







# Parts Detail

## Sustainer

	Nose cone	PVC (1.39 g/cm <sup>3</sup> )	Ogive	Len: 304.8mm	Mass: 83.792g
	Mass component		Dia <sub>out</sub> 43.18mm		Mass: 60g
	Mass component		Dia <sub>out</sub> 38.1mm		Mass: 60g
	Body tube	Cardboard (0.68 g/cm <sup>3</sup> )	Dia <sub>in</sub> 46mm Dia <sub>out</sub> 50mm	Len: 177.8mm	Mass: 36.464g
	Tube coupler	Cardboard (0.68 g/cm <sup>3</sup> )	Dia <sub>in</sub> 46mm Dia <sub>out</sub> 46mm	Len: 50.8mm	Mass: 0g
	Bulkhead	Plywood (birch) (0.63 g/cm <sup>3</sup> )	Dia <sub>out</sub> 46mm	Len: 2mm	Mass: 2.094g
	Bulkhead	Plywood (birch) (0.63 g/cm <sup>3</sup> )	Dia <sub>out</sub> 46mm	Len: 2mm	Mass: 2.094g
	Mass component		Dia <sub>out</sub> 12.7mm		Mass: 20g
	Bulkhead	Plywood (birch) (0.63 g/cm <sup>3</sup> )	Dia <sub>out</sub> 46mm	Len: 2mm	Mass: 2.094g
	Mass component		Dia <sub>out</sub> 45.72mm		Mass: 50g
	Body tube	Cardboard (0.68 g/cm <sup>3</sup> )	Dia <sub>in</sub> 46mm Dia <sub>out</sub> 50mm	Len: 304.8mm	Mass: 62.509g
	Centering ring	Plywood (birch) (0.63 g/cm <sup>3</sup> )	Dia <sub>in</sub> 27.94mm Dia <sub>out</sub> 46mm	Len: 2mm	Mass: 1.321g
	Centering ring	Plywood (birch) (0.63 g/cm <sup>3</sup> )	Dia <sub>in</sub> 27.94mm Dia <sub>out</sub> 46mm	Len: 2mm	Mass: 1.321g
	Freeform fin set (4)	Plywood (birch) (0.63 g/cm <sup>3</sup> )	Thick: 3mm		Mass: 23.177g
	Engine block	Cardboard (0.68 g/cm <sup>3</sup> )	Dia <sub>in</sub> 10.16mm Dia <sub>out</sub> 22.86mm	Len: 5mm	Mass: 1.12g
	Inner Tube	Cardboard (0.68 g/cm <sup>3</sup> )	Dia <sub>in</sub> 24mm Dia <sub>out</sub> 27.94mm	Len: 88.9mm	Mass: 9.716g
	Parachute	Ripstop nylon (67 g/m <sup>2</sup> )	Dia <sub>out</sub> 355.6mm	Len: 86.36mm	Mass: 8.849g
	Shroud Lines	Thread (heavy-duty) (0.3 g/m)	Lines: 6	Len: 1,219.2mm	
	Shock cord	Tubular nylon (11 mm, 7/16 in) (13 g/m)		Len: 914.4mm	Mass: 11.887g

