

Parameter for Calculations of kinematic and dynamics

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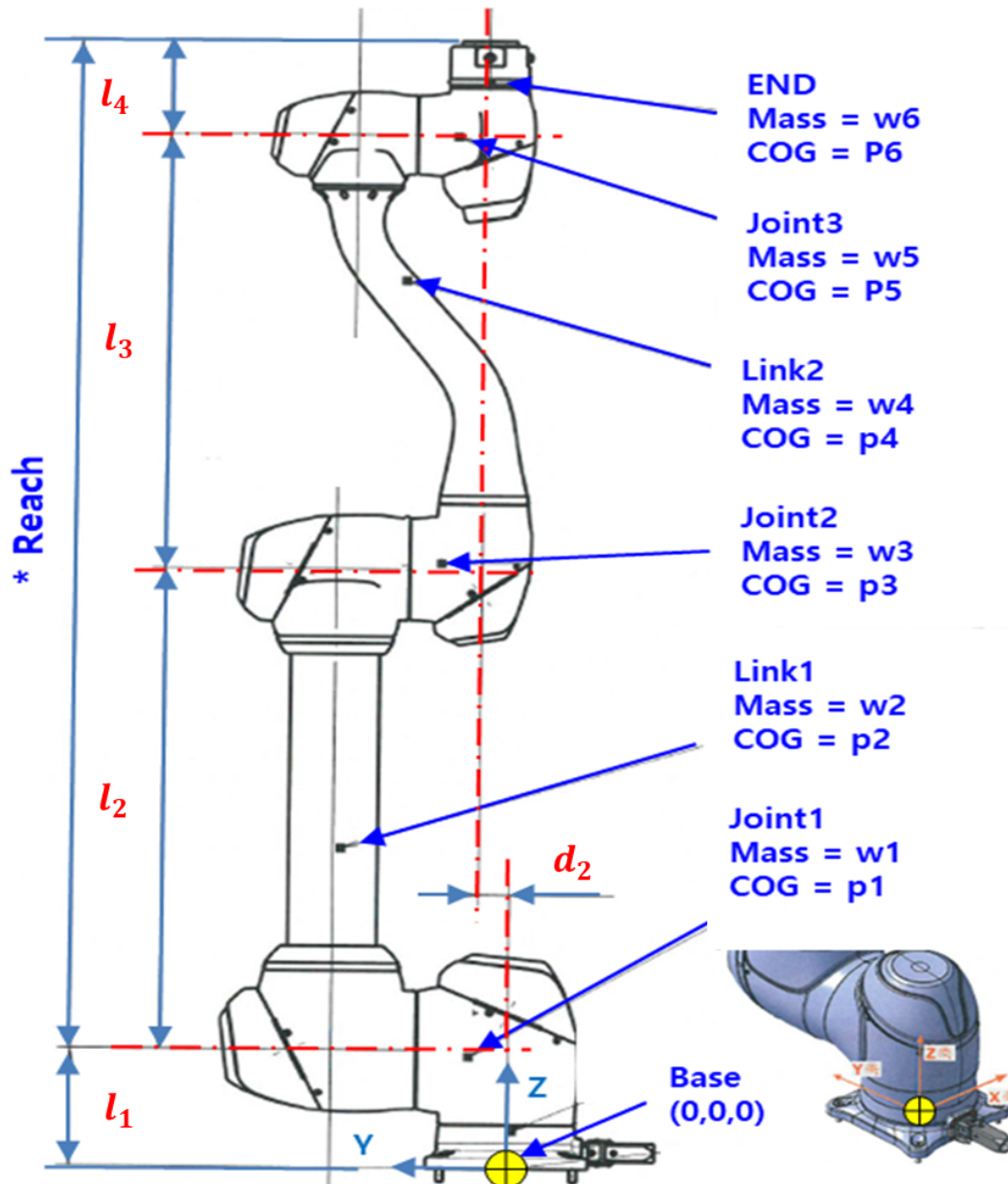
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Doosan robot series(M/H/A)

Parameter and COG is defined as below figure

Caution

These values is only supported for your Calculation.



Defined The Denavit-Hartenberg Parameters for M/ H/ A-Series

Kinematic	theta [degree]	a [mm]	d [mm]	alpha [degree]
Joint1	0	0	l1	0
Link1	-90	0	d2	-90
Joint2	90	l2	0	0
Link2	0	0	l3	90
Joint3	0	0	0	-90
End	0	0	l4	90

DH Value of Each M & H-series : Unit [mm]

Value	M0609	M0617	M1013	M1509	H2017	H2515
l1	135	152.5	152.5	152.5	344.3	344.3
l2	411	845	620	411	845	759.5
l3	368	734	559	368	734	619.5
d2	6.25	34.5	34.5	34.5	9.9	9.9
l4	121	121	121	121	121	121

CoG Value Data of Each M & H-series : Point Value is defined by Base Coordination.

