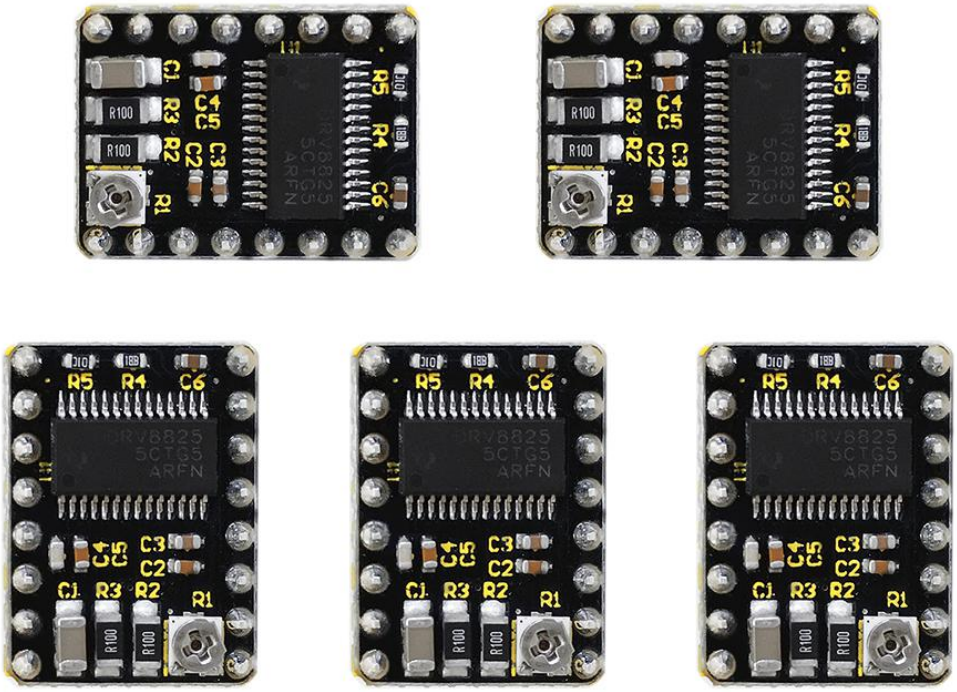
Keyestudio 3D Printer DRV8825 Kit (5PCS)



Introduction:

This stepper motor driver is powered by DRV8825. This driver has a same pin and interface as our A4988 stepper motor driver, so it can replace the A4988 driver. It is a high-powered stepper motor driver.

DRV8825 has adjustable current limits, over-current and over-heat protection, six micro resolution (down 1/32-step).

It uses 8.2-45V and can provide up to approximately 1.5 per phase without heat sink or forced air flow (rated up to 2.2 with adequate additional cooling per coil)

Specifications:

1. With only simple step and direction control interface;

2. Six different step modes: full, half, 1/4, 1/8, 1/16, and 1/32;

3.Adjustable potentiometer can adjust the maximum current output, resulting in a higher step rate;

