

```
from skimage import io, filters, morphology
from skimage.color import rgb2gray
import matplotlib.pyplot as plt

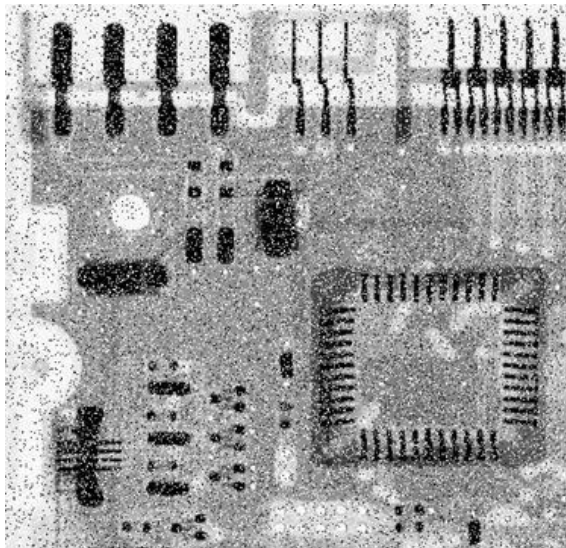
pic= io.imread('Picture1.jpg')

if pic.shape[2]==4:
    pic= pic[:, :, :3]

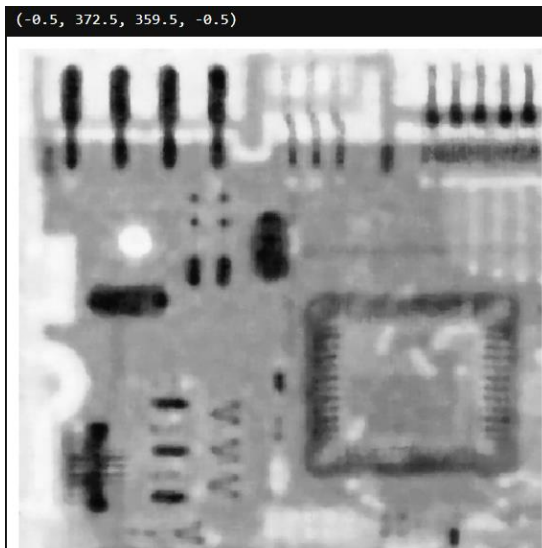
pic_grayscale= rgb2gray(pic)
remove_noise= filters.median(pic_grayscale, morphology.disk(5))

io.imshow(remove_noise)
plt.axis('off')
```

Original Photo:



Output:



Explanation:

I used skimage library for loading and reading the image

```
pic= io.imread('Picture1.jpg')
```

Here, removing the 4th channel

```
if pic.shape[2]==4:
    pic= pic[:, :, :3]
```

Then, I converted it to grayscale to make it easier to apply the filter, because the filter uses one channel.

```
pic_grayscale= rgb2gray(pic)
```

I applied a median filter, which is effective for reducing salt-and-pepper noise.

The filter used a disk-shaped structuring element with a radius of 5 to process each pixel.

```
remove_noise = filters.median(pic_grayscale, morphology.disk(5))
```

Finally, I showed the enhanced image and removed the axis because there is no need for it

```
io.imshow(remove_noise)  
plt.axis('off')
```