

# imagerecdispgray.py

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## 1 Program - Imagerecdispgray

Program to capture an image from a camera display a monochrome version of it on the screen, and store it in the file 'pygrayphoto.jpg'.

- Gerald Schuller, Sep. 2014.

- **Import the relevant modules:**

```
In [1]: import numpy as np
import cv2
import matplotlib.pyplot as plt
```

```
cap = cv2.VideoCapture(0)
```

- **Capture frame-by-frame**

```
In [2]: ret, frame = cap.read()
```

- **\*\* Our operations on the frame come here:\*\***

```
In [3]: gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
```

- **\*\* Display the resulting frame\*\***

```
In [4]: cv2.imshow('frame',gray)
#cv2.imshow('frame',frame)
#plt.imshow(gray,cmap='gray');
#plt.imshow(frame);
cv2.imwrite('pygrayphoto.jpg', gray)
```

```
Out[4]: True
```

- **Press 'q' to quit the window opened by running the program:**

```
In [5]: while(True):
        if cv2.waitKey(1) & 0xFF == ord('q'):
            break
```

- **When everything done, release the capture:**

```
In [6]: cap.release()
cv2.destroyAllWindows()
```