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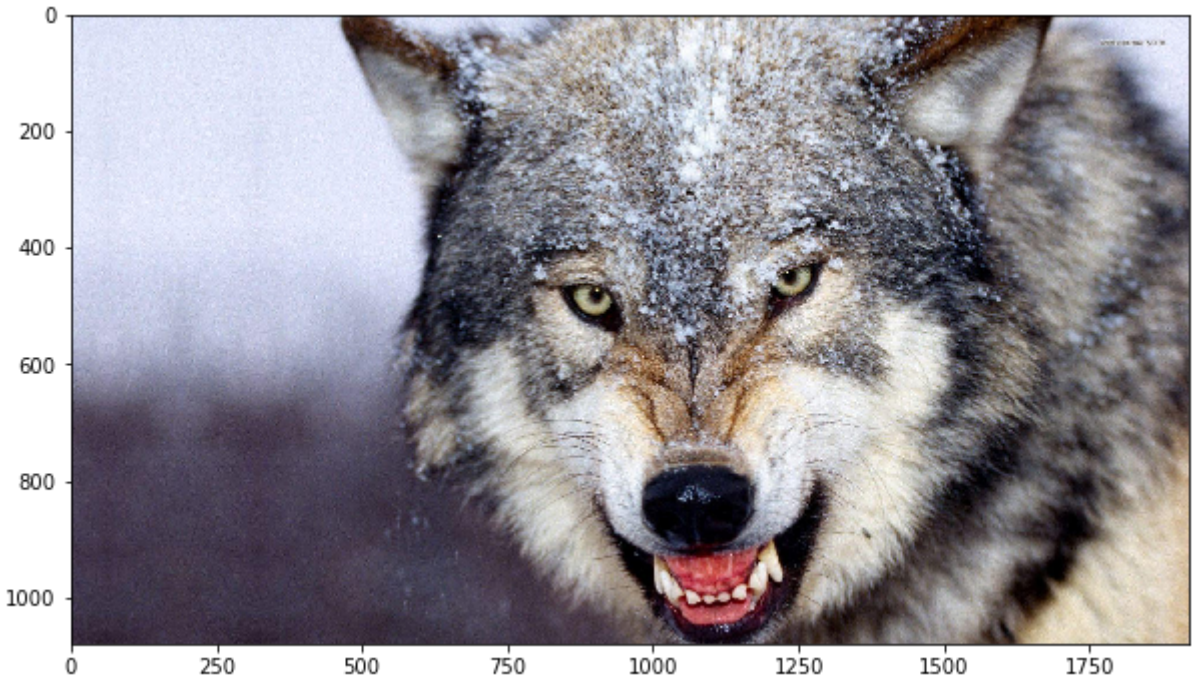
  Beginner Level Task 4 - Image to Pencil Sketch with Python

