

B Data obtained from the experiment to calculate the angle/pixel relation.

Deg(^o)	Pixel(px)
51.9	1680.18139648438
55.1	1614.35302734375
58	1545.68176269531
60.7	1481.87841796875
63.4	1453.27722167969
66.4	1394.87963867188
69.6	1324.93627929688
72.3	1295.57800292969
75.2	1239.87036132813
78.4	1177.19213867188
81.7	1131.521484375
84.4	1076.82666015625
87.3	1001.3798828125
90.3	950.402160644531
93.2	909.123413085938
96.4	874.994873046875
99.1	817.626831054688
101.8	777.937072753906
104.8	717.7470703125
107.7	658.462463378906
110.7	617.664123535156
113.4	557.690185546875
116.1	501.145202636719
119.3	435.194793701172
122.2	376.131103515625

Deg(^o)	Pixel(px)
55.5	301.023834228516
52.7	330.185180664062
49.5	422.391723632813
46.4	471.05419921875
43.3	565.895568847656
40.5	619.708251953125
37.3	686.763427734375
34.5	784.604370117188
31.4	840.0126953125
28.6	905.890380859375
25.5	968.500854492187
22.3	996.925598144531
19.5	1047.67785644531
16.4	1065.91906738281

Left: Calibration for the Phi angle. Right: Calibration for the Theta angle.



C Experiment ran to test how fast each method of sorting presets is, starting from a preset.

Test	ObjectPreset (1-3)	Method (0-2)	T1 (s)	T2 (s)
1	1	0	5.440745	4.108289
2	1	0	4.931125	4.905578
3	1	0	4.862637	4.720624
4	1	0	4.742256	4.805722
5	1	0	4.705323	3.860643
6	1	0	5.352498	3.821826
7	1	0	4.952634	4.769585
8	1	0	5.60212	4.805721
9	1	0	4.802607	4.878949
10	1	0	4.764583	4.815277
1	1	1	5.012756	4.774413
2	1	1	4.490681	4.944368
3	1	1	4.956216	4.860143
4	1	1	4.864151	4.755765
5	1	1	4.915378	5.140073
6	1	1	5.392666	4.531414
7	1	1	5.35137	4.839542
8	1	1	4.820868	4.822848
9	1	1	4.353036	4.982794
10	1	1	4.853458	4.811543
1	1	2	7.699577	4.727278
2	1	2	6.502057	3.924356
3	1	2	8.367234	4.845201
4	1	2	7.137763	4.810908
5	1	2	7.870453	4.907037
6	1	2	7.763679	4.707196
7	1	2	8.261545	4.885301
8	1	2	8.488456	4.921242
9	1	2	7.794417	4.806834
10	1	2	7.810523	4.984634
1	2	0	7.997948	10.173258
2	2	0	8.40131	8.803617
3	2	0	8.550154	9.051141
4	2	0	8.39631	9.308785
5	2	0	8.570898	9.108183
6	2	0	7.883772	10.144775
7	2	0	8.296108	9.232687
8	2	0	7.496016	9.10504
9	2	0	8.391494	9.215083
10	2	0	7.457804	9.116818

Test	ObjectPreset (1-3)	Method (0-2)	T1 (s)	T2 (s)
1	2	1	8.526379	9.230194
2	2	1	8.420078	9.195289
3	2	1	8.465677	9.022929
4	2	1	8.439693	9.143587
5	2	1	8.446753	10.179373
6	2	1	8.551007	9.182487
7	2	1	8.510614	9.1384
8	2	1	8.500418	9.118257
9	2	1	8.47856	9.138288
10	2	1	8.417107	9.182004
1	2	2	10.628758	13.154621
2	2	2	10.292102	12.063919
3	2	2	10.544353	14.197284
4	2	2	10.480666	13.181307
5	2	2	9.428504	13.104914
6	2	2	10.612905	13.147137
7	2	2	10.412317	13.117277
8	2	2	9.511157	13.330504
9	2	2	9.48687	12.03952
10	2	2	10.457186	13.014444
1	3	0	12.472714	14.047441
2	3	0	11.682189	12.763835
3	3	0	11.930436	14.760452
4	3	0	11.930604	12.93618
5	3	0	12.541095	14.551868
6	3	0	13.054847	12.917886
7	3	0	11.848854	14.807478
8	3	0	11.833205	12.877573
9	3	0	11.911335	14.783823
10	3	0	11.678804	13.947188
1	3	1	11.843059	13.814468
2	3	1	11.651696	13.824818
3	3	1	11.878094	13.846315
4	3	1	11.908419	14.945102
5	3	1	12.037466	13.81289
6	3	1	11.45235	13.890492
7	3	1	11.082211	13.846155
8	3	1	11.825238	13.90164
9	3	1	11.800295	13.777056
10	3	1	11.912134	13.985395
1	3	2	2.750406	8.039391
2	3	2	2.829938	7.845414
3	3	2	2.850347	7.81546
4	3	2	2.946135	8.814209
5	3	2	2.827387	8.675027
6	3	2	2.895413	8.953923
7	3	2	2.819215	8.777783
8	3	2	3.903325	8.89656
9	3	2	2.87333	8.881379
10	3	2	2.986938	8.863754



Table 8: Experiment ran to test how fast each method works on preset locations.

