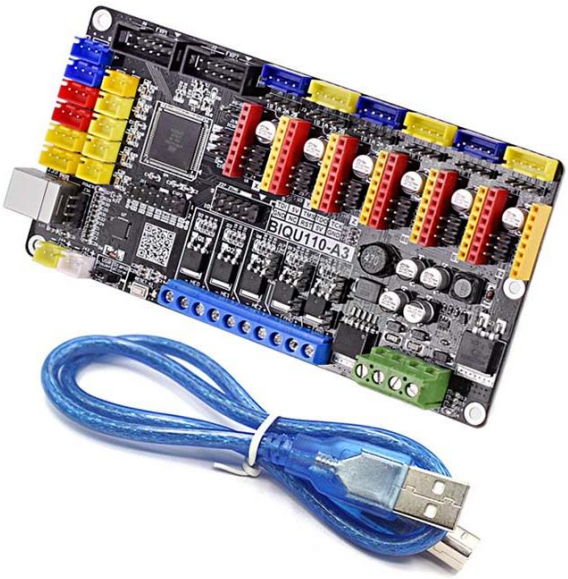
Tango V1.0 3D Printer Motherboard Control Panel



Description:

The electronic part is the brain of the 3D printer, and all movements are controlled by the electronic part. Tango1.0 is an upgrade motherboard on the basis of Rumba MPU. It is a 3D printer control board based on AVR processor ATMEGA2560. This board is specially designed for 3D printers. It supports three colors of consumable printing, which can enable PC to control 3D printer through USB cable connection.

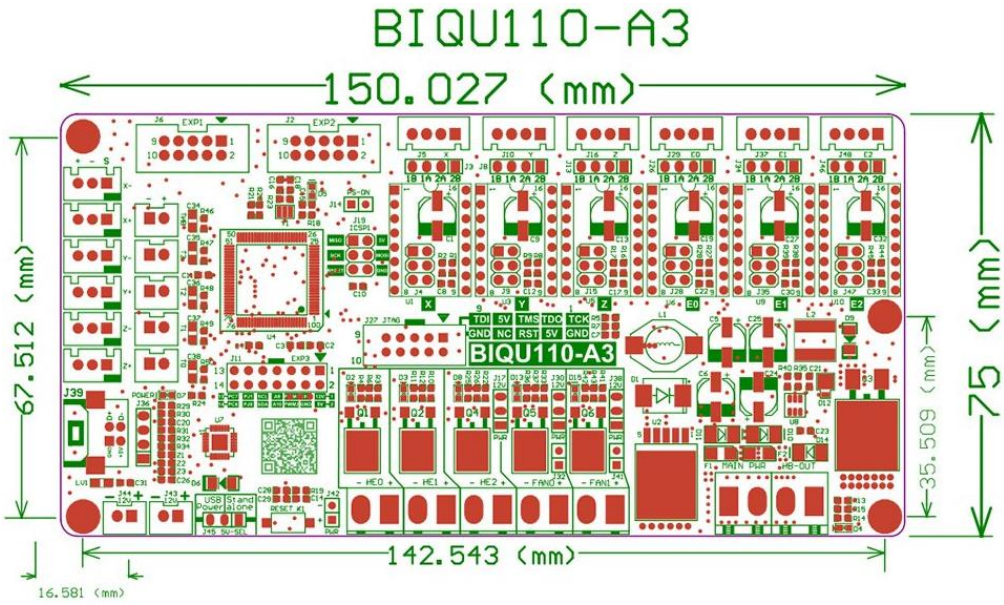
Features:

1. There are six stepper motor interfaces and five temperature sensor input interfaces;
2. With LCD expansion interface, you can connect LCD screen and SD expansion interface to achieve downtime printing;
3. ATMEGA2560 is the main control chip, and cooperate with the high-performance USB to UART chip CP2102. It can be compatible with all RAMPS related firmware;
4. The power port uses anti-reverse connection and short-circuit protection;
5. PWM DC output (heating rod, pneumatic raft, etc.); 6-channel output (1 channel high current, 3 channel current, 2 channel small current), MOS tube with high performance and low conduction resistance value is driven. The road output LED is used as an indication;
6. Compared with the common 3D printing control board (such as RAMPS), one more motor drive reduces the part of the straight plug part, which improves the connectivity and stability.

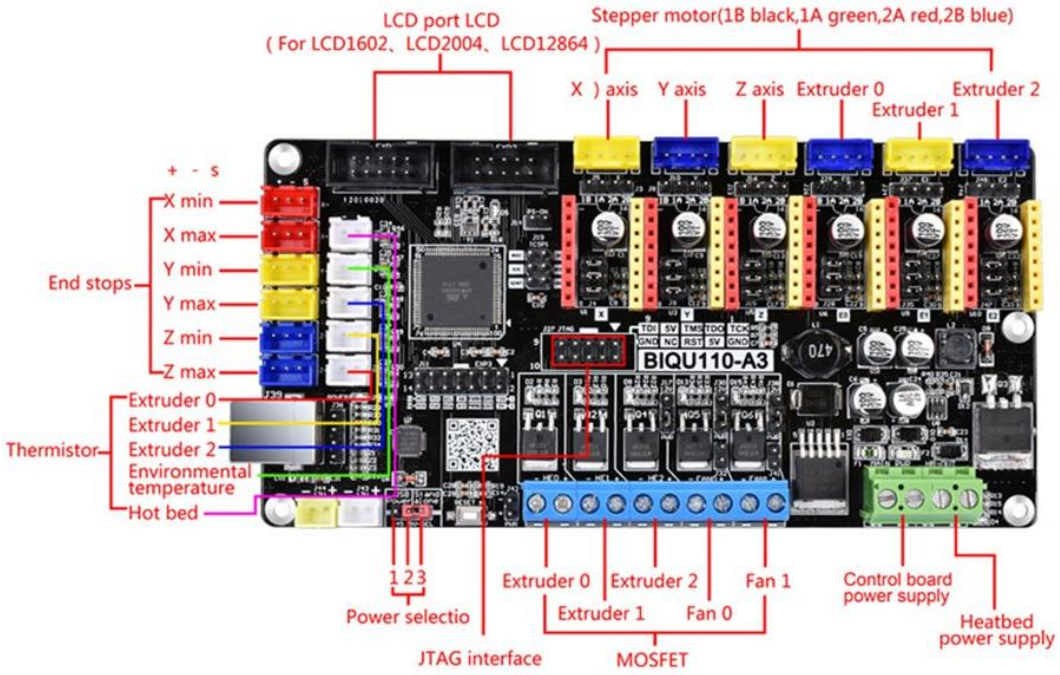
Specifications:

