



Projekt/ *Project*: Sea Harrier AV-8A (105 mm version)

Version: 2.0 (02.2026)

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Spezifikationen und Zubehör/ *Specifications and list of components*:

Spannweite/ <i>Wingspan</i>:	1.060 mm
Länge/ <i>Length</i>:	1.350 mm
Flächenbelastung/ <i>Wing load</i>:	Nicht berechnet/ <i>Not calculated</i>
Luft-Geschwindigkeiten/ <i>Air speeds</i>:	50km/h - 160 km/h (gemessen/ <i>measured</i>)
Haupt-EDF/ <i>Main-EDF</i>:	JP Hobby 105mm (CW), 8S (9S), 1150KV -Affiliate Link-
Hauptluftführung/ <i>Main ducting</i>:	Pegasus style
Gewicht/ <i>Flying Weight</i>:	3.3– 3.7 kg (STOL version), max. 4.3 kg (VTOL version)
Standschub / <i>Horizontal thrust</i>:	Appr. 3.6 kg @8S (8S for STOL required) App. 3.9 kg @9S (9S for VTOL required)
Vertikaler Standschub/ <i>Vertical thrust</i>:	Appr. 5.8 kg (VTOL version) @9S main and @4S stabilization
Haupt-Lipo/ <i>Main-Lipo</i>:	9S(6S +3S) Lipo, 65 C, 4.000 mAh (VTOL), 8S (5S + 3S) Lipo 65 C, 4.500 mAh (STOL)
Haupt-Regler/ <i>Main-ESC</i>:	200A - SEQUIRE SQESC 12200 (12S) -Affiliate Link-
Spannungsversorgung/ <i>BEC</i>:	2 x Castle CC BEC , 10A, (4,6V – 9V Out) -Affiliate Link-
Seitenruder Servo/ <i>Rudder servo</i>:	1 x Chaservo DS-06
Querruder Servo/ <i>Ailerons servo</i>:	2 x Chaservo DS-06
Höhenruder Servo/ <i>Elevator servo</i>:	1 x Chaservo DS-09
Landeklappen Servo/ <i>Flaps servo</i>:	2 x Chaservo DS-06
Empfänger/ <i>Receiver</i>:	9 Channels (STOL version), 10 Channels (VTOL version)
Vektorsteuerung/ <i>Thrust vectoring</i>:	2 x Chaservo DS-09
EZF Bug/ <i>Front gear retract</i>:	1 x Pichler size M steerable retract
Lenkung Bugservo/ <i>Front gear servo</i>:	1 x Tower Pro MG90S Micro Servo
EZF Haupt/ <i>Main gear retract</i>:	1 x Pichler size M retract
EZF Fläche/ <i>Wing gear retract</i>:	2 x servoless Mini Retract (25g)
Vorderer Impeller/ <i>Front EDF</i>:	50mm EDF -XFly 2627-KV4600 @4S -Affiliate Link-
Hinterer Impeller/ <i>Back EDF</i>:	50mm EDF -XFly 2627-KV4600 @4S -Affiliate Link-
Flächenimpeller/ <i>Wing EDF</i>:	2 x 40mm EDF -Xfly, 5850KV @4S -Affiliate Link-
Stabi-Regler/ <i>Stabilization-ESC's</i>:	1 x SpeedyBee F7 V3 BL32 50A or 4 x 70A - SEQUIRE SQESC 2670 Brushless ESC 2-6S Lipo -Affiliate Link-
Yaw Servo/ <i>Yaw servo</i>:	2 x Chaservo DS-06
Stabi-Lipo/ <i>Leveling-Lipo</i>:	4S LiPo, 3000 mAh, 40C
Stabi-System/ <i>Leveling system</i>:	KK2.1.5 board – “OpenAero V1.6” flashed (VTOL version)

IMPORTANT information for all VTOL-builders of our Sea Harrier (105mm version)!



1. The overall flying weight has to stay under **4,3 kg**. Therefore we recommend to use the fixed gear setup given in the files to achieve this and save weight. You want the plane as light as possible to perform without losing necessary integrity.
2. Print the parts with the recommended material (LWASA) and the recommended print profile in terms of wall loops and infill density!
3. Use only reliable Lipos that deliver the stated discharge rate (C rate)! - E.g. SLS Quantum-Lipos from <https://www.stefansliposhop.de>
4. Only use the recommended EDF's and ESC's from this Spec sheet as these are tested with the given plane setup!
5. We like the KK 2.1.5 controller board cause its simplicity. However you will have to learn and understand how to deal with this board! The offered profile on the webpage may help as a very good starting point for required fine tuning! Every VTOL plane behaves differently.

WICHTIGE Information für alle VTOL-Bauer unserer Sea Harrier (105-mm-Version)!