D Experiment ran to test how fast each method of sorting presets is, starting from a random location.

Test	ObjectPreset (1-3)	Method (0-2)	Initial Yaw	Initial Pitch	T3 (s)	T4 (s)
1	1	0	296	85	5.355835	6.198715
2	1	0	161	15	4.292737	4.6041
3	1	0	147	57	5.111652	5.675354
4	1	0	341	47	5.661327	6.12894
5	1	0	280	12	3.753126	4.285337
6	1	0	346	25	4.62042	4.925435
7	1	0	230	51	3.894468	5.379351
8	1	0	114	23	4.542976	4.599553
9	1	0	214	50	3.43888	4.419661
10	1	0	214	39	5.14193	5.096834
1	1	1	115	56	5.19944	6.095889
2	1	1	336	48	4.210424	5.011021
3	1	1	135	60	5.708997	6.742437
4	1	1	163	69	6.499028	6.416729
5	1	1	341	26	3.448264	4.814528
6	1	1	54	21	4.36307	5.561234
7	1	1	54	81	4.452569	5.326326
8	1	1	330	41	4.323724	4.885993
9	1	1	24	31	3.600964	4.841056
10	1	1	276	77	4.290774	6.051575
1	1	2	115	56	10.590639	13.45973
2	1	2	336	48	4.183825	5.145088
3	1	2	135	60	11.932914	12.70448
4	1	2	163	69	10.276366	12.947578
5	1	2	341	26	3.569508	4.555827
6	1	2	54	21	11.582718	13.195234
7	1	2	54	81	10.19756	12.801815
8	1	2	330	41	4.173595	5.164854
9	1	2	24	31	3.536538	4.641839
10	1	2	276	77	8.129184	9.872927
1	2	0	115	56	8.966817	10.52799
2	2	0	336	48	7.636756	9.772862
3	2	0	135	60	8.840411	11.665037
4	2	0	163	69	9.360278	11.74866
5	2	0	341	26	8.063144	10.027717
6	2	0	54	21	7.865696	9.984597
7	2	0	54	81	8.326564	10.21037
8	2	0	330	41	8.239071	10.267279
9	2	0	24	31	7.855822	10.396547
10	2	0	276	77	8.825725	10.663517

Test	ObjectPreset (1-3)	Method (0-2)	Initial Yaw	Initial Pitch	T3 (s)	T4 (s)
1	2	1	115	56	9.862791	11.301649
2	2	1	336	48	8.404968	10.341044
3	2	1	135	60	9.176358	11.462538
4	2	1	163	69	10.02533	11.648452
5	2	1	341	26	8.800029	9.891036
6	2	1	54	21	8.324117	10.360915
7	2	1	54	81	8.807452	10.324859
8	2	1	330	41	7.779609	9.635132
9	2	1	24	31	7.386253	9.496755
10	2	1	276	77	8.459748	10.806296
1	2	2	115	56	3.526864	4.739981
2	2	2	336	48	11.345025	13.319632
3	2	2	135	60	3.947531	5.655431
4	2	2	163	69	4.704318	6.207249
5	2	2	341	26	10.015776	13.834064
6	2	2	54	21	4.122974	5.09466
7	2	2	54	81	3.61455	4.664015
8	2	2	330	41	11.162609	13.219937
9	2	2	24	31	10.528772	14.119736
10	2	2	276	77	12.413286	14.510691
1	3	0	115	56	11.606246	15.26129
2	3	0	336	48	10.636896	14.484901
3	3	0	135	60	11.795585	16.161145
4	3	0	163	69	12.34224	16.548732
5	3	0	341	26	11.371668	14.887249
6	3	0	54	21	11.357694	14.640394
7	3	0	54	81	11.158462	15.768765
8	3	0	330	41	12.750702	13.868296
9	3	0	24	31	4.201119	13.451427
10	3	0	276	77	13.174252	16.206728
1	3	1	115	56	13.172516	16.179411
2	3	1	336	48	10.942178	14.559342
3	3	1	135	60	11.947202	15.88583
4	3	1	163	69	12.827482	15.20901
5	3	1	341	26	11.766131	14.610677
6	3	1	54	21	10.922475	14.351548
7	3	1	54	81	11.640892	15.407188
8	3	1	330	41	10.641409	14.695605
9	3	1	24	31	11.88302	14.185465
10	3	1	276	77	12.138822	14.189849
1	3	2	115	56	6.31213	8.621667
2	3	2	336	48	7.521075	8.608123
3	3	2	135	60	7.982072	9.721359
4	3	2	163	69	8.276324	10.912534
5	3	2	341	26	6.748288	8.67344
6	3	2	54	21	7.296669	8.671228
7	3	2	54	81	6.583487	9.059422
8	3	2	330	41	6.657609	9.130657
9	3	2	24	31	6.535875	8.712575
10	3	2	276	77	4.712756	5.508226



Table 9: Experiment ran to test how fast each method works on random camera positions.