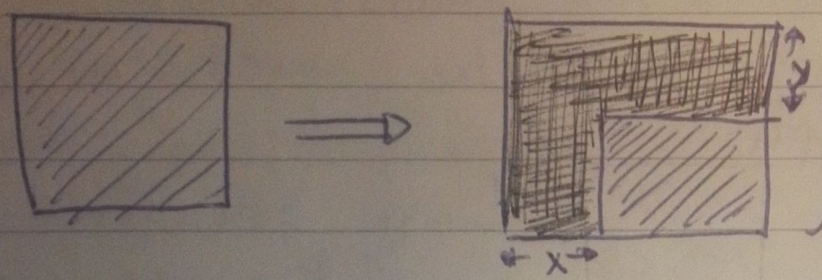
TRANSLATION
AKA shift location of img

Change a picture's position in a window.



The new image that is created, is an image on its own (along with the black background).

Steps are simple. You need a array/matrix of type np.float32 as: $\begin{bmatrix} 1 & 0 & x \\ 0 & 1 & y \end{bmatrix}$, where x, y are the pixels to be changed to the new position.

```
M = np.float32([[1,0,x],[0,1,y]])
result = cv2.warpAffine(img, M, (cols, rows))
```

cols, rows of our original img, we can use different values.

Image Rotation

- There is a matrix that describes the rotation, but opencv provides a function for that, so we don't need to know the matrix.

```
M = cv2.getRotationMatrix2D((x,y),θ,s)
result = cv2.warpAffine(img, M, (cols, rows))
```

where x, y = position to rotate the image
θ = rotation value.
S = size (1 = original size, 2 = 2* original size, 0.5 = half size)
cols, rows = cols and rows of the output (normally the cols, rows of the img.