

Harris Corner Detector in OpenCV

OpenCV has the function **cv2.cornerHarris()**

Its arguments are :

- **img** - Input image, it should be grayscale and float32 type.
- **blockSize** - It is the size of neighbourhood considered for corner detection
- **ksize** - Aperture parameter of Sobel derivative used.
- **k** - Harris detector free parameter in the equation.

Morphological Transformations

- Erosion
- Dilation
- Opening
- Closing

Morphological Transformations

- Removing noise
- Isolation of individual elements and joining disparate elements in an image.
- Finding of intensity bumps or holes in an image

Sobel

- **src** – input image.

- **dst** – output image of the same size and the same number of channels as src .

- **ddepth** –

output image depth; the following combinations of src.depth() and ddepth are supported:

- src.depth() = CV_8U, ddepth = -1/CV_16S/CV_32F/CV_64F
- src.depth() = CV_16U/CV_16S, ddepth = -1/CV_32F/CV_64F
- src.depth() = CV_32F, ddepth = -1/CV_32F/CV_64F
- src.depth() = CV_64F, ddepth = -1/CV_64F

when ddepth=-1, the destination image will have the same depth as the source; in the case of 8-bit input images it will result in

- **xorder** – order of the derivative x.

- **yorder** – order of the derivative y.

- **ksize** – size of the extended Sobel kernel; it must be 1, 3, 5, or 7.