Note: I am Using Scipy v1.1.0. In case of any errors you can install scipy 1.1.0 by the following command: pip install scipy==1.1.0

In [19]:
```
import scipy
scipy.__version__
```

Out[19]:
```
'1.1.0'
```

To download images Click on this url: https://drive.google.com/drive/folders/1pcaTwofZGfoCxZ3Hv2X6vW6xf_1i88eb?usp=sharing (https://drive.google.com/drive/folders/1pcaTwofZGfoCxZ3Hv2X6vW6xf_1i88eb?usp=sharing)

In [20]:
```
import numpy as np
import matplotlib.pyplot as plt
from scipy.misc import imread
import math
from skimage.util import random_noise
from skimage.filters import rank
from scipy import ndimage
```

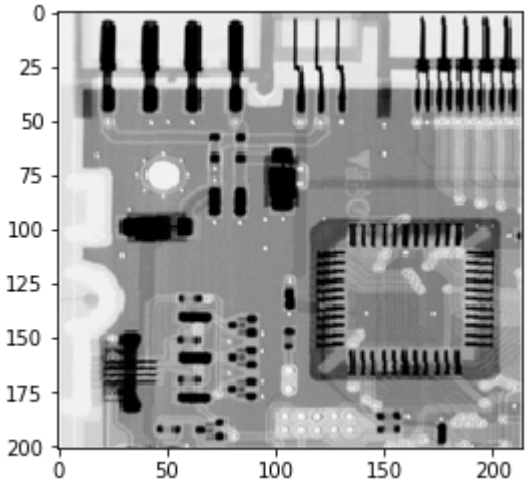
Original Image ¶

In [21]:
```
original_image=imread("circuit_image.png",False,'L')
```

```
C:\ProgramData\Anaconda3\lib\site-packages\ipykernel_launcher.py:1: DeprecationWarning: `imread` is deprecate
d!
`imread` is deprecated in SciPy 1.0.0, and will be removed in 1.2.0.
Use ``imageio.imread`` instead.
  """Entry point for launching an IPython kernel.
```

In [22]:
```
plt.imshow(original_image,plt.cm.gray)
```

Out[22]:
```
<matplotlib.image.AxesImage at 0x1994af6a508>
```



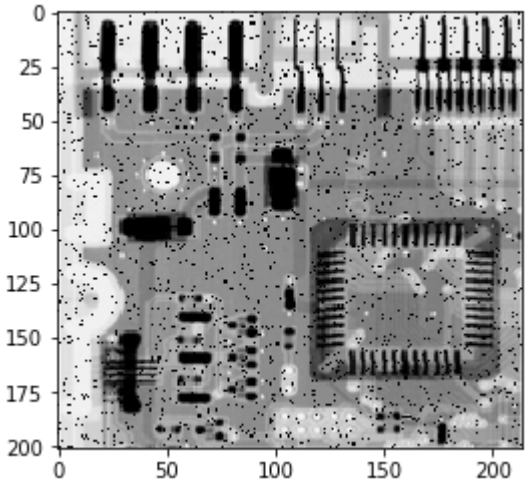
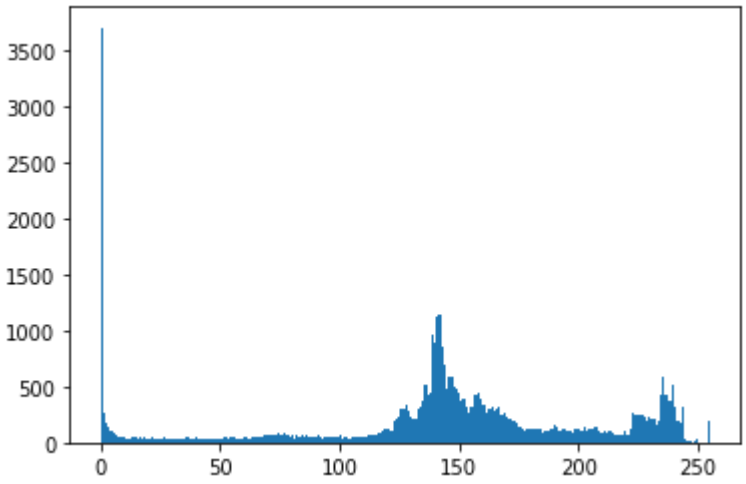
In [23]:
```
processed_image=original_image.copy()
```

Adding Pepper Noise

In [31]:
```
noise_img = random_noise(processed_image, mode='pepper')
noise_image=noise_img*255
```

In [32]:
```
plt.imshow(noise_image,plt.cm.gray)
```

Out[32]:
```
<matplotlib.image.AxesImage at 0x1994a6824c8>
```



In [33]:
```
hist=plt.hist(noise_image.flatten(),bins=256,range=[0,255])
```