GRBL 13.2

SKU:M035



Description

GRBL 13.2 is a three-axis stepper motor driver module in the M5Stack stacking module series. It uses an ATmega328P-AU controller with three sets of DRV8825PWPR stepper motor driver chip control ways, which can drive three bipolar steppers at the same time.

Using the I2C communication interface (default address:0x70) and integrated DIP switch for adjusting motor step subdivision (maximum support of 1/32 step subdivision) and I2C address adjustment (support dual address adjustment 0x70, 0x71), You can achieve six-axis control by stacking two **GRBL 13.2** modules.

The power input interface is DC/9-24V, the motor drive current can reach 1.5A, and three sets of limit switch signal interfaces are open, which can be used to connect an external limit switch to realize the motor braking function. Suitable for a variety of stepping motor motion control scenarios, such as printers, robotic arms, etc.

Product Features

ATmega328P-AU controller
Three-axis DRV8825PWPR stepper motor driver
Drive current up to 1.5A
Drive bipolar stepper motor
Maximum 1/32 mode STEP subdivision

Include

1x GRBL 13.2 Module

Applications

Printer scanner Office automation machine Factory automation robot technology

Specification

| Specifications | Parameters |
|---|---------------|
| Motor driver chip | DRV8825PWPR |
| Controller chip | ATmega328P-AU |
| Maximum drive current of single channel | 1.5A |
| Support maximum step subdivision | 1/32 |
| Interface | XT2.54-4P |

| Net weight | 22.5g |
|--------------|------------------|
| Gross weight | 42.3g |
| Product size | 54.2*54.2*13.2mm |
| Package size | 95*65*25mm |

EasyLoader

EasyLoader is a concise and fast program writer, which has a built-in case program related to the product. It can be burned to the main control by simple steps to perform a series of function verification. Please install the corresponding driver according to the device type. M5Core host

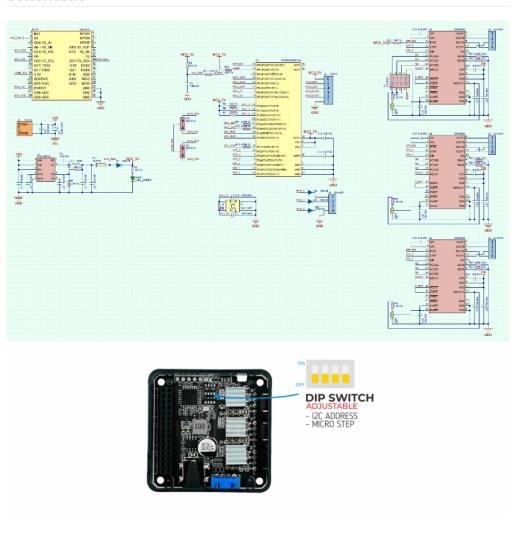
Related Link

DRV8825 Datasheet

PinMap

| M5Stack | GPIO21 | GPIO22 | 5V | GND |
|-----------|--------|--------|-----|-----|
| GRBL 13.2 | SDA | SCL | VCC | GND |

Schematic



Step subdivision adjustment

| MODE2 | MODEI | MODE0 | STEP MODE |
|-------|-------|-------|---|
| 0 | 0 | 0 | Full step (2-phase excitation) with 71% current |
| 0 | 0 | 1 | 1/2 step (1-2 phase excitation) |
| 0 | 1 | 0 | 1/4 step (W1-2 phase excitation) |
| 0 | 1 | 1 | 1/8 step |
| 1 | 0 | 0 | 1/16 step |
| 1 | 0 | 1 | 1/32 step |
| 1 | 1 | 0 | 1/32 step |
| 1 | 1 | 1 | 1/32 step |

I2C address adjustment

| dress |
|-------|
| 70 |
| 71 |
| |

Example

Arduino Example Code

PURCHASE