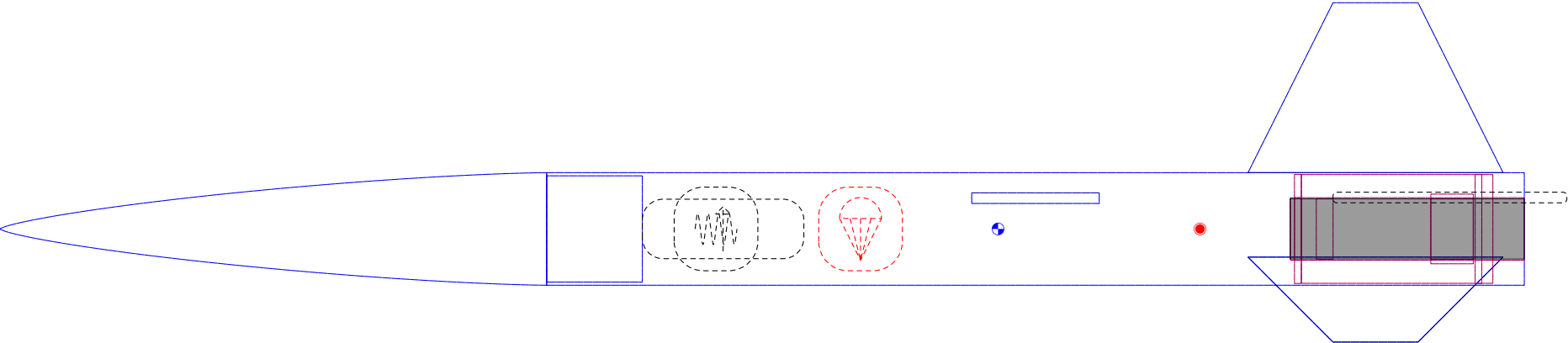


Rocket Design



Rocket
Stages: 1
Mass (with motor): 78.2 g
Stability: 1.79 cal
CG: 11.747 in
CP: 14.123 in

A8-3

Altitude	135 ft
Flight Time	11.6 s
Time to Apogee	3.13 s
Optimum Delay	2.5 s
Velocity off Pad	55.3 ft/s
Max Velocity	84.5 ft/s
Velocity at Deployment	18.4 ft/s
Landing Velocity	17.2 ft/s

Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
A8	3.48 N	0.663 s	9.73 N	2.32 Ns	4.96:1	3.3 g	0.709/2.76 in















C6-5

Altitude	881 ft
Flight Time	59.1 s
Time to Apogee	7.22 s
Optimum Delay	5.42 s
Velocity off Pad	67.4 ft/s
Max Velocity	275 ft/s
Velocity at Deployment	12.9 ft/s
Landing Velocity	17.1 ft/s

Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
C6	4.81 N	1.83 s	14.1 N	8.82 Ns	6.27:1	10.8 g	0.709/2.76 in

Parts Detail

Sustainer

	Nose cone	Polystyrene (0.607 oz/in ³)	Haack series	Len: 6.438 in	Mass: 16 g
	Body tube	Cardboard (0.393 oz/in ³)	Di _a in 1.283 in Di _a out 1.325 in	Len: 11.5 in	Mass: 14.3 g
	Jollylogic Altimeter 3		Di _a out 0.7 in		Mass: 10.5 g
	Shock cord	Elastic cord (flat 6 mm, 1/4 in) (0.046 oz/ft)		Len: 14 in	Mass: 1.9 g
	Parachute	Polyethylene (thin) (0.049 oz/ft ²)	Di _a out 10.75 in	Len: 0.984 in	Mass: 1.9 g
	Shroud Lines	Thread (heavy-duty) (0.003 oz/ft)	Lines: 6	Len: 11.811 in	
	Launch lug	Glassine (0.06 oz/in ³)	Di _a in 0.046 in Di _a out 0.125 in	Len: 1.5 in	Mass: 0.1 g
	Trapezoidal fin set (3)	Balsa (0.098 oz/in ³)	Thick: 0.125 in		Mass: 4.14 g
	Glue	Glue (0.393 oz/in ³)	Di _a in 1.27 in Di _a out 1.28 in	Len: 2.25 in	Mass: 1.8 g
	Inner Tube	Cardboard (0.393 oz/in ³)	Di _a in 0.71 in Di _a out 0.736 in	Len: 2.75 in	Mass: 1.5 g
	Engine Block	Cardboard (0.393 oz/in ³)	Di _a in 0.71 in Di _a out 0.71 in	Len: 0.197 in	Mass: 0.4 g
	Engine Hook		Di _a out 0.125 in		Mass: 1.5 g
	Top Centering Ring	Cardboard (0.393 oz/in ³)	Di _a in 0.736 in Di _a out 1.283 in	Len: 0.079 in	Mass: 0.4 g
	Bottom Centering Ring	Cardboard (0.393 oz/in ³)	Di _a in 1.28 in Di _a out 1.283 in	Len: 0.079 in	Mass: 0.4 g
	Motor Mount Clip Retaining sleeve	Cardboard (0.393 oz/in ³)	Di _a in 0.71 in Di _a out 0.82 in	Len: 0.5 in	Mass: 0.3 g

