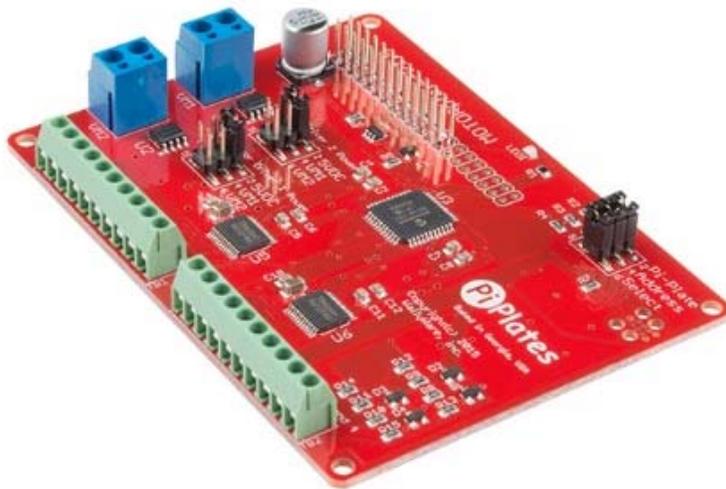




# MOTORplate

DEV-14149 RoHS



**Description:** The MOTORplate from Pi-Plates brings a suite of professional motion control features to your Raspberry Pi. These plates can each control a combination of two stepper motors, four DC motors or one stepper and two DC motors. An onboard microprocessor does all the hard work including controlling acceleration trajectories and microstepping. By offloading these functions, your Raspberry Pi is free to perform other tasks. Use this board to control a precision XY stage driven by stepper motors. Or, drive the treads of your killer robot.

Pi-Plates are a family of stackable and interchangeable add-on circuit boards that allow you to interact with the outside world using your Raspberry Pi. Every Pi-Plate is designed to provide a robust set of features at minimal cost while using the fewest pins possible on the RPi header. Pi-Plates are mechanically and electrically compatible with all revisions of the Raspberry Pi with 40 pin headers (including the Pi 3 Model B and Pi Zero) and are designed to satisfy the needs of hobbyists, experimenters and professionals.

## Features:

- Can drive 2 stepper motors or 4 DC motors or a combination of the two
- Output currents as high as 1.2 amps (avg) and 3.2 amps (peak)
- Motor driving MOS transistors ensure cool and efficient operation
- Auxiliary power inputs with selectors and reverse-voltage protection allow each motor controller chip to be powered by either the:
  - The Raspberry Pi 5VDC supply
  - Dedicated power input (15V MAX)
- Dedicated onboard processor
- Calculates and provides real-time acceleration trajectories
- Only needs two dedicated RPI pins (GPIO 25 and CE1)
- Compatible with all versions of Raspberry Pi
- Design allows up to eight MOTORplate boards to be stacked together for eight times the drive capability: 16 stepper motors or 32 DC motors!
- Uses less than 10mA of DC current during standby<sup>2</sup>
- All inputs ESD and overvoltage protected
- +5 and ground available on terminal blocks for powering hall effect sensors, optoisolators and limit switches
- Includes programmable LED
- Compatible with ServoBlaster