4. Automatic current decay mode detection / selection;

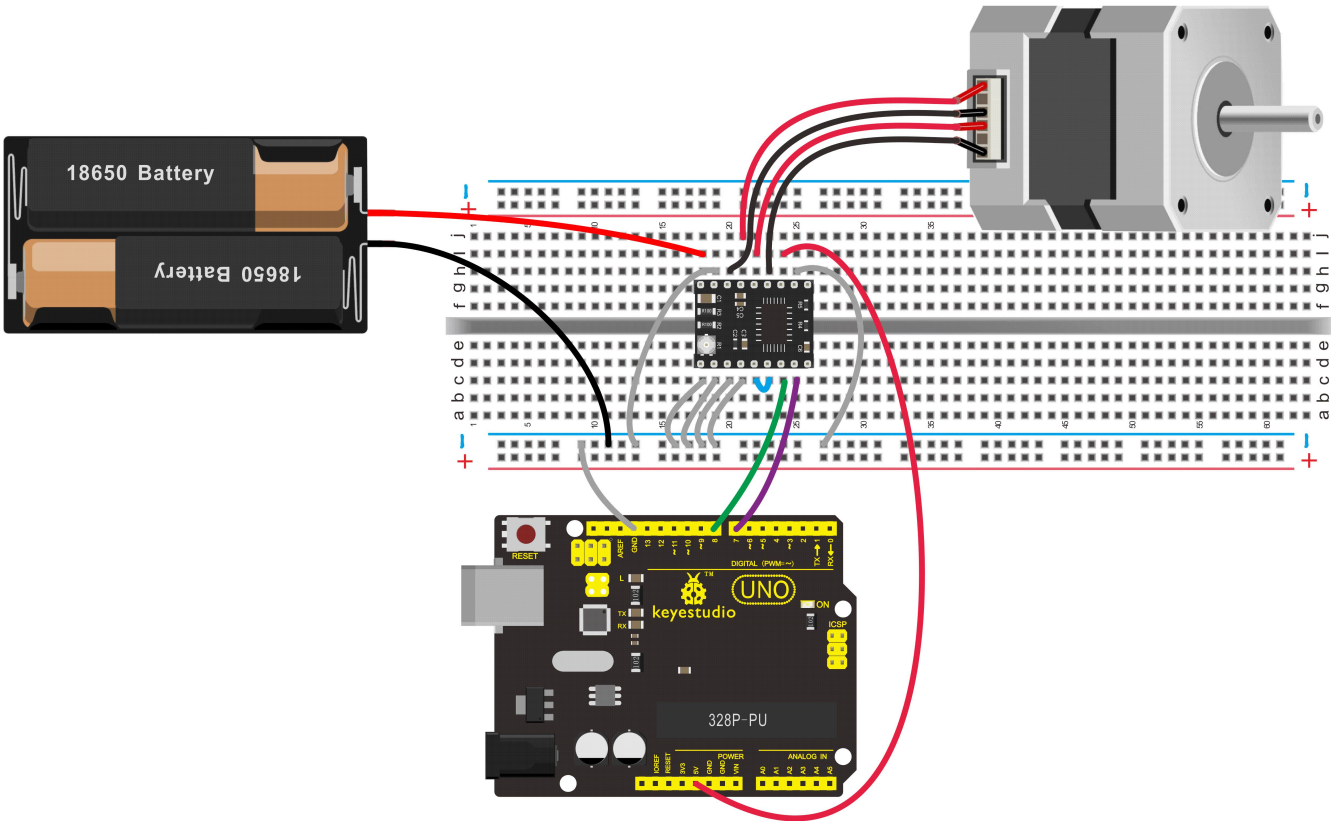
5. Overheat shutdown circuit, under voltage lockout, cross current protection;

6. Ground short circuit protection and load short circuit protection.

Settings for working mode:

MODE0	MODE1	MODE2	Microstep Resolution
Low	Low	Low	Full step
High	Low	Low	Half step
Low	High	Low	1/4 step
High	High	Low	1/8 step
Low	Low	High	1/16 step
High	Low	High	1/32 step
Low	High	High	1/32 step
High	High	High	1/32 step

Connection Diagram



Sample Code

```
**************************
int dirPin = 7;
int stepperPin = 8;
void setup() {
pinMode(dirPin, OUTPUT);
pinMode(stepperPin, OUTPUT);
}
void step(boolean dir,int steps){
digitalWrite(dirPin,dir);
delay(50);
for(int i=0;i<steps;i++){
digitalWrite(stepperPin, HIGH);
delayMicroseconds(800);
digitalWrite(stepperPin, LOW);
delayMicroseconds(800);
}
}
```

```
void loop(){
step(true,1600);
delay(500);
step(false,1600*5);
delay(500);
}
**************************
```

Test Result

The selection end MS1, MS2, MS3 of three modes are all connected to GND, that is, full-step mode, and the motor needs 200 stepping values or a stepping 1.8° to turn a round.

In the experiment, we first let the stepper motor reverse 8 circles and delay 0.5 seconds; then turn 40 circles and delay 0.5 seconds.

If it is an half-step mode, then the number of both positive and reverse circle should be halved.

Package Included

- Keyestudio 3D Printer DRV8825 *5PCS