Benchmark OptimalControl Results
max iter = 1000, tol = 1.0e-8, constr viol tol = 1.0e-6, solver = ma57

Model	Discretization	Iterations	Total Time	Ipopt Time	Objective Value	Flag
cart_pendulum	100	237	5.81684	1.569	1.74413	Solve_Succeeded
cart_pendulum	500	495	14.4824	13.888	1.74373	Solve_Succeeded
robot	100	75	1.7994	0.523	9.14269	Solve_Succeeded
robot	500	649	24.1909	22.874	9.14099	Solve_Succeeded
electrical_vehicle	100	16	2.21541	0.188	1.22905e6	Solve_Succeeded
electrical_vehicle	500	1000	13.9399	13.823	231779.0	Maximum_Iterations_Exceeded
double_oscillator	100	5	1.12088	0.109	0.000908244	Solve_Succeeded
double_oscillator	500	5	0.290609	0.094	0.000910921	Solve_Succeeded
ducted_fan	100	162	2.72071	1.233	1832.95	Solve_Succeeded
ducted_fan	500	163	124.051	123.402	1831.66	Solve_Succeeded
steering	100	11	0.343898	0.042	0.554595	Solve_Succeeded
steering	500	17	0.389479	0.225	0.554572	Solve_Succeeded
glider	100	230	4.82419	3.333	1254.61	Solve_Succeeded
glider	500	755	650.147	649.668	1247.98	Solve_Succeeded
rocket	100	21	0.133355	0.073	1.01283	Solve_Succeeded
rocket	500	77	7.86265	7.468	1.01284	Solve_Succeeded
chain	100	7	0.319346	0.039	5.06978	Solve_Succeeded
chain	500	14	0.218898	0.132	5.06858	Solve_Succeeded
dielectrophoretic_particle	100	38	0.780826	0.108	-9.97699e-9	Infeasible_Problem_Detected
dielectrophoretic_particle	500	38	1.87301	1.743	-9.99545e-9	Infeasible_Problem_Detected