
Suez Robotic Arm Platform: Codes and Standards

Team Victory Lap:

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Dynamic Load

	J1	J2	L2-3	J3	L3-4	J4	L4-5	J5	CoM Dist from J2 for L5-6 onwards is diagonal					
									L5-6	J6	L6-EE	EE	Thrust	
Radius (m)		0.066		0.056		0.061		0.045	0.211	0.04				
Length (m)			0.385		0.172		0.272				0.064	0.2		
CoM Dist from J2	0	0	0.1925	0.385	0.471	0.557	0.693	0.829	0.835686	0.855430	0.863880	0.873422		
Mass (kg)	3.6	3.6	3.36	2	1.68	2	1.68	1.2	1.68	1.2	0.3	1	15	
Force due to g (N)	35.3052	35.3052	32.95152	19.614	16.47576	19.614	16.47576	11.7684	16.47576	11.7684	2.9421	9.807	147.105	
I about Self		0.007840	0.041503	0.003136	0.004141	0.003721	0.010357	0.001215	0.006232	0.00096	0.000102	0.003333		
Parallel Axis		0	0.124509	0.29645	0.372692	0.620498	0.806818	0.824689	1.173263	0.878114	0.223887	0.762866		
I about J2		0.007840	0.166012	0.299586	0.376834	0.624219	0.817176	0.825904	1.179496	0.879074	0.223989	0.766199		
Total I @ J2	6.166332													

Static Load

									CoM Dist from J2 for L5-6 onwards is horizontal					
Moment @ J2		0	0.6468	0.77	0.79128	1.114	1.16424	0.9948	1.39272	0.9948	0.2487	0.829	12.435	

Total Moment @J2
21.38134 kg.m
209.7509 N.m



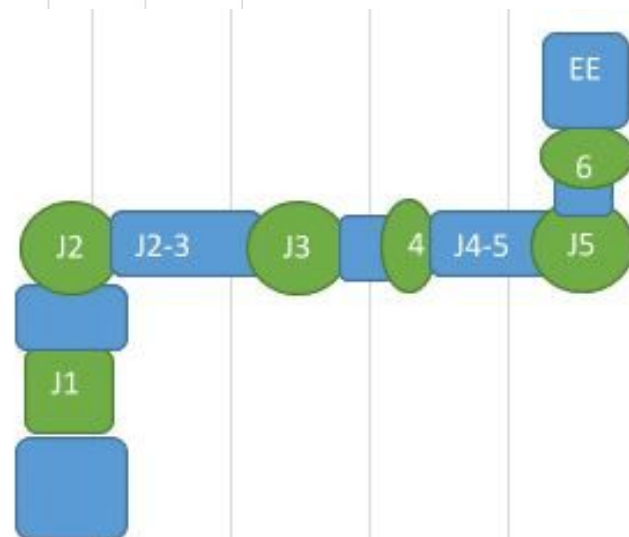
Total Torque

	Deg/s	Rad/s
Initial Angular Velocity	40	0.698131
Final Angular Velocity	0	0

Time to Stop 0.5 s *Peak acceleration rate of module 80 deg/s^2

Angular Acceleration 1.396263 rad/s^2 80 deg/s^2

Torque (29.99116 kg.m
294.2133 N.m



Lift Options

Cable

Rack and Pinion

Chain

Screw Drive

