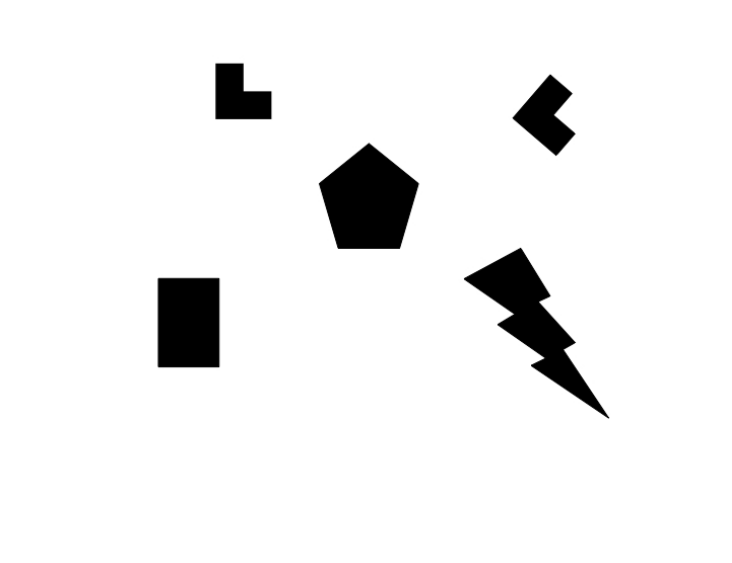
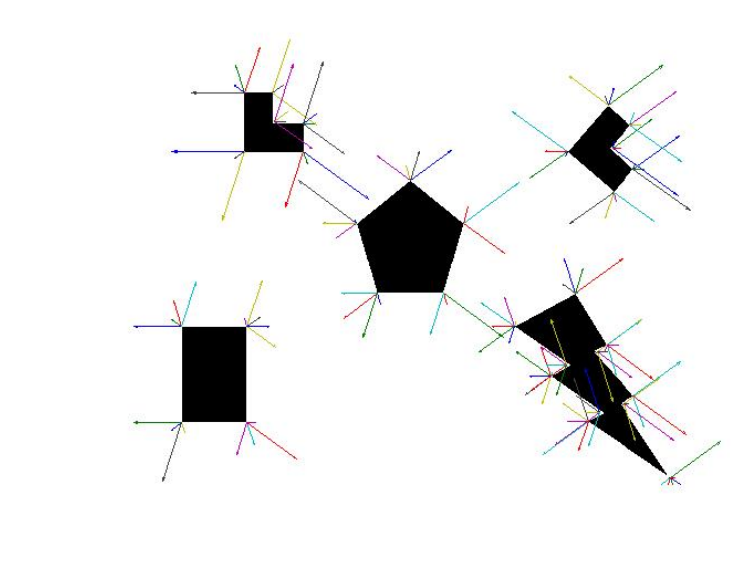
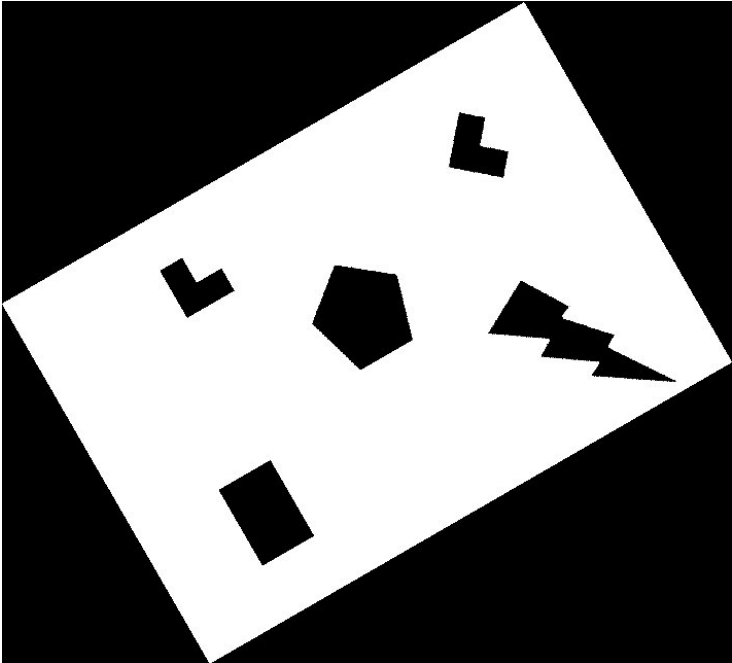
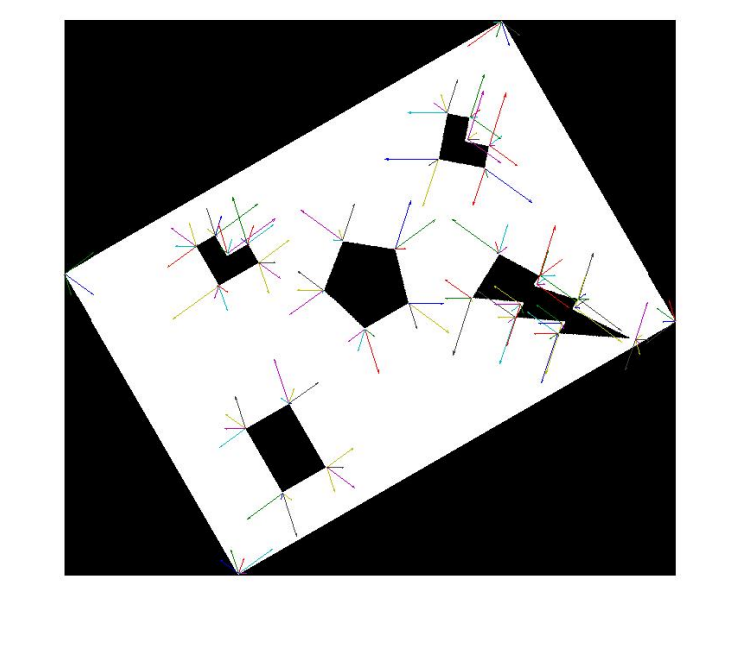


