

EFX Racer 2 servo wing setup for FrSky Taranis v2.0



This setup is optimised for the Duraflly EFX Racer. This is an OpenTX 2.x EEPE, and is for a model with ailerons connected on separate channels (2 and 3).

Important notes:

- ***This is a complex setup, so please triple check all controls in all flight modes and ensure you understand the setup before committing to flight!***
- ***Do not use this EEPE directly on your Taranis. Instead read the current EEPE from your transmitter into Companion, and then copy the relevant model setup (3S or 4S) from my EFX EEPE to a spare slot in the file from your transmitter. Save that on your PC, and then push it back to your Taranis; this will ensure the model file will work in your preferred transmitter mode.***

General features (all flight modes):

- Throttle kill on switch SF with pre-flight check reminder.
- Flight countdown (reset by throttle kill on switch SF) and total model time timers.
 - 4S memory set at 3.45 flight time; 3S at 6.00.
- Flight time remaining called out by short press of switch SH.
- RSSI called out by long press of switch SH.
- Speaker volume adjustable via S2.
- Model name announcement on start-up/selection.
- EFX racer BMP file included.

Flight mode specific features:

There are 6 flight modes – Takeoff, Acro-low, Acro-med, Acro-high, Speed and Landing.

Takeoff (selected by SE↑)

- Throttle limited to 90% to prevent excessive torque on takeoff; custom curve to remove non-linear throttle response (curve 1).
- No selectable rates (defaults to medium rate aileron, low rate elevator, low rate rudder).
- Takeoff mixes - For 10 seconds after motor live (SF↓) and 5 seconds after throttle stick advanced past half throttle (0) point:
 - 10% up trim to help with solo one handed launches (particularly for RH mode 1 flyers).
 - 30% coupled aileron→rudder to help with corrections to counteract torque.

Aerobatics (SE-; Acro-low selected by SA↑, Acro-med SA-, and Acro-high SA↓)

- Throttle limited to 90% for improved battery life and flight duration (custom curve 1).
- Triple rates (aileron, elevator and rudder) on switch SA (actually flight mode changes).
- Knife edge compensation mix (Rud→Ele), set to zero weight by default (configured by curve 3).
- Snapflap (elevator to flap) mixing available (default 30% weight; configured by curve 2).
 - Snapflap volume adjustment on pot S1.
 - Snapflap suppression on switch SG.

Speed (selected by SE↓)

- 100% throttle available; custom curve for increased resolution at high throttle settings (curve 4).
- “Nagging Nora” max power warning when at uninterrupted full throttle for 25 seconds or longer.
- No selectable rates (defaults to low rate aileron, low rate elevator, 0% rudder to prevent tail wagging).
- Snapflap (elevator to flap) mixing available (default 30% weight; configured by curve 2).
 - Snapflap volume adjustment on pot S1.
 - Snapflap suppression on switch SG.

Landing (selected by RS↓; overrides all other flight modes)

- Throttle limited to 90% to prevent excessive torque effect on a go around; custom curve 5 moves throttle to top half of stick movement (0 to +100%).
- Flaps and airbrakes (reflexed ailerons) activated by throttle stick from 0 to -100% (custom curve 6):
 - No flaps or brakes activated whilst motor on (throttle stick 0 to +100%).
 - Flaps deployed between throttle stick settings of 0 and -20%
 - Brakes deployed (ailerons go up) from throttle stick settings of -20 to -100%; elevator compensation available in mixer, zero weighted by default (direction still to be determined).
 - Negative aileron differential programmed with brakes (two levels, activated at -30 and -90 throttle stick travel respectively using GVAR1).
 - For large brake settings (throttle stick <-90), 30% coupled aileron→rudder mix activated.
- No selectable rates (defaults to medium rate aileron, high rate elevator, med rate rudder).

All changes are confirmed verbally when activated, and the sound files used are attached with the EEPE – simply paste them into the “Sounds” folder on your Taranis. Happy flying!

Matt Brett, Oct 2014

Pre-flight checks / Disclaimer - Although this setup has been tested in OpenTX Companion, it's up to you the pilot to make sure all controls respond correctly under all conditions. I cannot be held responsible for any bugs in the setup or documentation, so please remember to test your model setup thoroughly before flying!