

Report

B06902071 資工四 賴億泓

Octagonal 3-5-5-5-3 kernel

Origin point (2,2)

```
{0, 1, 1, 1, 0},  
{1, 1, 1, 1, 1},  
{1, 1, 1, 1, 1},  
{1, 1, 1, 1, 1},  
{0, 1, 1, 1, 0}
```

L shape kernel

J: origin point (1, 1)

```
{0, 0, 0},  
{1, 1, 0},  
{0, 1, 0}
```

K: origin point (1, 1)

```
{0, 1, 1},  
{0, 0, 1},  
{0, 0, 0}
```

Dilation function (line 56 - line 71)

```
void Dilation(Mat &img, Mat src)
```

Erosion function (line 73 - line 93)

```
void Erosion(Mat &img, Mat src)
```

Hit and Miss function (line 95 - line 160)

```
void HitandMiss(Mat &img)
```

Opening (line 199 - line 204) and Closing (line 206 - line 211)

-> Combination of Dilation function and Erosion function

(a) Dilation



(b) Erosion



(c) Opening



(d) Closing



(e) Hit-and-miss transform