Import the required libraries

In [ ]:
```
import cv2
from matplotlib import pyplot as plt
```

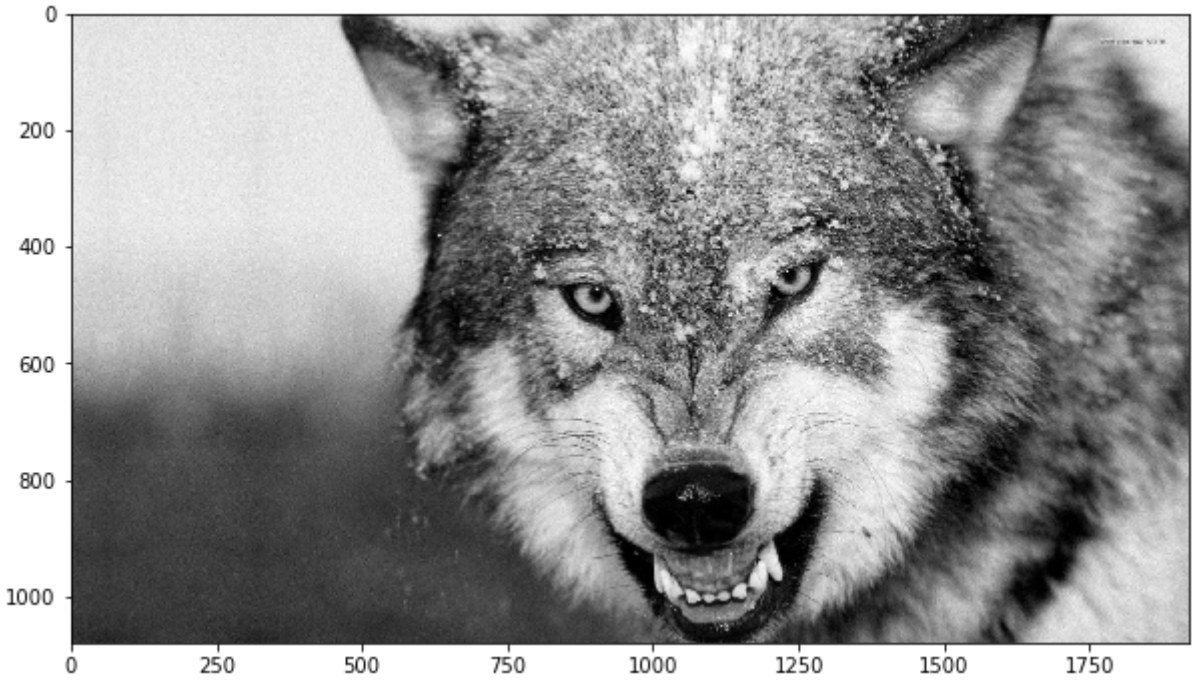
Read the image

In [ ]:
```
image = cv2.imread('wolf.jpg')
plt.figure(figsize=(10,10))
plt.imshow(cv2.cvtColor(image,cv2.COLOR_BGR2RGB),cmap='gray')
plt.show()
```



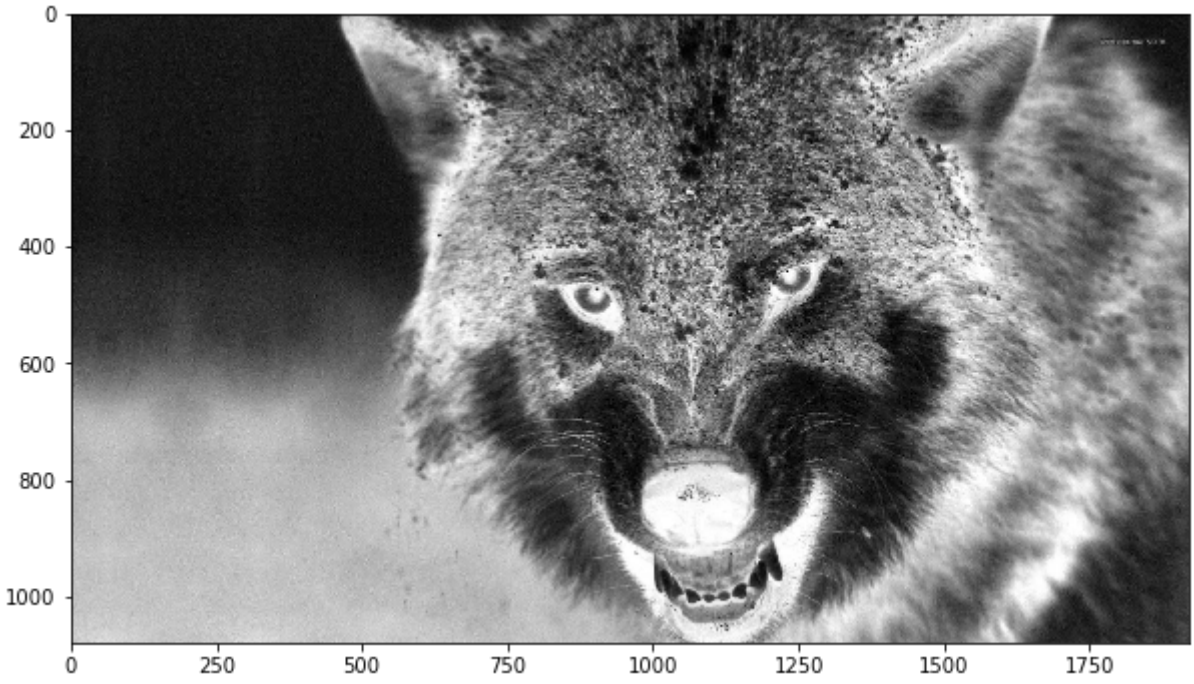
Convert to gray scale

In [ ]:
```
gray_image = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)
plt.figure(figsize=(10,10))
plt.imshow(gray_image,cmap='gray')
plt.show()
```