1. Das Gesamtgewicht im Flug muss unter 4,3 kg bleiben. Daher empfehlen wir, das in den Dateien angegebene feste Fahrwerk zu verwenden, um dies zu erreichen und Gewicht zu sparen. Das Flugzeug sollte so leicht wie möglich sein, um die Flugeigenschaften ohne Einbußen bei der Stabilität zu gewährleisten.
2. Druckprofil hinsichtlich Wandstärke und Füllichte!
3. Verwenden Sie ausschließlich zuverlässige LiPo-Akkus, die die angegebene Entladerate (C-Rate) liefern! – Z. B. SLS Quantum-LiPos von <https://www.stefansliposhop.de>
4. Verwenden Sie nur die in diesem Datenblatt empfohlenen Impeller und Regler, da diese mit der angegebenen Flugzeugkonfiguration getestet wurden!
5. Wir bevorzugen das KK 2.1.5 Controller-Board aufgrund seiner Einfachheit. Sie müssen sich jedoch mit der Bedienung des Boards vertraut machen! Das auf der Webseite angebotene Profil kann als guter Ausgangspunkt für die erforderliche Feinabstimmung dienen! Jedes VTOL-Flugzeug verhält sich anders.

Additional Information:

An actual **RC-Jetprint LWASA-profile** for the Bambulab X1C and P1S printer will be part of the downloadable file-set! This profile is tested on ColorFabb LWASA only.

The file names within the complete STL-file set are organized and to read as follows:

Zusätzliche Informationen:

Ein RC-Jetprint LWASA-Profil für den Bambulab X1C und P1S-Drucker ist im Download-Dateisatz enthalten! Dieses Profil wurde ausschließlich mit ColorFabb LWASA getestet.

Die Dateinamen im vollständigen STL-Dateisatz sind wie folgt aufgebaut:

“Part name” – “Material to print” – “Recommended infill density” – “Recommended wall loops”

Example: “Fuse section part 2-LWASA 5-1”

Material for this part to use is: **LWASA**

Recommended infill density is: **5%**

Recommended wall loops is: **1**

Sea Harrier additional partlist		
Items and Accessories		
<i>Part / Material</i>	<i>Amount</i>	<i>Keywords for Search and (Usage)</i>
LW-ASA	2,5 kg	Colorfabb
PLA	200g	Colorfabb
PLA-CF	300g	Bambulab
Carbon Rod 1,5mm	3m	Carbon Rod 1,5mm (Parts and Struts reinforcements)
Carbon Rod 2mm	0,5m	Carbon Rod 2mm (Vertical stabilizer, Ailerons, Flaps)
Carbon Tube 4mm	0,5m	Carbon Tube 4mm (Elevator and Fuse reinforcements)
Carbon Tube 5mm	2m	Carbon Tube 5mm (Fuse reinforcement, Yaw hinges)
Carbon Tube 6mm	1,5m	Carbon Tube 6mm (Wings and Vertical stabilizer)
Carbon Tube 8mm	0,3m	Carbon Tube 8mm x 1mm (for fixed landing gear struts)
Carbon Tube 10mm	0,3m	Carbon Tube 10mm x 1mm (for fixed landing gear struts)
Super Glue Thin, Medium, Thicke	30g each	Super Glue Thin, Medium, Thicke
Accelerator for Superglue	100ml	Accelerator for Superglue
Sand Paper	1m	Sand Paper 80Grid, 120Grid
Magnets 5x5x5	4	Magnets 5x5x5 (for canopy)
Magnets 5x5x2	14	Magnets 5x5x2 (for covers)
Steel balls 4mm	12	Nozzle function
M5 x 20mm Nylon Screw	1	M5 x20mm Nylon Screw (Wing fixation)
M5 Nut Nylon	1	M5 Nut Nylon (Wing fixation)
M2 ball linkages	32 pcs	(8 for gear doors, 8 for nozzles, 16 for rudder functions)
M2 threaded rod	1m	(for all linkages)
Steel wire 0.4 mm	0,4m	(for front wheel linkage)
Pressure springs - 8mm	2	8 x 40 mm spring (for fixed landing gear) -Affiliate Link-
Gear wheel - front	1 pc	55mm foam wheel (fixed gear), 50mm foam wheel (retracts)
Gear wheels - main	2 pc	60mm foam wheel (fixed gear), 55mm foam wheel (retracts)
Gear wheels - wings	2 pc	35 mm foam wheel
Tension springs - 3mm	3 pc	10 mm long very soft tension (for gear door mechanism)
Tension springs - 6mm	4 pc	20 mm long - Hard tension (for retractable landing gear)
M2 screws and nuts (several lengths)	40 pc	(for linkage connections, gear door mechanism, strut spring retentions, wheel axis wing gear)
M3 screws and nuts (several lengths)	20 pc	(for retract fixation, wheel axis front gear and main gear)

Hinweise:

Die hier gelisteten Komponenten sind Empfehlungen des Projekteigentümers, die ausgesucht und getestet wurden, um ein optimiertes Schub-Gewichtsverhältnis darzustellen, bei gleichzeitiger verlässlicher Funktionalität der Komponenten. Die Druckdateien sind auf diese Komponenten ausgelegt!

Notes:

The components listed are the project owners recommendations that have been selected and tested to provide an optimized thrust-to-weight ratio while maintaining reliable component functionality. The print files are designed for these components!