

**WING (LH&RH)****Estimated Weight**

Description	Volumen	Area	Lenght	Thk
RIB_1_Wing		0,014		1
RIB_2_Wing		0,012		1
RIB_3_Wing		0,01		1
RIB_4_Wing		0,008		1
RIB_5_Wing		0,006		1
RIB_6_Wing		0,005		1
RIB_7_Wing		0,004		1
RIB_8_Wing		0,003		1
RIB_9_Wing		0,002		1
RIB_9_Bis_Wing		0,002		1
RIB_10_Wing		0,002		1
RIB_11_Wing		0,001		1
RIB_12_Wing		0,001		1
Rod Spar1_Dia 10_Th0,5			0,95	
Rod Spar2_Dia 15_Th0,5			0,346	
Rod Spar3_Dia 20_Th0,5			0,952	
Rod Spar4_Dia 15_Th0,5			0,337	
Rod Spar5_Dia 10_Th0,5			0,939	
Rod Spar6_Dia 10_Th0,5			0,223	
Rod Spar1_WT_Dia 8_Th0,5			0,215	
Rod Spar5_WT_Dia 8_Th0,5			0,204	
Wing_Tip		0,04		0,5
Lower_Panel		0,2907		0,8
Upper_Panel		0,3553		0,5
Polyurethane Foam 48kg/m <sup>3</sup>	0,009			
Pylon Cover Surface		0,03		
Pylon attachment AL7075 Fitting (2 Ud)	0,00004			
Leading Edge Reinforcement Tape			1,72	
Treating Edge Reinforcement Tape			1,496	
Standards				

**Fuselaje****Estimated Weight**

Description	Volumen	Area	Lenght	Thk
RIB_1_Fus		0,008		0,5
RIB_2_Fus		0,014		0,5
RIB_3_Fus		0,209		0,5
RIB_4_Fus		0,026		0,5
RIB_5_Fus		0,026		0,5
RIB_6_Fus		0,051		1
RIB_7_Fus		0,072		1
RIB_8_Fus		0,073		2
RIB_9_Fus		0,035		1
RIB_10_Fus		0,032		1
RIB_11_Fus		0,025		1

RIB_12_Fus		0,066		2
RIB_13_Fus		0,052		1
RIB_14_Fus		0,017		1
RIB_15_Fus		0,064		2
Stringer_1_Fus		0,014		0,5
Stringer_2_Fus		0,054		1
Stringer_3_Fus_LH		0,019		1
Stringer_3_Fus_RH		0,019		1
Stringer_4_Fus_LH		0,029		1
Stringer_4_Fus_RH		0,029		1
Stringer_5_Fus_LH		0,006		1
Stringer_5_Fus_RH		0,006		1
Stringer_6_Fus_LH		0,009		1
Stringer_6_Fus_RH		0,009		1
Stringer_7_Fus_LH		0,019		2
Stringer_7_Fus_RH		0,019		2
Stringer_8_Fus_LH		0,003		1
Stringer_8_Fus_RH		0,003		1
Stringer_9_Fus_LH		0,004		1
Stringer_9_Fus_RH		0,004		1
Stringer_10_Fus		0,005		1
Stringer_11_Fus		0,005		1
Central_Wall LH		0,113		1
Central_Wall RH		0,113		1
Lateral_Wall_LH		0,128		1
Aramid Honeycomb Lateral_Wall_LH	0,001			
Lateral_Wall_RH		0,128		1
Aramid Honeycomb Lateral_Wall_RH	0,001			
Cover NLG		0,167		0,5
Foam_Fuse_48kg/m <sup>3</sup>	0,018			
Fwd_Skin_Fuse		0,251		0,5
Ctr_Skin_Fuse		1,45		0,5
Rib_1_VTP		0,008		2
Rib_2_VTP		0,003		1
Rib_3_VTP		0,002		1
Rib_4_VTP		0,001		1
Rib_5_VTP		0,001		1
Rib_6_VTP		0,001		1
Rib_7_VTP		0,001		1
Foam_VTP_48kg/m <sup>3</sup>	0,0006			
Skin_VTP		0,113		0,5
Rib_1_Rudder		0,002		1
Rib_2_Rudder		0,002		1
Rib_3_Rudder		0,002		1
Rib_4_Rudder		0,001		1
Rib_5_Rudder		0,001		1
Rib_6_Rudder		0,001		1
Rib_7_Rudder		0,001		1
Rod Rudder_dia 10_th_1			0,12	1
Foam_Rudder_48kg/m <sup>3</sup>	0,0004			

Skin_Rudder		0,094		0,5
Reinforcements, standards and seals				

### Hover\_Motor\_Attachment (4 Ud)

Estimated Weight

Description	Volumen	Area	Lenght	Thk
Bending_Rod_Motor_1 Dia 40_Thk_1			0,504	
Motor Support AL 7075 with rod attachts	3,66E-05			
Tension Rod motor - Fuse dia 10_ Th0,5 (end junctions inc)				
Lower Rod Fitting Al7075	0,00001828			
Fasteners				

### General Cargo Tray

Estimated Weight

Description	Volumen	Area	Lenght	Thk
Lower Panel		0,18		0,5
Lower Panel		0,17		0,5
HRH-36 honeycomb + epx res	0,002			
Lateral Skin				1
Specific latches _25 N shear (4 ud)				
Al2024 Belt Attachment (8 ud)	1,86E-05			
Fasteners & Seals				

### Landing Gear 25 Kg MTOW

Estimated Weight

Description	Volumen	Area	Lenght	Thk
Retract ER-50eVo (3uds)				
MLG carbon Leg (2 Uds)			0,58	
NLG Carbon Leg			0,43	
Wheels & Standars (3 Uds)				

This model is overweight

### Weight saving opportunities

\*Fixed Landing Gear concept: simplify the fuselage's lower surface

\*Redesign fuse & cargo compartment using only two latches on botton surface

\* Optimice the internal ribs distibution