Handson 7

CIE5141 Computer Vision in Construction

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1. **Please simply specify what image set you use or attach some sample,**
   An indoor dataset containing images captured by iphone showing a vending machine, and it contains 21 images.

2. **Please attach the screenshot of your point cloud model.**

3. Please attach the camera matrix.

```
00000000.jpg
C:\Users\jun\Desktop\img\S__49274929.jpg
1150.10705566
554 739
-0.172926455654 -0.0101890477494 -0.101734444163
0.199523463964 -0.0220317716567 0.00788838197331
-1.56776896485 -0.336212963404 -0.328890461448
0.683390940996 -0.699264000874 -0.149959354476 -0.146693336249
0.911987041537 0.410220311976 0.000192977275526
0.00922472358666 -0.0209782426876 0.999737477127
0.410116434741 -0.911745257122 -0.0229160859076
-0.0210609720239
0 0 0

00000001.jpg
C:\Users\jun\Desktop\img\S__49274931.jpg
1107.55200195
554 739
0.639268889383 -0.223864127998 0.630880652649
-0.896535608241 0.0816304347583 0.215292727369
-1.51048693882 -0.525637932119 -0.547596283687
0.663551059084 -0.668473373005 -0.232623634427 -0.242341410172
0.774313717393 0.632617238425 0.0152820303818
-0.0106063590938 -0.0111723972292 0.999881229944
0.632712666348 -0.774383628563 -0.00194128811935
-0.0252641278135
0 0 0
```

img 0												
	K			R			T	camera matrix				
	0.68339094	0	554	0.91198704	0.41022031	0.00019298	-0.1729265	227.827749	-504.82653	-12.69538	-56.479058	
	0	0.68339094	739	0.00922472	-0.0209782	0.99973748	-0.010189	303.082349	-673.79408	-16.251776	-75.188717	
	0	0	1	0.41011643	-0.9117453	-0.0229161	-0.1017344	0.41011643	-0.9117453	-0.0229161	-0.1017344	
img1				R			T	camera matrix				
	0.66355106	0	554	0.77431372	0.63261724	0.01528203	0.63926889	351.036614	-428.58876	-1.0653332	349.932069	
	0	0.66355106	739	-0.0106064	-0.0111724	0.99988123	-0.2238641	467.567623	-572.27691	-0.7711397	466.072257	
	0	0	1	0.63271267	-0.7743836	-0.0019413	0.63088065	0.63271267	-0.7743836	-0.0019413	0.63088065	

4. **Please specify the transformation matrix you used, and the selected object size(length) before and after scaling.**

real: Length=1.02m

original: Length=1.4776

T=[[0.69,0,0,0],[0,0.69,0,0],[0,0,0.69,0],[0,0,0,1]]

scaled: Length=1.019