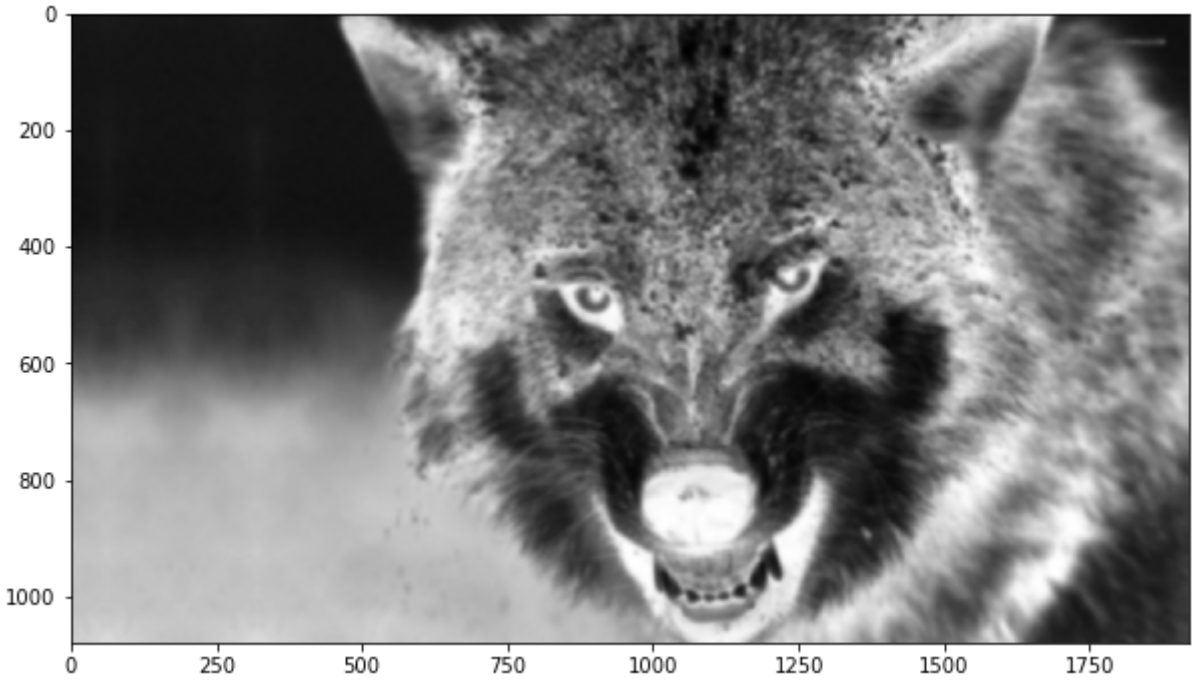
Invert the grayscale image

In [ ]:
```
inverted_image = 255 - gray_image
plt.figure(figsize=(10,10))
plt.imshow(inverted_image,cmap='gray')
plt.show()
```



Blur image using Gaussian Blur Function

In [ ]:
```
blurred = cv2.GaussianBlur(inverted_image, (21, 21), 0)
plt.figure(figsize=(10,10))
plt.imshow(blurred,cmap='gray')
plt.show()
```

