



## Ks0091 keyestudio 3D Printer Kit RAMPS 1.4 + Mega 2560 + 5x A4988 + LCD 2004 Smart Controller

### Introduction:

#### 1. Keyestudio Mega 2560 board

Keyestudio Mega 2560 R3 is a microcontroller board based on the ATMEGA2560. It has 54 digital input/output pins (of which 15 can be used as PWM outputs), 16 analog inputs, 4 UARTs (hardware serial ports), a 16 MHz crystal oscillator, a USB connection, a power jack, 2 ICSP headers, and a reset button.

#### 2. LCD 2004 Smart Controller

It contains a SD-Card reader, a rotary encoder and a 20 Character x 4 Line LCD display. You can easily connect it to your Ramps board using the "smart adapter" included. After connecting this panel to your Ramps you don't need your pc any more, the Smart Controller supplies power for your SD card.

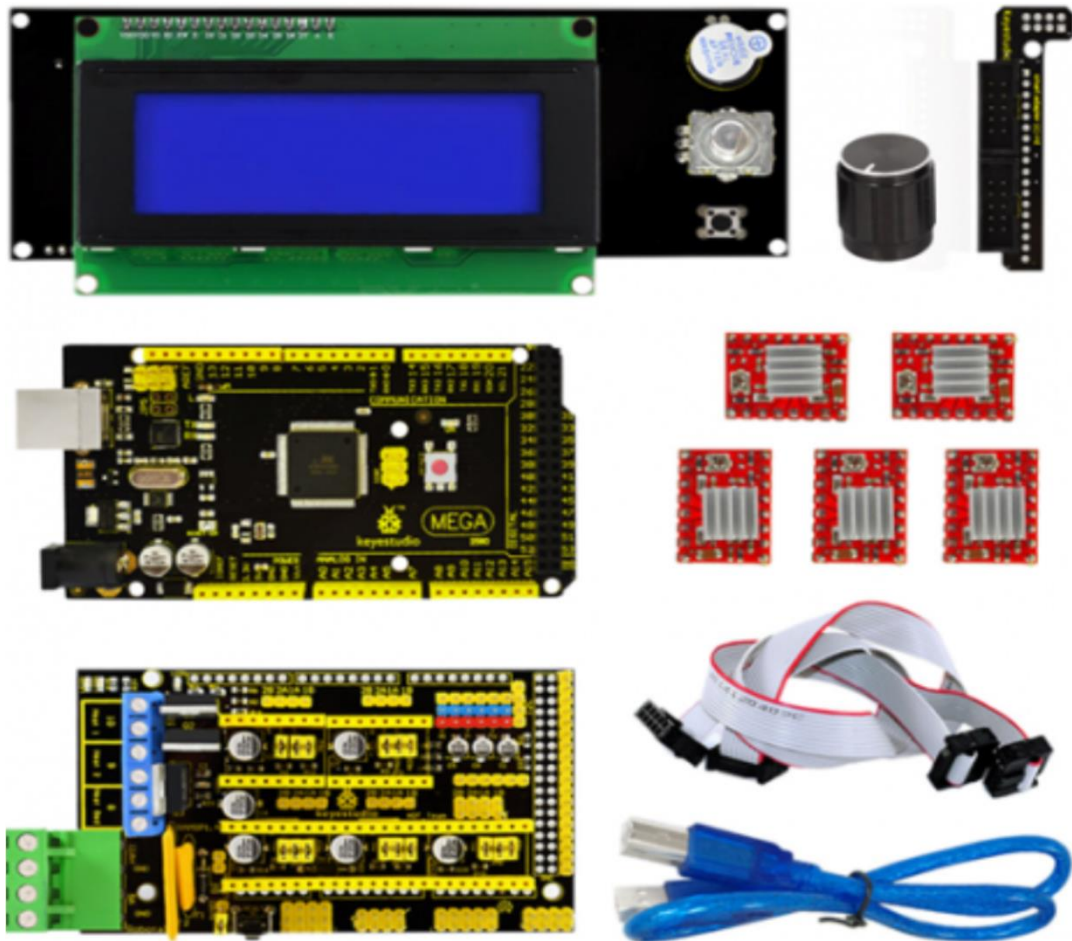
#### 3. RAMPS 1.4

It is a Mega Pololu Shield, or RAMPS for short, designed to fit the entire electronics needed for a RepRap in one small package for low cost. RAMPS interfaces an Arduino Mega with the powerful Arduino MEGA platform and has plenty of room for expansion.

The modular design includes plug-in stepper drivers and extruder control electronics on an Arduino MEGA shield 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.

#### 4. A4988 stepper driver

This product is a carrier board or breakout board for Allegro's A4988 DMOS Microstepping Driver with Translator and Overcurrent Protection by Pololu; we therefore recommend careful reading of the A4988 datasheet before using this product. This stepper motor driver lets you control one bipolar stepper motor at up to 2A output current per coil.



### Resources:

[https://wiki.keyestudio.com/Ks0091\\_keyestudio\\_3D\\_Printer\\_Kit\\_RAMPS\\_1.4 %2B Mega 2560 %2B 5x A4988 %2B LCD 2004 Smart Controller](https://wiki.keyestudio.com/Ks0091_keyestudio_3D_Printer_Kit_RAMPS_1.4_%2B_Mega_2560_%2B_5x_A4988_%2B_LCD_2004_Smart_Controller)