

E-Soar Plus 3.0.1 with Fast Idle

Introduction

This version of ESP 3.0.1 is modified for F5J competition use. Specifically, it incorporates a 'fast idle' facility which prevents the motor from stopping if the motor lever is moved to idle accidentally during the 30 second motor run.

Once the motor starts running, it cannot be shut down except by disarming.

Arming is via 2-position 'smart' switch, default SF (arming option 3 in E-Soar Plus).

Workflow

1. Arm the motor.
2. Advance the throttle. The throttle switches to 'fast idle' curve.
3. Disarm to stop the motor.
4. Repeat the cycle as required.

How it works

When the setup enters Power mode, the throttle mix latches on to curve 'Mc2'. This prevents the motor from stopping. The idle value (F) is set in three places:

- Point 1: $(-100, F)$
- Point 2 (F, F)

Example: say the minimum throttle is 10% of the range, then set $F = (100 - 2*10) = -80$

Changes from ESP 3.0

The changes are very simple and could be merged easily into existing setups.

See *changes from 3.0.pdf*. Summary as follows:

- new curve Cv10: 'Mc2'
- additional mix line in CH18. *Note that this is a 'replace' mix, and must be last in the channel!*
- logical switch mods to L4 and L5 (for arming option 3 via 'smart' switch SF)

Disclaimer

This setup has only been tested on the sim. The author is not responsible for bugs or errors - please test on the bench with motor/prop in safe state. Test and test again.

If in doubt, do not fly!