- Power input: 12-24V
- Supported number of motors: 6
- Motor drive support: A4988, DRV8825, LV8729, TMC2208, TMC2130, etc.
- Control screen support: LCD2004, LCD12864, etc.
- Compilation software: Arduino IDE
- Firmware: Marlin
- PC software: Printrun, Repetier-Host
- Product Size: 150mm*75mm
- Board weight: 99g

Installation Dimension Drawing:



Motherboard Circuit Diagram:



Connection Instructions:

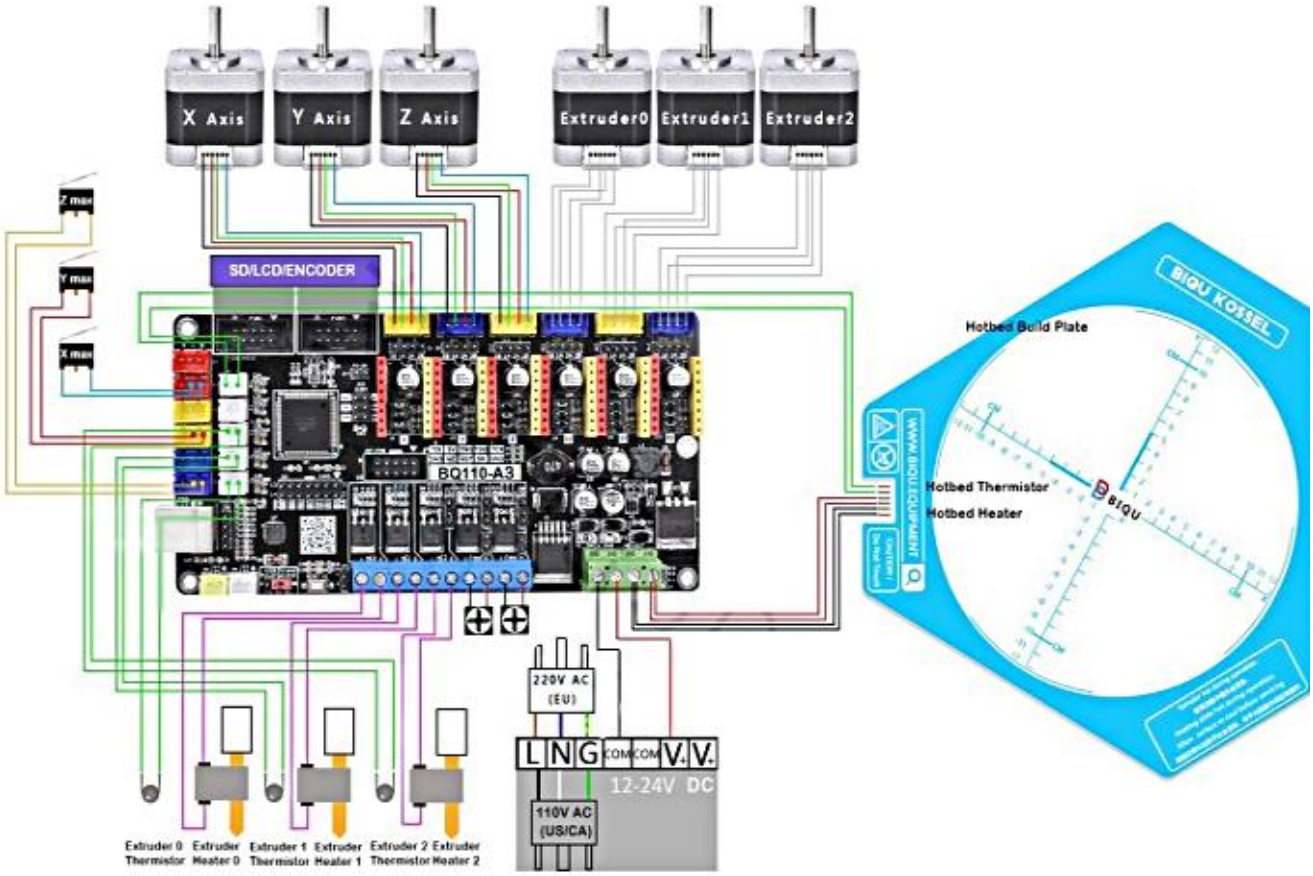
(1) Full support for JTAG operations;

(2) Five-way ADC interface is available for temperature measurement, three nozzles for temperature measurement, one hot bed for temperature measurement, and one environmental temperature measurement;

(3) Six-way PWM: heating of three control nozzles, one controlling the heating of the hot bed, and two controlling the fan to rotate;

(4) Six-way limit switch; Xmin/Xmax, Ymin/Ymax, Zmin/Zmax can be connected to mechanical switches, light control switches, proximity switches and other sensors.

Motherboard Connection Diagram:



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