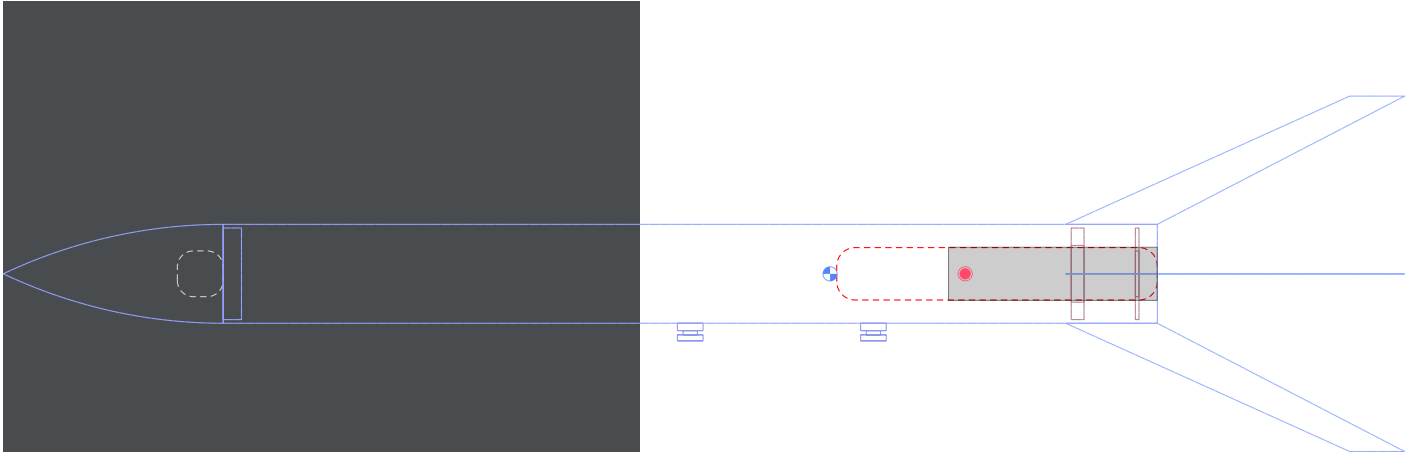


# Rocket Design



Rocket

Stages: 1

Mass (with motor): 402 g

Stability: 1.37 cal / 9.64 %

CG: 45.1 cm









CP: 52.5 cm

**F15-0**

Altitude	360 m	Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Motor Wt	Size
Flight Time	19.3 s	F15	14.5 N	3.42 s	25.3 N	49.6 Ns	3.68:1	60 g	29/114 mm
Time to Apogee	9.46 s								
Optimum Delay	6.06 s								
Velocity off Pad	9.12 m/s								
Max Velocity	81.3 m/s								
Velocity at Deployment	N/A								
Landing Velocity	60 m/s								

Parts Detail

Stage: Sustainer

	Nose Cone	Cardboard (0.68 g/cm³)	Ogive	Len: 12 cm	Mass: 27.4 g
	Mass Component		Dia <sub>out</sub> 2.5 cm		Mass: 20 g
	Body Tube	Cardboard (0.68 g/cm³)	Dia <sub>in</sub> 5 cm Dia <sub>out</sub> 5.4 cm	Len: 51 cm	Mass: 129 g
	Centering Ring	Cardboard (0.68 g/cm³)	Dia <sub>in</sub> 3.1 cm Dia <sub>out</sub> 5 cm	Len: 0.7 cm	Mass: 3.99 g
	Centering Ring	Cardboard (0.68 g/cm³)	Dia <sub>in</sub> 2.5 cm Dia <sub>out</sub> 5 cm	Len: 0.2 cm	Mass: 2 g
	Rail Button	Delrin (1.42 g/cm³)		Len: 0 cm	Mass: 0.6 g
	Mass Component		Dia <sub>out</sub> 2.86 cm		Mass: 93 g
	Trapezoidal Fin Set (4)	Cardboard (0.68 g/cm³)	Thick: 0.3 cm		Mass: 22.8 g

