Benchmark models with JuMP and OptimalControl
max iter = 1000, tol = 1.0e-8, constr viol tol = 1.0e-6, solver = ma57

Solver	Model	Discretization	Variables	Constraints	Iterations	Total Time	Ipopt Time	Objective Value	Flag
robot	JuMP	100	910	612	18	0.06	0.06	9.14269	Solve Succeeded
robot	JuMP	400	3610	2412	20	0.22	0.19	9.14103	Solve Succeeded
robot	OptimalControl	100	901	606	20	0.15	0.13	9.142	Solve Succeeded
robot	OptimalControl	400	3601	2406	49	19.78	19.75	9.14099	Solve Succeeded
beam	JuMP	100	303	204	19	0.01	0.01	912.128	Solve Succeeded
beam	JuMP	400	1203	804	25	0.02	0.02	3578.03	Solve Succeeded
beam	OptimalControl	100	400	302	18	0.08	0.07	8.89871	Solve Succeeded
beam	OptimalControl	400	1600	1202	23	0.19	0.17	8.8895	Solve Succeeded
rocket	JuMP	100	405	304	19	0.08	0.08	1.01283	Solve Succeeded
rocket	JuMP	400	1605	1204	40	0.25	0.25	1.01284	Solve Succeeded
rocket	OptimalControl	100	401	301	22	0.07	0.06	-1.01283	Solve Succeeded
rocket	OptimalControl	400	1601	1201	30	1.02	1.0	-1.01284	Solve Succeeded
electrical_vehicle	JuMP	100	303	204	5	0.02	0.01	1.24629e8	Solve Succeeded
electrical_vehicle	JuMP	400	1203	804	5	0.07	0.01	4.93167e8	Solve Succeeded
electrical_vehicle	OptimalControl	100	400	302	21	0.13	0.11	1.22906e6	Solve Succeeded
electrical_vehicle	OptimalControl	400	1600	1202	17	0.69	0.68	1.22861e6	Solve Succeeded