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Please refer to the images in the folder to a clear view.

original image	result image
 The original image shows a white background with several black geometric shapes: a small L-shaped polygon in the top left, a rectangle in the bottom left, a regular pentagon in the center, a small L-shaped polygon in the top right, and a jagged, lightning-bolt-like polygon in the bottom right.	 The result image shows the same black shapes as the original, but with numerous short, colored arrows (red, green, blue, yellow, and purple) pointing outwards from the edges of each shape. These arrows represent a vector field or edge detection results.
 The original image is rotated 45 degrees clockwise. The white background is now a tilted rectangle, and the black shapes are also rotated. The L-shaped polygons are now at the top corners, the rectangle is at the bottom left, and the jagged shape is at the bottom right.	 The result image is the original result image rotated 45 degrees clockwise. The colored arrows are now aligned with the edges of the rotated shapes.

histogram

1.0e+03 *

0	0	0.6945	1.3008	0.471	0.6999	1.066	0	0	0
0	0	0.6561	0.7142	0.472	0.9712	0.7161	0.09	0	0
0	0	0.7193	0.9666	0.4482	0.6932	1.1121	0.011	0	0
1.5	0.7538	0.013	0	0	0	0	0	1.3472	0.0345
0	0	0.386	1.0006	0.5042	0.9275	0.7211	0.107	0	0
0	0	0.8044	1.2619	0.324	0.6564	1.0826	0.017	0	0
1.0054	1.205	0.032	0	0	0	0	0	1.2715	0.2381
0.01	0	0	0	0	1.107	0.2248	0.4131	1.5579	0
1.1564	0.2279	0.6407	1.2374	0.001	0	0	0	0	0
1.6215	0	0	0	0	0	0	0.1199	1.299	0.25
1.3203	0.7283	0.114	0	0	0	0	0	0.9151	0.2623
0	0	0.1218	1.0623	0.5153	1.5693	0	0.001	0	0
0.002	0	0	0	0.004	0.3494	0.8365	0.6079	1.3649	0.0576
1.4344	0.8898	0.011	0	0	0	0	0	1.0142	0.1275
1.8718	0	0	0	0	0	0	0.1559	1.1202	0.1805
1.464	0	0	0	0	0	0	0.3011	1.3201	0.2453
0	0	0	0	0	0.9357	0.3367	0.6917	1.1581	0
1.4285	0.5383	0.7801	0	0	0	0	0	0	0.1996
1.271	0	0	0	0	0	0	1.7891	0.3116	0
0	0	0	0.583	0.7707	1.6652	0.0775	0	0	0
1.075	0	0	0	0	0	0	1.3973	0.3711	0.2562
1.873	0.2928	1.342	0	0	0	0	0	0	0
0	0	1.6797	0.2932	1.6956	0	0	0	0	0
0	0.2552	1.057	0.9657	0.8163	0	0	0	0	0
0	0	0	0	1.228	0.2948	0.664	1.093	0	0
0.8046	0	0	0	0	0	0.2016	1.1032	0.3606	0.5017
1.7078	0.2554	0.991	0	0	0	0	0	0	0

0	0.2341	1.4331	0.2881	1.1057	0	0	0	0	0
0.379	0.2413	0.9524	0.3564	0	0	0	0	1.4179	0.0939
0	0	0	0	1.1205	0.2881	0.6186	1.0746	0	0
1.178	0	0	0	0	0	0	1.5145	0.3715	0.2575
1.1797	0	0	0	0	0	0	0.3809	1.5766	0

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The direction seems to be consistent as the rotated image showed.
As testing with different bin size shows, increase the bin size seems to be unnecessary, 10 bins satisfies the need and we do not need to increase the size of the bin.

bin size	result image
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