COG Value		M0609	M0617	M1013	M1509	H2017	H2515
Joint1	w1 [kg]	5.02	7.8	7.8	7.8	20.25	20.25
	p1 X	0.07	0.12	0.12	0.12	-0.05	-0.05

COG Value			M0609	M0617	M1013	M1509	H2017	H2515
	[m m]	Y	36.23	42.8	42.8	42.8	118.54	118.54
		Z	131.58	146.12	146.12	146.12	284.32	284.32
Link1	w2 [kg]		8.04	11.55	10.83	10.06	28.54	28.11
	p2	X	0.03	-0.05	-0.05	-0.06	-0.02	-0.02
	[m m]	Y	166.3	192.7	192.32	191.84	235.17	235.17
		Z	339.47	510.02	412.23	323.09	724.85	701.59
Joint2	w3 [kg]		3.6	3.68	3.68	3.68	6.42	6.42
	p3	X	-0.02	-0.015	-0.02	-0.02	-0.06	-0.07
	[m m]	Y	49.7	79.11	79.11	79.13	59.43	59.43
		Z	552.87	1004.2	779.2	570.21	1197.63	1111.21
Link2	w4 [kg]		3.57	4.28	3.82	3.59	7.59	7.3
	p4	X	0.04	0.057	0.07	0.04	0.08	0.08
	[m m]	Y	103.33	125.79	126.38	131.81	138.86	140.58
		Z	804.19	1478.31	1148.98	821.9	1702.74	1543.83
Joint3	w5 [kg]		2.83	2.8	2.82	2.83	4.1	4.1
	p5	X	-0.07	-0.27	-0.27	-0.07	-0.06	-0.06
	[m m]	Y	38.22	665.87	66.59	66.51	58.71	58.69
		Z	910.17	1727.85	1327.85	927.67	1923.89	1723.89

COG Value			M0609	M0617	M1013	M1509	H2017	H2515
END	w6 [kg]		1.16	1.16	1.16	1.16	0.9	0.9
	p6	X	-0.03	-0.29	-0.29	-0.03	-0.03	-0.03
	[m m]	Y	6.21	34.51	34.51	34.51	9.94	9.91
		Z	981.1	1798.6	1398.6	998.6	1994.86	1794.9

DH Value of Each A-series : Unit [mm]

Value	A0509	A0509S	A0912	A0912S
l1	155.5	155.5	195	195
l2	409	409	560	560
l3	367	367	516	516
d2	0	0	39	39
l4	124	127	124	127

CoG Value Data of Each A-series : Point Value is defined by Base Coordination

COG Value			A0509	A0509S	A0912	A0912S
Joint1	w1 [kg]		3.72	3.72	7.86	7.86
	p1	X	-0.069	-0.069	0.044	0.044
	[m m]	Y	24.423	24.423	29.982	29.982
		Z	148.125	148.125	183.88	183.88
Link1	w2 [kg]		6.84	6.84	10.99	10.99

COG Value			A0509	A0509S	A0912	A0912S
	p2	X	0	0	1.426	1.426
	[m m]	Y	132.71	132.71	170.908	170.908
		Z	359.986	359.986	392.484	392.484
Joint2	w3 [kg]		2.77	2.77	2.88	2.88
	p3	X	0.071	0.071	0.085	0.085
	[m m]	Y	33.009	33.009	71.058	71.058
		Z	569.623	569.623	757.513	757.513
Link2	w4 [kg]		2.68	2.68	3.27	3.27
	p4	X	-0.086	-0.086	-0.096	-0.096
	[m m]	Y	86.348	86.348	124.314	124.314
		Z	845.469	845.469	1131.255	1131.255
Joint3	w5 [kg]		2.05	2.05	2.14	2.14
	p5	X	0.091	0.091	0.109	0.109
	[m m]	Y	15.434	15.434	53.77	53.77
		Z	937.957	937.957	1274.286	1274.286
END	w6 [kg]		0.77	0.87	0.78	0.88
	p6	X	-0.022	-0.022	-0.019	-0.019
	[m m]	Y	-0.007	-0.007	38.994	38.994

COG Value			A0509	A0509S	A0912	A0912S
		Z	1003.754	1007.754	1342.73	1346.73