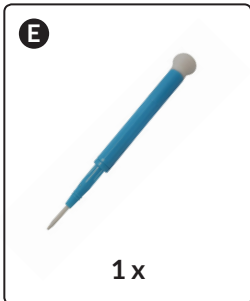
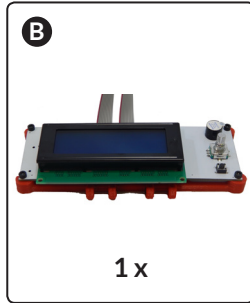
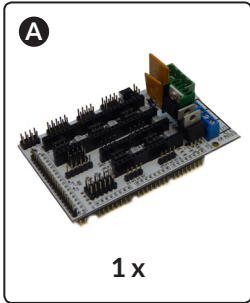


Calibrating the drivers

1

Driver calibration



This step is not necessary to start up the printer and it is not recommended unless you are an advanced user.

It is not necessary to disconnect the RAMPS from the printer to carry out calibration.

A Ramps 1.4

Freaduino Mega 2560 v1.2. Design derived from Arduino Mega 2560 + Ramps 1.4, with the dissipator on the MOSFET of the heated bed.

B LCD

C Power supply unit 220 AC 12 DC 100W

D Multimeter

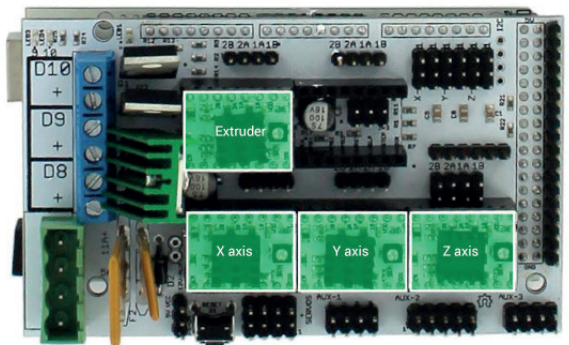
Not included

E Trimmer screwdriver

Ceramic screwdriver for adjusting the current of the Nema 17 bipolar stepper motor drivers and the extruder.

F Driver	Voltage (V)	Amperage (Driver + Board = Total mA)
X axis	0.93 V	250 + 100 = 350 mA
Y axis	0.93 V	250 + 100 = 350 mA
Z axis	1.18 V	400 + 100 = 500 mA
Extruder	1.26 V	680 + 100 = 780 mA

Voltage and amperage of each driver



Assembly:

First connect the LCD control panel to the Ramps, followed by the USB cable (you will hear a beep from the RAMPS).

Measure the voltage between the potentiometer and the GND (1).

Adjust the potentiometer of the driver using the ceramic screwdriver until you achieve the desired voltage (2 and 3). To do this, look at the values in the voltage and amperage table for each driver **F**.

Repeat this adjustment on the drivers of the Y and Z axes and the extruder.

