

# Rocket Design



## Cool Rocket Speed

Stages: 1

Mass (with motor): 46,5 g

Stability: 3,49 cal

CG: 24,8 cm

CP: 30,8 cm

### C6-5

Altitude	404 m
Flight Time	19,7 s
Time to Apogee	8,13 s
Velocity off Pad	44,4 m/s
Max Velocity	123 m/s
Velocity at Deployment	N/A
Landing Velocity	50,7 m/s

Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
C6	4 N	1,86 s	11,6 N	7,48 Ns	8,77:1	12,5 g	18/70 mm

### B4-4

Altitude	297 m
Flight Time	16,6 s
Time to Apogee	7,28 s
Velocity off Pad	41,1 m/s
Max Velocity	99,8 m/s
Velocity at Deployment	N/A
Landing Velocity	49,8 m/s

Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
B4	4,04 N	1,3 s	11,7 N	5,28 Ns	9,37:1	8,33 g	18/70 mm

### A8-3

Altitude	142 m
Flight Time	11,3 s
Time to Apogee	5,32 s
Velocity off Pad	46,7 m/s
Max Velocity	61,4 m/s
Velocity at Deployment	N/A
Landing Velocity	42 m/s

Motor	Avg Thrust	Burn Time	Max Thrust	Total Impulse	Thrust to Wt	Propellant Wt	Size
A8	5,11 N	0,52 s	12 N	2,68 Ns	13,10:1	3,12 g	18/70 mm

## Parts Detail

Hauptstufe

	Spitze	Papier (Büro) (0,82 g/cm <sup>3</sup> )	Konisch	Len: 6cm	Mass: 1g
	Körperrohr der Spitze	Papier (Büro) (0,82 g/cm <sup>3</sup> )	Dia <sub>in</sub> 1,67cm Dia <sub>out</sub> 1,7cm	Len: 3cm	Mass: 1g
	Verbindungshülse	Papier (Büro) (0,82 g/cm <sup>3</sup> )	Dia <sub>in</sub> 1,57cm Dia <sub>out</sub> 1,6cm	Len: 6,2cm	Mass: 1g
	Balastkammer	Papier (Büro) (0,82 g/cm <sup>3</sup> )	Dia <sub>in</sub> 1,47cm Dia <sub>out</sub> 1,5cm	Len: 0,5cm	Mass: 0,029g
	Masse		Dia <sub>out</sub> 1cm		Mass: 2g
	Körperrohr	Papier (Büro) (0,82 g/cm <sup>3</sup> )	Dia <sub>in</sub> 1,67cm Dia <sub>out</sub> 1,7cm	Len: 28cm	Mass: 4g
	Schubring	Papier (Büro) (0,82 g/cm <sup>3</sup> )	Dia <sub>in</sub> 1,57cm Dia <sub>out</sub> 1,6cm	Len: 18cm	Mass: 1g
	Schockband mit Gummidämpfer und Ankern	Faden (stark) (0,3 g/m)		Len: 40cm	Mass: 2g
	Finnen (4)	Papier (Büro) (0,82 g/cm <sup>3</sup> )	Thick: 0,015cm		Mass: 0,612g