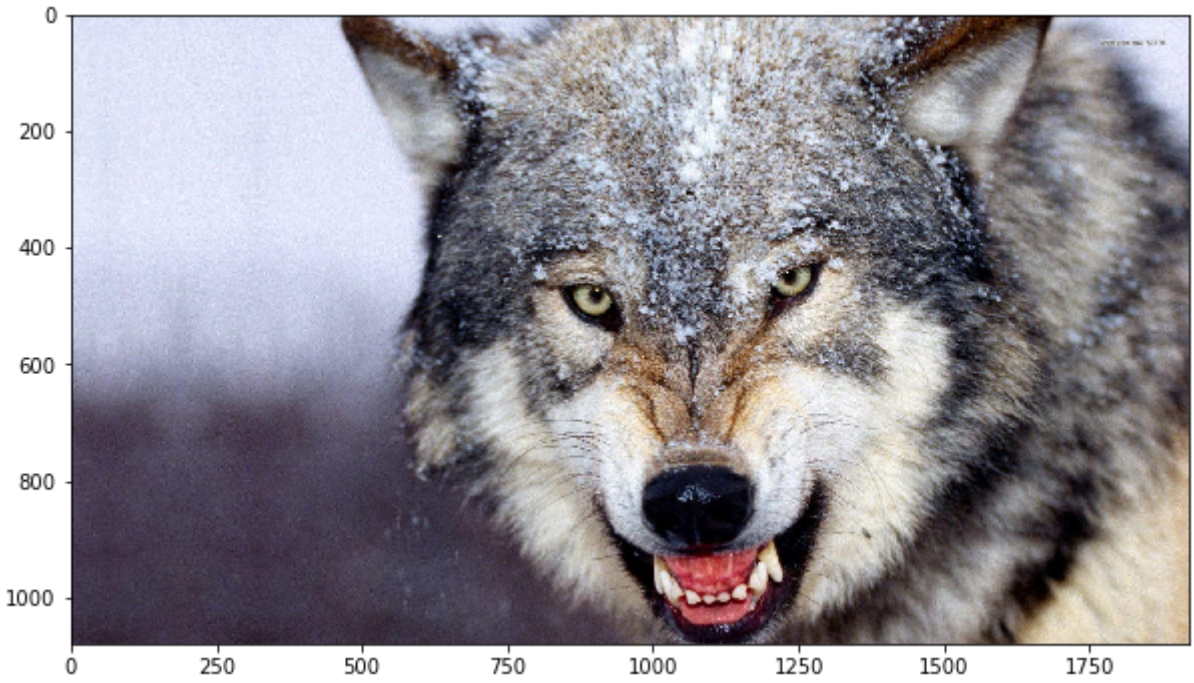


Invert the blurred image

In [ ]:
```
inverted_blurred = 255 - blurred
pencil_sketch = cv2.divide(gray_image, inverted_blurred, scale=256.0)
```

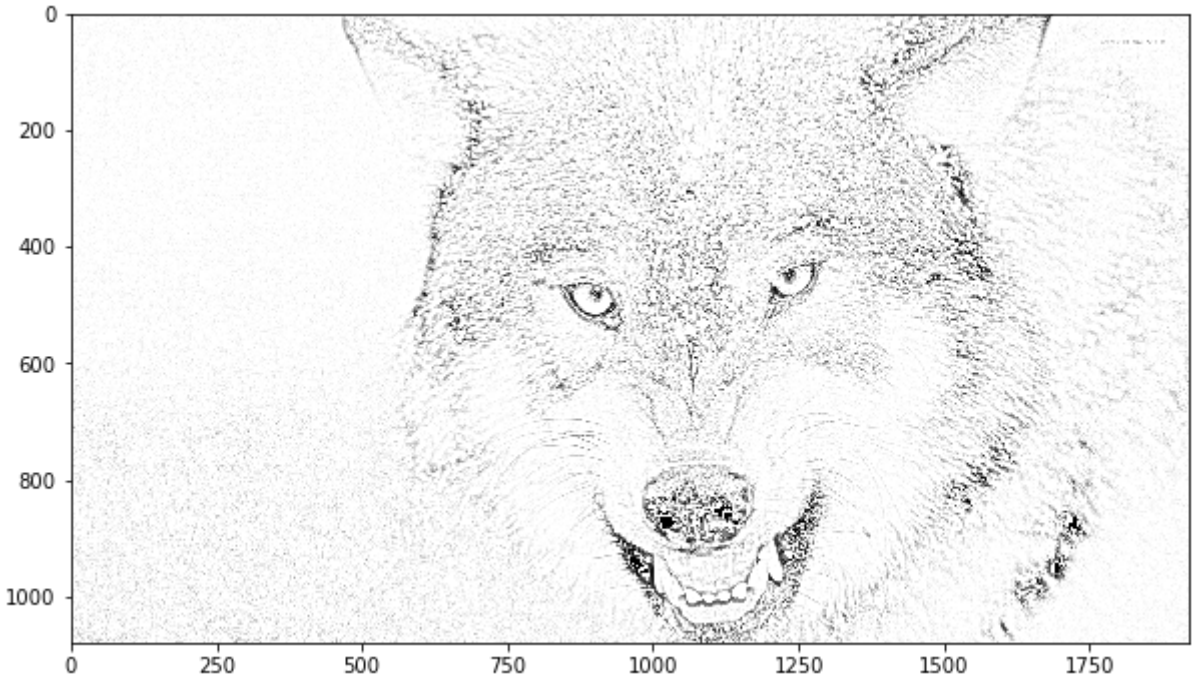
Original image

In [ ]:
```
plt.figure(figsize=(10,10))
plt.imshow(cv2.cvtColor(image,cv2.COLOR_BGR2RGB),cmap='gray')
plt.show()
```



Pencil sketch of the image

In [ ]:
```
plt.figure(figsize=(10,10))
plt.imshow(pencil_sketch,cmap='gray')
plt.show()
```


0
200
400
600
800
1000
0
250
500
750
1000
1250
1500
1750