

```
In [42]: import numpy as np
```

```
In [43]: import matplotlib.pyplot as plt
```

```
In [44]: from PIL import Image
```

```
In [45]: red_img= Image.open(r'C:\Users\chaud\OneDrive\Desktop\all photo\GTbike.jpg')  
red_img
```

Out[45]:



```
In [46]: GTbike_arr = np.asanyarray(red_img)
         GTbike_arr
```

```
Out[46]: array([[[42, 42, 40],
                  [42, 42, 40],
                  [42, 42, 40],
                  ...,
                  [23, 25, 24],
                  [23, 25, 24],
                  [23, 25, 24]],
                 [[42, 42, 40],
                  [42, 42, 40],
                  [42, 42, 40],
                  ...,
                  [23, 25, 24],
                  [23, 25, 24],
                  [23, 25, 24]],
                 [[42, 42, 40],
                  [42, 42, 40],
                  [42, 42, 40],
                  ...,
                  [23, 25, 24],
                  [23, 25, 24],
                  [23, 25, 24]],
                 ...,
                 [[54, 38, 39],
                  [46, 30, 31],
                  [40, 24, 25],
                  ...,
                  [17, 13, 12],
                  [18, 14, 13],
                  [18, 14, 13]],
                 [[34, 19, 12],
                  [41, 26, 19],
                  [37, 22, 15],
                  ...,
                  [15, 14, 12],
                  [15, 14, 12],
                  [14, 13, 11]],
                 [[47, 32, 25],
                  [52, 37, 30],
                  [48, 33, 26],
                  ...,
                  [15, 14, 12],
                  [15, 14, 12],
                  [14, 13, 11]]], dtype=uint8)
```

```
In [47]: plt.imshow(red_img)
         plt.show
```

```
Out[47]: <function matplotlib.pyplot.show(close=None, block=None)>
```



```
In [48]: GTbike_arr.shape
```

```
Out[48]: (1410, 1128, 3)
```

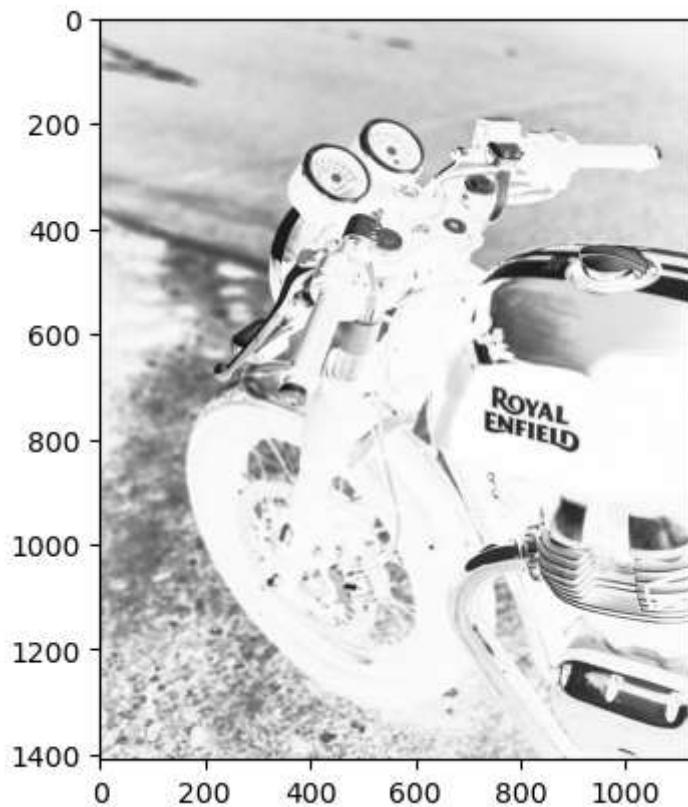
```
In [49]: plt.imshow(GTbike_arr[:, :, 0])
```

```
Out[49]: <matplotlib.image.AxesImage at 0x28d75a26d50>
```



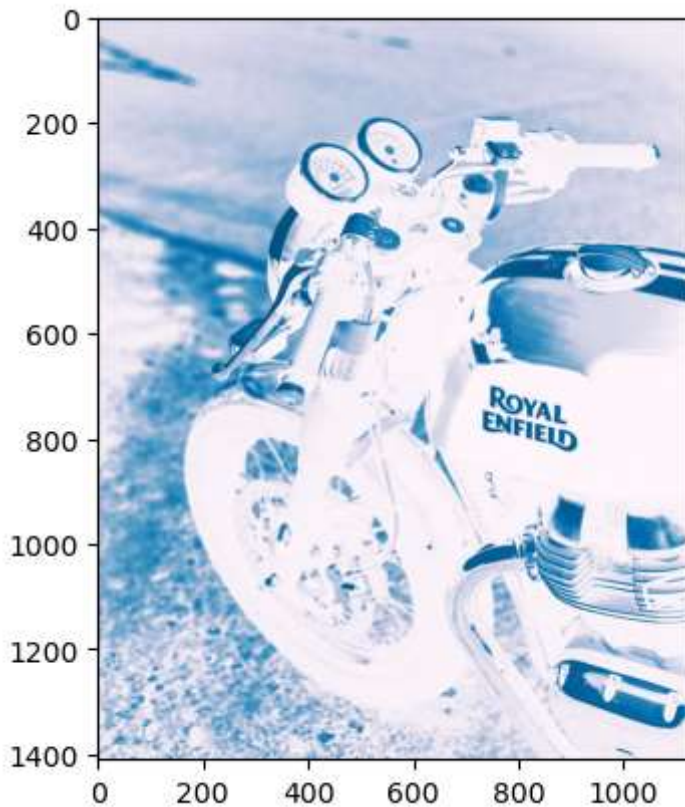
```
In [50]: plt.imshow(GTbike_arr[:, :, 1], cmap='Greys')
```

```
Out[50]: <matplotlib.image.AxesImage at 0x28d75a99a90>
```



```
In [51]: plt.imshow(GTbike_arr[:, :, 1], cmap='PuBu')
```


