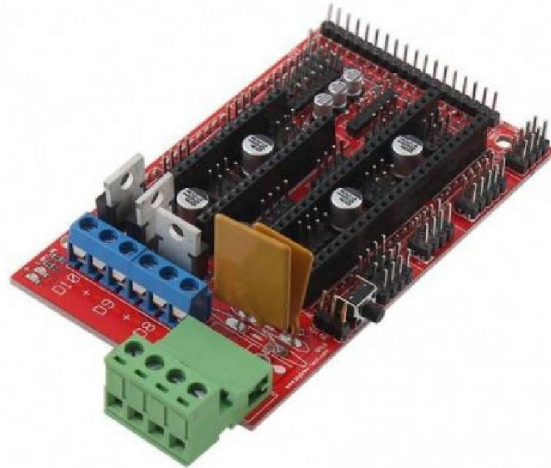# RAMPS 1.4 3D PRINTER CONTROL BOARD

The RAMPS (RepRap Arduino Mega Shield) is an all-in-one design to fit the necessary components for a 3D printer into one plug in shield for an Arduino MEGA. The plug in shield design includes plug in stepper drivers and extruder control electronics sockets for easy service, part replacement, upgrade-ability and expansion. Additionally, a number of Arduino expansion boards can be added to the system as long as the main RAMPS board is kept to the top of the stack. Ramps boards are the heart of most DIY 3D printers on the market and a nice clean compact way to integrate all the systems into a compact enclosure mountable format.

Features:

- Expandable to control other accessories.
- 3 Mosfets for heater / fan outputs and 3 thermistor circuits.
- Fused at 5A for additional safety and component protection
- Heated bed control with additional 11A fuse
- Shield has on pin header sockets so they can be replaced easily or removed for use in future designs.
- Suitable for 2-phase and 4-phase motors
- I2C and SPI pins left available for future expansion.
- Servo style connectors are used to connect to the end stops, motors, and LEDs. These connectors are rated for 3A, very compact, and globally available.
- SD Card add on available
- LEDs indicate when heater outputs on