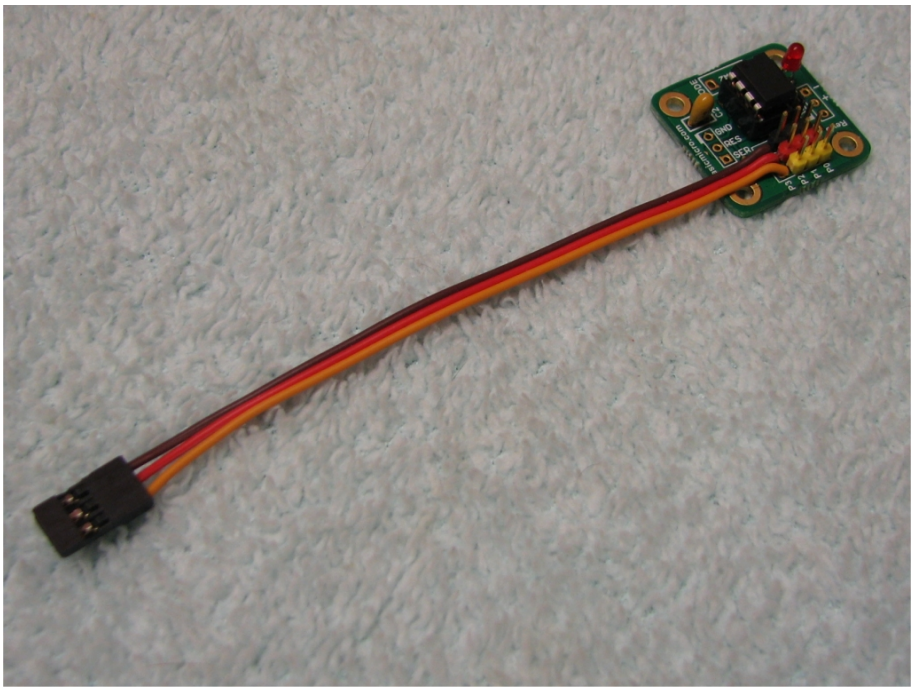
A momentary channel-switched Single-Channel Compound Actuator Emulator



This module exactly emulates the operation of a compound escapement setup such as the Elmic Compact and Corporal for rudder, kick-up elevator and quick-blip throttle. If you're more familiar with the old motorised actuators such as the Minimite and Minimo, this module works just the same way.

The module lives onboard, inside the model, and crucially it connects to a momentary switched channel on a conventional propo receiver. A momentary button or sprung toggle acts as the S/C 'tone' but with modern micro-servos replacing the old escapements inside the model.
Small, lightweight servos give a considerable weight saving over the old S/C actuators and their convoluted battery requirements.

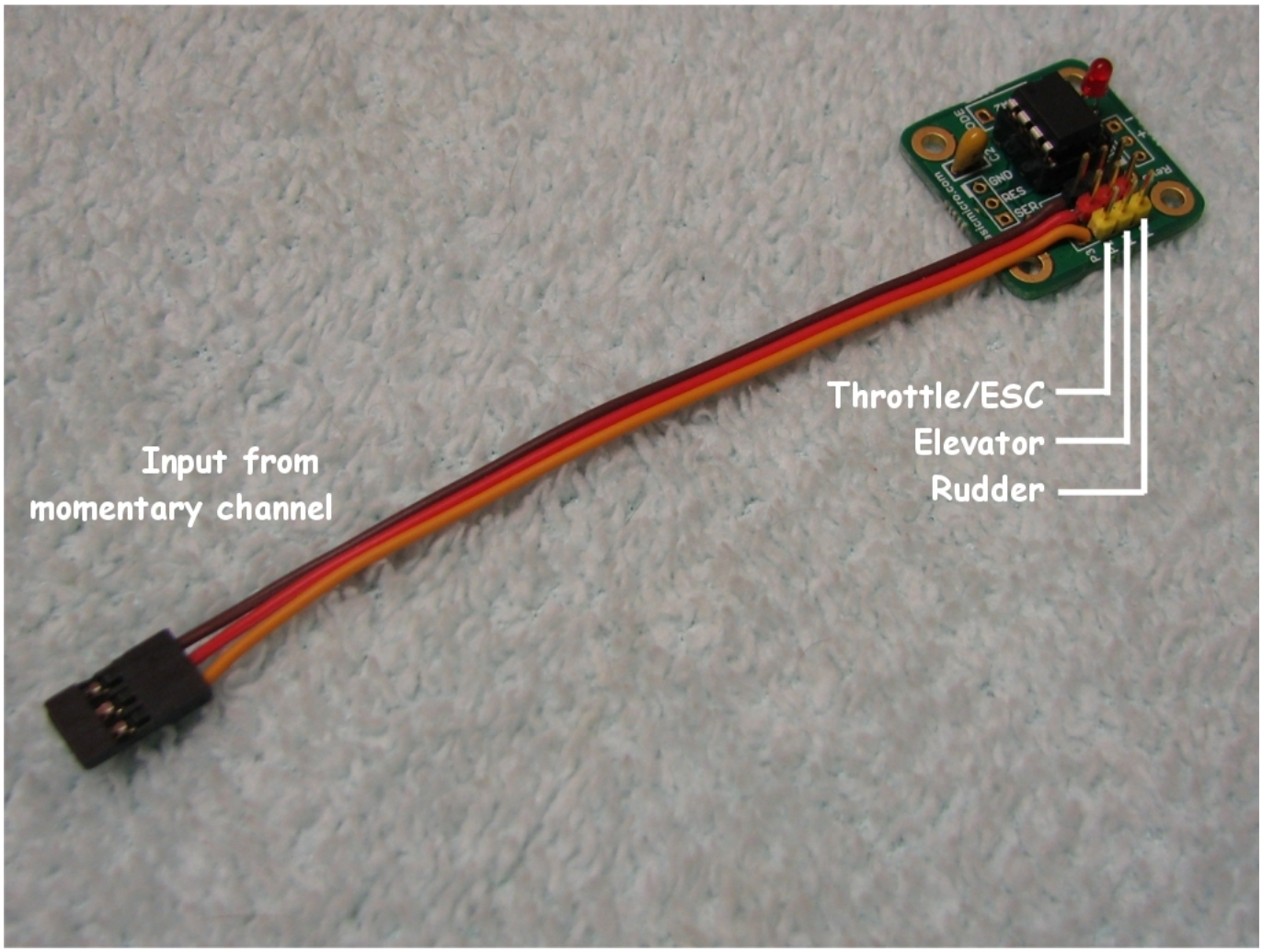
Connecting up

When used with a throttle servo (ie in an IC engined model) power for the emulator and servos is from the receiver when connected to the momentary channel output (aux, etc) and so everything runs from the receiver battery.

If the emulator throttle channel is used with an ESC/BEC in an electric model, then the emulator also powers the receiver via the momentary channel lead and no radio battery is necessary.

The rudder and optionally the elevator and throttle servos are plugged into the black/red/yellow header as shown. Be very careful not to reverse or cross-connect anything.
If an ESC/BEC is used this will be on the throttle connector and will power the whole installation.

Please note that this is a true Single Channel Emulation. Your aileron, elevator, rudder & throttle channels are unconnected and therefore have no effect on the model, neither will any trims.
We are simply using one switched momentary channel to replace the period Single-Channel relay receiver which in turn drives the servos in a true compound emulation.



The servo connections are:

P0: Rudder – one for right, two for left
P1: Kick-up Elevator – third press
P2: Quick-blip throttle – 3 position sequential

That the servo 'signal' cable connects to a momentary switched channel from the receiver.

Power is either a 5v BEC or a 4-cell NiMh. Dont use a 6-cell pack as the voltage is too high.

Take time to practise the cadence of the compound emulation, just as it was back in the day, its a matter of practise makes perfect!

Demo video:

https://www.youtube.com/watch?v=wnuuR53TzWk

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