Out[51]: <matplotlib.image.AxesImage at 0x28d73aac050>



In [52]: GTbike_arr[:, :, 1]

Out[52]: array([[42, 42, 42, ..., 25, 25, 25],
 [42, 42, 42, ..., 25, 25, 25],
 [42, 42, 42, ..., 25, 25, 25],
 ...,
 [38, 30, 24, ..., 13, 14, 14],
 [19, 26, 22, ..., 14, 14, 13],
 [32, 37, 33, ..., 14, 14, 13]], dtype=uint8)

In [53]: GTbike_arr[:, :, 2]

Out[53]: array([[40, 40, 40, ..., 24, 24, 24],
 [40, 40, 40, ..., 24, 24, 24],
 [40, 40, 40, ..., 24, 24, 24],
 ...,
 [39, 31, 25, ..., 12, 13, 13],
 [12, 19, 15, ..., 12, 12, 11],
 [25, 30, 26, ..., 12, 12, 11]], dtype=uint8)

In [54]: GTbike_arr.shape

Out[54]: (1410, 1128, 3)

In [55]: GTbike_red=GTbike_arr.copy()

In [56]: GTbike_arr

```

Out[56]: array([[[42, 42, 40],
                  [42, 42, 40],
                  [42, 42, 40],
                  ...,
                  [23, 25, 24],
                  [23, 25, 24],
                  [23, 25, 24]],

                [[42, 42, 40],
                  [42, 42, 40],
                  [42, 42, 40],
                  ...,
                  [23, 25, 24],
                  [23, 25, 24],
                  [23, 25, 24]],

                [[42, 42, 40],
                  [42, 42, 40],
                  [42, 42, 40],
                  ...,
                  [23, 25, 24],
                  [23, 25, 24],
                  [23, 25, 24]],

                ...,

                [[54, 38, 39],
                  [46, 30, 31],
                  [40, 24, 25],
                  ...,
                  [17, 13, 12],
                  [18, 14, 13],
                  [18, 14, 13]],

                [[34, 19, 12],
                  [41, 26, 19],
                  [37, 22, 15],
                  ...,
                  [15, 14, 12],
                  [15, 14, 12],
                  [14, 13, 11]],

                [[47, 32, 25],
                  [52, 37, 30],
                  [48, 33, 26],
                  ...,
                  [15, 14, 12],
                  [15, 14, 12],
                  [14, 13, 11]]], dtype=uint8)

```

```

In [57]: plt.imshow(GTbike_red)
plt.show()

```



```
In [58]: GTbike_red==GTbike_arr
```

```

Out[58]: array([[[ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True],
                  ...,
                  [ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True]],

                [[ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True],
                  ...,
                  [ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True]],

                [[ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True],
                  ...,
                  [ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True]],

                ...,

                [[ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True],
                  ...,
                  [ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True]],

                [[ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True],
                  ...,
                  [ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True]],

                [[ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True],
                  ...,
                  [ True,  True,  True],
                  [ True,  True,  True],
                  [ True,  True,  True]]])

```

```
In [59]: GTbike_red.shape
```

```
Out[59]: (1410, 1128, 3)
```

```
In [60]: GTbike_arr[:, :, 1]
```



```
Out[60]: array([[42, 42, 42, ..., 25, 25, 25],
               [42, 42, 42, ..., 25, 25, 25],
               [42, 42, 42, ..., 25, 25, 25],
               ...,
               [38, 30, 24, ..., 13, 14, 14],
               [19, 26, 22, ..., 14, 14, 13],
               [32, 37, 33, ..., 14, 14, 13]], dtype=uint8)
```

```
In [61]: GTbike_red[:, :, 1] = 0
```

```
In [62]: GTbike_red[:, :, 1]
```

```
Out[62]: array([[0, 0, 0, ..., 0, 0, 0],
               [0, 0, 0, ..., 0, 0, 0],
               [0, 0, 0, ..., 0, 0, 0],
               ...,
               [0, 0, 0, ..., 0, 0, 0],
               [0, 0, 0, ..., 0, 0, 0],
               [0, 0, 0, ..., 0, 0, 0]], dtype=uint8)
```

```
In [63]: plt.imshow(GTbike_red)
plt.show()
```



```
In [64]: GTbike_red[:, :, 2]
```

```
Out[64]: array([[40, 40, 40, ..., 24, 24, 24],
                [40, 40, 40, ..., 24, 24, 24],
                [40, 40, 40, ..., 24, 24, 24],
                ...,
                [39, 31, 25, ..., 12, 13, 13],
                [12, 19, 15, ..., 12, 12, 11],
                [25, 30, 26, ..., 12, 12, 11]], dtype=uint8)
```

```
In [65]: GTbike_red[:, :, 2] = 0
```

```
In [66]: GTbike_red[:, :, 2]
```

```
Out[66]: array([[0, 0, 0, ..., 0, 0, 0],
                [0, 0, 0, ..., 0, 0, 0],
                [0, 0, 0, ..., 0, 0, 0],
                ...,
                [0, 0, 0, ..., 0, 0, 0],
                [0, 0, 0, ..., 0, 0, 0],
                [0, 0, 0, ..., 0, 0, 0]], dtype=uint8)
```

```
In [67]: plt.imshow(GTbike_red)
plt.show()
```



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In [ ]:
```

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In [ ]:
```

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In [ ]:
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