

Build your own BEC

A battery eliminator circuit (BEC) provides a steady voltage to the receiver from the main drive battery, eliminating the need for a second receiver battery. This circuit uses a LM2940, which is a 3 pin voltage regulator device. The circuit is designed to drive a receiver connected to two standard servos or one servo and an electronic speed control from a 6-12 cell battery pack. The device is rated at up to 26v but I have not tried using the circuit on more than 12 cells. I recommend that you add a small heatsink to the regulator if you intend to experiment with larger cell packs or with a larger number of servos. The LM 2940 will provide a 5v output with an input voltage of just 5.5v. Running your cell pack below this voltage can cause cell damage, so the circuit provides a useful safety cut off feature.

This is an ideal introduction to electronic construction as it only consists of three components. If this is your first attempt, make sure that the solder joints are shiny and mechanically sound. Also check that the solder has not bridged the gap between the stripboard tracks. To test the circuit, attach a charged battery to the input wires and check for 5 volts on the receiver wires.

