

Unique ID	compiles & runs & has comments	Feature Detection (harris matrix, corner strength)	Feature Description	Rotation Invariance	At least 4-6 matches are correct	Thresholds: Two distance Measures (SSD, ratio test)	Graduate: Contrast Invariant (normalize descriptor values and clamp)	Graduate: Adaptive non-maximum suppression - MOPS or any other basic technique	Question 1: Why do we use a Gaussian kernel to weigh the gradients when computing the Harris matrix?	Question 2: Explain the SIFT histogram of orientations	Question 3: Explain how we can achieve rotational invariance (either SIFT's or MOPS approach)	Question for Graduate students: Explain how to achieve contrast invariance	Extra Credits each 20: 3 * 20 = 60	Total Undergrads: 105 pts Grads: 140 pts	Total / 100	Justification
	5	25	20	10	20	10	15	15	5	5	5	5	60	200	190.5	
6093														0	0.0	
7388														0	0.0	
7565	5	25	20	10	20	5	0	0	0	5	5	0	0	95	90.5	
6981	5	25	10	0	0	0	0	0	2	3.5	5	0	0	50.5	48.1	
7464	5	25	20	10	20	10	0	0	0	4	4	0	0	98	93.3	
7528	5	25	5	0	0	0	0	0	2	5	5	0	0	47	44.8	
7034	5	25	20	0	20	10	0	0	1	5	5	0	0	91	86.7	
6720	5	25	0	0	0	5	0	0	2	3	2	0	0	42	40.0	
7557	5	25	20	10	20	10	5	0	2	4	5	0	0	106	101.0	
6358	5	25	0	0	0	0	0	0	2	5	4	0	0	41	39.0	
7420														0	0.0	
6823	5	25	20	10	20	10	10	5	1	3	5	5	0	119	85.0	
0375	5	15		0			0							20	14.3	
0379	5	25	20	10	20	10	15	15	2	5	5	5	20	157	112.1	Scale
0357	5	25	15	10	20	10	0	0	2	3	5	0	0	95	67.9	
6462														0	0.0	
0207	4	25	20	9	20	6	15	10	5	5	5	5	40	169	120.7	KD TREE/Scale
7368	5	25	20	10	20	10	0	15	0	5	5	5	0	120	85.7	
0218	4	25	15	0	20	5	0	0	2	3	4	0	0	78	55.7	
7539	5	25	20	0	0	5	15	15	0	5	5	5	0	100	71.4	
0196	5	25	20	3	20	10	15	14	5	4	5	5	0	131	93.6	
0323														0	0.0	
4574	5	25	20	8	20	5	0	0	2	4	5	5	0	99	70.7	
7400														0	0.0	
7861	5	25	0	5	0	0	0	0	0	5	4	5	0	49	35.0	
0497	4	25	20	0	20	10	15	15	5	5	5	5	0	129	92.1	
0311	5	25	20	10	20	8	0	15	2	3.5	5	0	0	113.5	81.1	
0236	5	25	0	0	15	10	0	0	0	3	0	3	0	61	43.6	
0132	5	25	20	10	20	10	15	10	0	5	5	5	0	130	92.9	
0384	5	25	20	10	20	10	15	15	4	5	5	5	20	159	113.6	scale
5977														0	0.0	