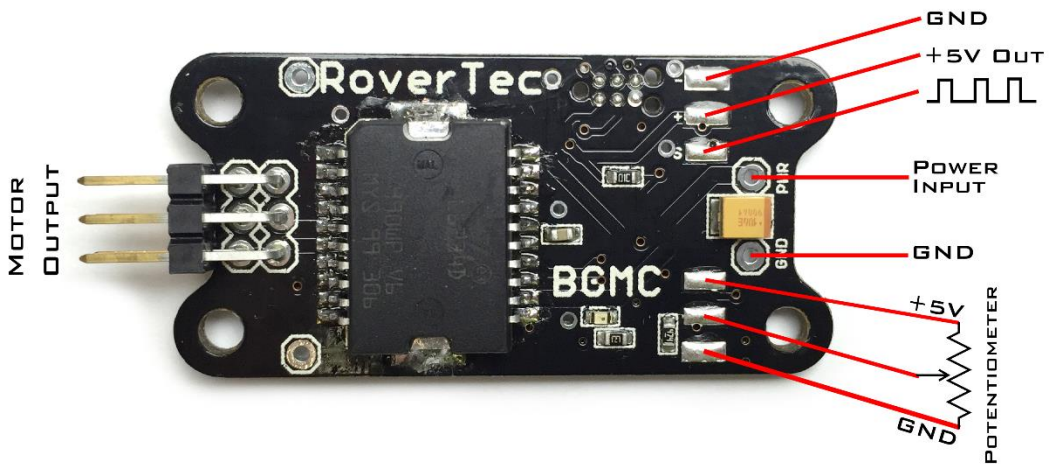
RoverTec BGMC Pro User Guide

Thank you for choosing the RoverTec BGMC Pro for your project/application! Connecting and using this motor controller is quick, easy and straightforward. Refer to the diagram below for wiring information:



- Connect “Power Input” and GND to your 7.4V-20V power supply.
- If using an analog input, such as a potentiometer, solder the three leads to the PCB as shown above. A potentiometer is used as an example, but any 0-5V analog input will be accepted as a control input.
- If using an RC PWM signal input, solder your servo wire to the PCB as shown above.
- The BGMC Pro automatically detects whether or not a potentiometer is connected during its startup procedure. If there is a potentiometer present, it will assume that as the control method. If no potentiometer is present, it will then take control inputs from the RC PWM connection point.
- The BGMC Pro detects a potentiometer by reading the analog voltage it expects to see from the center solder pad. There is a 470k pull-down resistor connecting the center pad to GND. If, during startup, the BGMC Pro sees near 0V on the center pad (because of the pull-down resistor), it assumes there is no potentiometer present, and switches to RC PWM input mode. If it sees any other analog voltage, it will use the potentiometer as the input signal.
- It is possible to have both a potentiometer and RC PWM signal connected simultaneously, and switch between them. If the potentiometer is around the center, or towards the “high” end of its range, the BGMC Pro will default to using this as the input upon powering up. However, if the potentiometer is at the very “bottom” of its range, so that it is essentially connecting the center pad to GND, the BGMC Pro will use the RC PWM input signal.
- If the user wishes to change the input method, the BGMC Pro must be power cycled.