a58>

In [15]: runfile('C:/Users/Matthew/Google Drive/University/Work/Year 4/Masters Project/
Program Files/FibreLengthAnalysis/Code/main.py', wdir='C:/Users/Matthew/Google Drive/
University/Work/Year 4/Masters Project/Program Files/FibreLengthAnalysis/Code')

Please input filename to be analysed: blurred one edge simple test image (150,800
fibre).jpg
```



In [**16**]: