

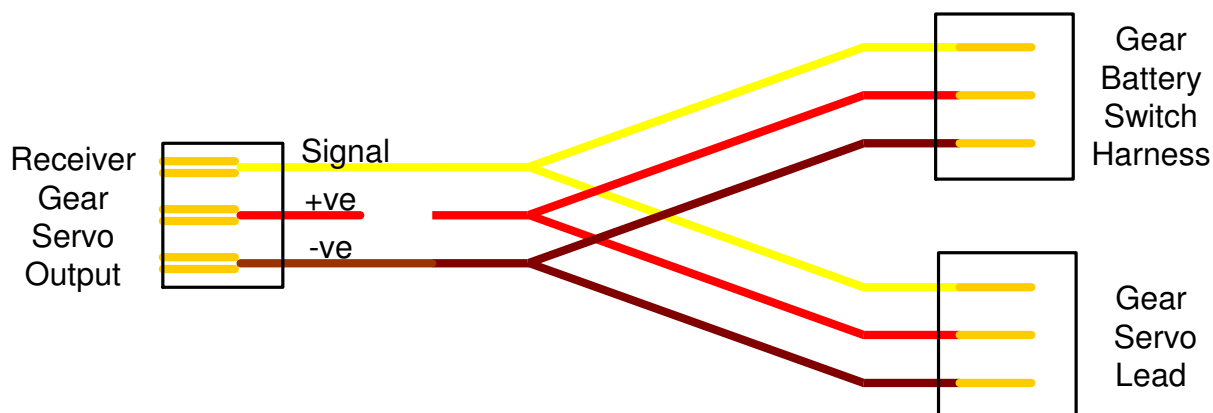
Connecting A Separate Battery Supply To An Undercarriage Servo Using A Y-Lead

A few years back I purchased my first retractable undercarriage aircraft and was wisely advised to fit a secondary battery to power the servo. Why? ... because if the undercarriage sticks it is possible that the servo will be drawing a higher current throughout the flight which would otherwise drain the flight battery with possibly undesirable results.

The retailer also advised that I would need a Y-lead to connect the second battery through it's own switch harness to the servo and said something about having to cut a wire. Like a fool I forgot to write down exactly what he said and by the time I got round to doing this I had forgotten almost everything that I had been told, so had to work it out from scratch.

The trick is that we need the -ve connection to be common to the servo, the receiver and the secondary battery; the signal to be common to just the servo and the receiver (which is easy as the battery has no signal wire!); and the +ve to be common between the battery and the servo BUT NOT the receiver, which is where the cutting of the wire comes in to play.

The diagram bellows shows how this is achieved:



Note that +ve wire is cut near to the Receiver connection so that current will flow from the Gear Battery directly to the Gear Servo. This method ensures that the two batteries are not connected in parallel but share a common -ve connection with the receiver. Remove a section of the wire as pictured to prevent accidental shorting.

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