



## PicoBorg - Quad Motor Controller

The PicoBorg is an ultra compact motor controller for the Raspberry Pi! With PicoBorg, you can turn on and off fans, motors, solenoids or relays from your Raspberry Pi. There are 4 low side drivers, so you can turn on and off 4 devices, and one device is connected to the Pi's PWM pin, so you can vary the speed of that motor! Motor control is accessed via a simple GUI, which can be installed by following the PicoBorg installation instructions.

Motor power is not taken directly from the Raspberry Pi, so there's no risk of your Pi dropping out. Instead, the PicoBorg utilises a battery pack to drive the motors; meaning you're not restricted to 5V motors, in fact you can drive ANY motors up to 20V!

We also stock a version with pre-soldered with wires!

**The PicoBorg is perfect for any small motor project, for example:**

- 4 fans on/off control over all and vary speed on one fan
- 4 solenoids
- 4 DC motors (on / off control over all and vary speed on one motor)
- Control one 6 wire stepper motor in both directions
- Rover project!

**The PicoBorg Features:**

- Drive 4 x DC Motors (on/off) or 1 x 6-Wire Stepper motor (Bi-Direction)
- Allows speed control on 1 x Motor
- Max 20V recommended 12V or less
- Max current 2.5A (stall) or less
- Primarily designed to be used with large resistance, low inductance motors and for learning and experimenting purposes.

**Warnings:**

- As there are no pull up or pull down resistors on the inputs, the picoBorg expects the Pi to be controlling the pins when the power is applied. Power the Pi first, run the software and then apply power to the PicoBorg.
- There is no thermal shutoff, keep an eye on temperature of the FETs and diodes
- There is no current limiting, you must observe current restrictions
- There is no short circuit or reverse voltage protection
- For commercial applications and control of larger motors and lower resistance coils etc, PiBorg or PiBorg nano may be a better solution
- If you are new to electronics and getting started, we recommend you don't use a battery, rather a low current <100ma power supply as this can be more forgiving if you get things wrong.
- Be very careful of connections and soldering as mistakes could potentially hurt your picoBorg and Raspberry Pi