



Projekt/ Project: Do-31 (in work)

Version: 1.0 (04.2023)

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Veröffentlicher/ Published by: RC-Jetprint.de

Spezifikationen und Zubehör/ Specifications and list of components:

| | |
|--|---|
| Spannweite/ Wingspan: | 1.900 mm |
| Länge/ Length: | 1.750 mm |
| Flächenbelastung/ Wing load: | Nicht berechnet/ Not calculated |
| Luft-Geschwindigkeiten/ Air speeds: | Nicht gemessen/ Not measured |
| Haupt-EDF/ Main-EDF: | 1 x JP Hobby 90mm, 12S 1080KV (CW) 1 x JP Hobby 90mm, 12S 1080KV (CCW) |
| Hauptluftführung/ Main ducting: | 2 x Pegasus style |
| Gewicht/ Weight: | 10 kg (incl. LiPo's) |
| Standschub / Horizontal thrust: | 8 kg (tbd) |
| Vertikaler Standschub/ Vertical thrust: | 13 kg (tbd) |
| Haupt-Lipo's/ Main-Lipo's: | 2 x Goaneng (6S), 7000 mAh, 70C 1 x Goaneng (4S), 8500 mAh, 140C |
| Regler/ ESC: | 2 x 200A - APD HV 200F3 (14S) or 2 x JP Hobby Mantis 150A HV ESC 6-12S OPTO |
| Spannungsversorgung/ BEC: | 2-6S Matek UBEC Duo 4A (5V-12V) + 4A (5V) |
| Seitenruder Servo/ Rudder servo: | 1 x AGFRC, B26CLM, 10.5kg |
| Querruder Servo/ Ailerons servo: | 2 x AGFRC, B26CLM, 10.5kg |
| Höhenruder Servo/ Elevator servo: | 2 x AGFRC, B26CLM, 10.5kg |
| Landeklappen Servo/ Flaps servo: | 2 x AGFRC, B26CLM, 10.5kg |
| Empfänger/ Receiver: | 9 Channels |
| Vektorsteuerung/Thrust vectoring: | 8 x Hitec MD-65-MW (programmierbar/ programmable) |
| Lenkung Bugservo/ Front gear servo: | 1 x MG90S Micro servo |
| Klappenservo/ Door servo: | 5 x MG90S Micro servo |
| EZF set/ Gear retract set: | JP Hobby ER-008, 9mm Alloy Electric 3 Retracts Set (9kg/Low/Outside-Inside) |
| EZF-Modul/ Gear sequencer module: | JP Hobby Multifunction Landing Gears and Doors Sequencer V1/V2 for ER-08 |
| Hinterer Impeller/ Back EDF: | (VTOL version) - 1 x QX Motor, 50 mm – 5.000KV (CW) |
| Flächenimpeller/ Wing EDF: | (VTOL version) - 4 x QX Motor, 50 mm – 5.000KV (CW) (VTOL version) - 4 x QX Motor, 50 mm – 5.000KV (CCW) |
| Yaw Servo/ Yaw servo: | 2 x Micro servo Torcster NR-54 MG (VTOL version) |
| Stabi-System/ Leveling system: | KK2.1.5 board – "OpenAero V1.6" flashed (VTOL version) |
| Telemetrie/ Telemetry: | Pitot tube – Spektrum SPMA9588 |

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!**

| Do-31 additional Partlist | | |
|--|---------------|--|
| How to use: | | |
| In reason that direct links can change, please use the given Keywords for your search engine. If you can't find the explicit product, you can also choose one with equivalent technical data. More details you will find on the Youtube tutorials: | | |
| Parts / Material needed for all versions | | |
| Part / Material | Amount | Keyword for Search/ Direct Link |
| LW-PLA | 3 kg | LW-PLA (colorFabb) |
| PLA | 0,5 kg | PLA (colorFabb) |
| Carbon Roving 1600tex | 5m | Carbon Roving 1600tex |
| Epoxy Resin + Hardener | 200g | Epoxy Resin + Hardener |
| Carbon Tube 20mm | 4m | |
| Carbon Tube 10mm | 4m | |
| Carbon Tube 15mm | 1m | |
| Carbon Tube 5mm | 1m | |
| Carbon Tube 4mm | 0.5m | |
| Super Glue Thin, Medium, Thicke | 50g each | Super Glue Thin, Medium, Thicke |
| Accelerator for Superglue | 100ml | Accelerator for Superglue |
| Sand Paper | 3m | Sand Paper 80Grid, 120Grid |
| Magnets 5x5x5 | 15 | Magnets 5x5x5 |
| M5 x20mm Nylon Screw | 5 | M5 x20mm Nylon Screw |
| M5 Nut Nylon | 5 | M5 Nut Nylon |
| M4 x20mm Nylon Screw | 8 | M4 x20mm Nylon Screw |
| M4 Nut Nylon | 8 | M4 Nut Nylon |
| Linkages | | |
| Ball joints | 30 | Ball joints M2 - 3 mm M1.6 |
| M2 threaded rod | 1m | M2 threaded rod |
| Wheels | | |
| Front and main wheels (up to 70mm x 18mm) | 6 | |
| Steel wire for front wheel | 0,5m | 0,5 - 1,0mm steel wire |
| Specials for VTOL version | | |
| Nozzle servo programmer | 1 | DPC-11(Hitec Universal-Servoprogrammer) |
| Steel Balls | 24 | 3,5mm steel balls |