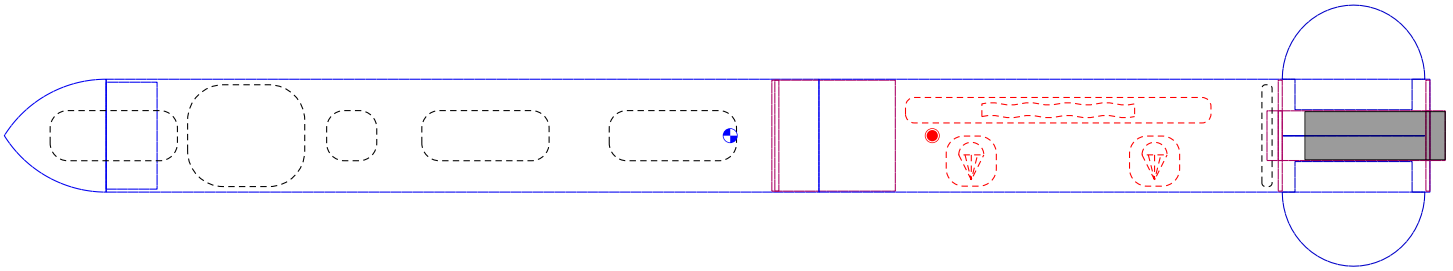


Rocket Design



Rocket

Stages: 1

Mass (with motor): 503 g

Stability: 1.79 cal

CG: 36.2 cm

CP: 46.3 cm

F39-6

	Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
Altitude								
Flight Time	F39	39.6 N	1.25 s	59.5 N	49.7 Ns	7.85:1	22.7 g	24/70 mm
Time to Apogee								
Optimum Delay								
Velocity off Pad								
Max Velocity								
Velocity at Deployment								
Landing Velocity								

F35W-5

	Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
Altitude								
Flight Time	F35W	40.7 N	1.41 s	58.4 N	57.6 Ns	7.70:1	30 g	24/95 mm
Time to Apogee								
Optimum Delay								
Velocity off Pad								
Max Velocity								
Velocity at Deployment								
Landing Velocity								

F24-7

Parts Detail

Sustainer

	Nose cone	Cardboard (0.68 g/cm ³)	Ogive	Len: 5.08 cm	Mass: 25 g
	Cargo Estes EST 30424	Paper (0.609 g/cm ³)	Dia _{in} 5.54 cm Dia _{out} 5.63 cm	Len: 35.6 cm	Mass: 30 g
	Egg Uno		Dia _{out} 2.5 cm		Mass: 60 g
	Variable Mass 1		Dia _{out} 2.5 cm		Mass: 30 g
	Altimeter		Dia _{out} 5.08 cm		Mass: 20 g
	Egg Dos		Dia _{out} 2.5 cm		Mass: 60 g
	Egg Three Star		Dia _{out} 2.5 cm		Mass: 60 g
	Bulkhead	Cardboard (0.68 g/cm ³)	Dia _{out} 5.54 cm	Len: 0.2 cm	Mass: 10 g
	Tube coupler	Cardboard (0.68 g/cm ³)	Dia _{in} 5.54 cm Dia _{out} 5.54 cm	Len: 6.16 cm	Mass: 0 g
	Booster Estes EST 30424	Paper (0.609 g/cm ³)	Dia _{in} 5.54 cm Dia _{out} 5.63 cm	Len: 30.5 cm	Mass: 60 g
	Chute 1	Ripstop nylon (67 g/m ²)	Dia _{out} 38.1 cm	Len: 2.5 cm	Mass: 15 g
	Shroud Lines	Elastic cord (round 2 mm, 1/16 in) (1.8 g/m)	Lines: 6	Len: 30 cm	
	Chute 2	Ripstop nylon (67 g/m ²)	Dia _{out} 38.1 cm	Len: 2.5 cm	Mass: 15 g
	Shroud Lines	Elastic cord (round 2 mm, 1/16 in) (1.8 g/m)	Lines: 6	Len: 30 cm	
	Streamer	Ripstop nylon (67 g/m ²)	Length 102 cm Width 15.2 cm	Len: 15.2 cm	Mass: 20 g
	Elliptical fin set (4)	Basswood (0.5 g/cm ³)	Thick: 0.3 cm		Mass: 23 g
	Centering ring upper	Cardboard (0.68 g/cm ³)	Dia _{in} 2.48 cm Dia _{out} 5.54 cm	Len: 0.2 cm	Mass: 2.62 g
	Inner Tube Estes EST 3086	Paper (0.609 g/cm ³)	Dia _{in} 2.41 cm Dia _{out} 2.48 cm	Len: 8.89 cm	Mass: 1.37 g
	Centering ring lower	Cardboard (0.68 g/cm ³)	Dia _{in} 2.48 cm Dia _{out} 5.54 cm	Len: 0.2 cm	Mass: 2.62 g
	Variable Mass 2		Dia _{out} 5.08 cm		Mass: 20 g

