

# Unit-BLDC Driver

SKU:U181



## Description

The **Unit-BLDC Driver** is a driving unit specifically designed for Brushless DC Motors (BLDC), utilizing an STM32 as the primary control chip. It enables precise control over the DRV11873PWR motor drive chip through I2C communication, facilitating PWM speed control adjustment, monitoring, and direction switching functionalities. This drive chip features a simplified control interface and integrated stall protection, ensuring efficient and low-noise operation of three-phase small brushless DC motors. The onboard STM32 upgrade interface facilitates firmware updates and functional expansions, making it suitable for applications in industrial automation, smart robotics, precision instruments, and other fields.

## Features

- STM32 Main Control
- I2C Communication (0x65)
- DRV11873 Drive control

- BLDC (brushless DC motor)
- PWM speed configuration, control, direction switching and other functions
- Blocking rotation protection
- Firmware upgradable

## | Includes

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- 1x Unit-BLDC Driver
- 1x HY2.0-4P Cable
- 1x VH3.96-4P

## | Applications

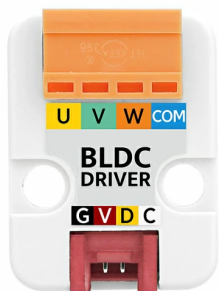
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- Automation in industry
- Intelligent robot
- Precise instrument

## | Specification

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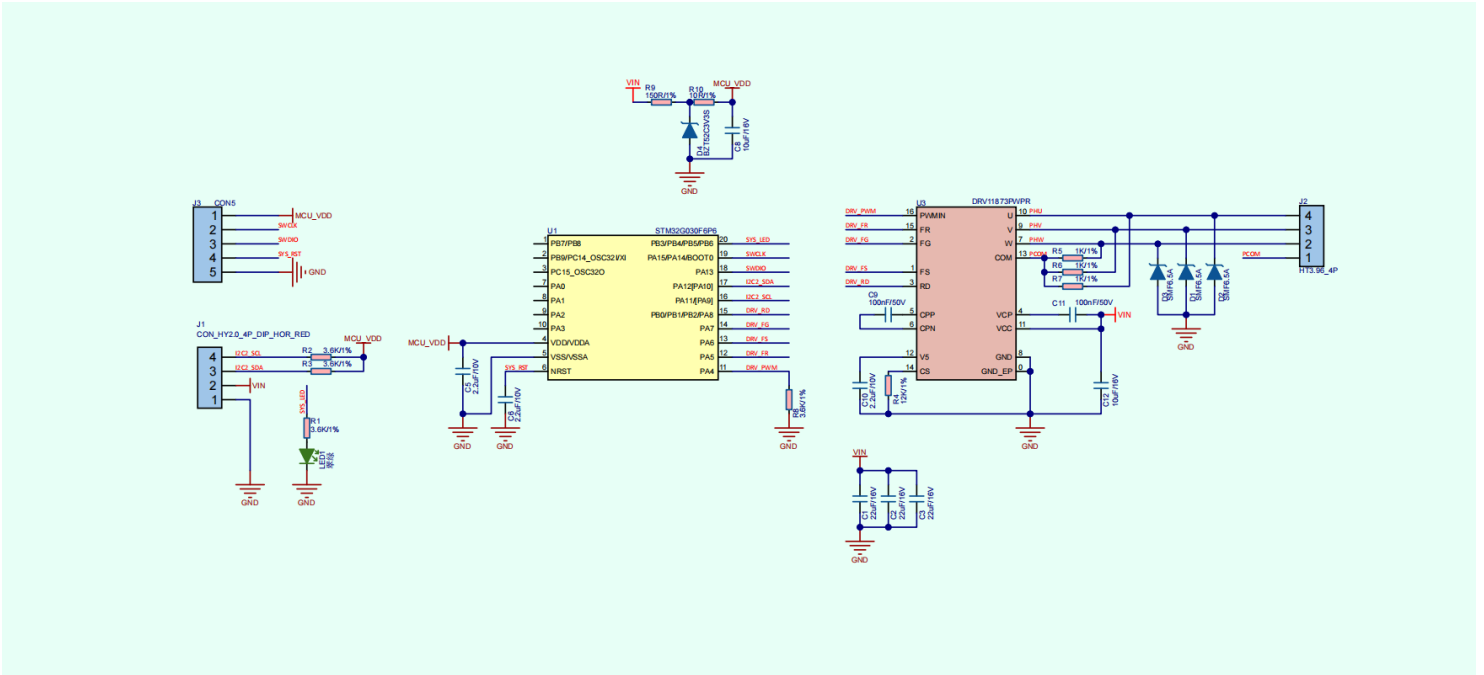
Resources	Parameters
Motor driver chip	DRV11873PWPR
Type of motor	Three-phase sensorless, brushless direct current (BLDC) motor
Motor drive voltage	5V(Powered by Grove port)
I2C communication address	0x65
Output load capacity	DC5V/508mA
Power dissipation	Standby current :DC5V/ 10.62mA Working current :DC5V/13.20mA
Operating temperature	0-40°C
Product Size	32*24*11.3mm
Package Size	136* 92* 13.7mm
Product Weight	4.3g
Package Weight	12.5g



# Related Link

- DRV11873

# Schematic



# PinMap

PORT A(Red)	SCL	SDA	VCC	GND
Core(Basic)	G22	G21	5V	GND
Core2	G33	G32	5V	GND
CoreS3	G1	G2	5V	GND

- Indicator LED (Green)

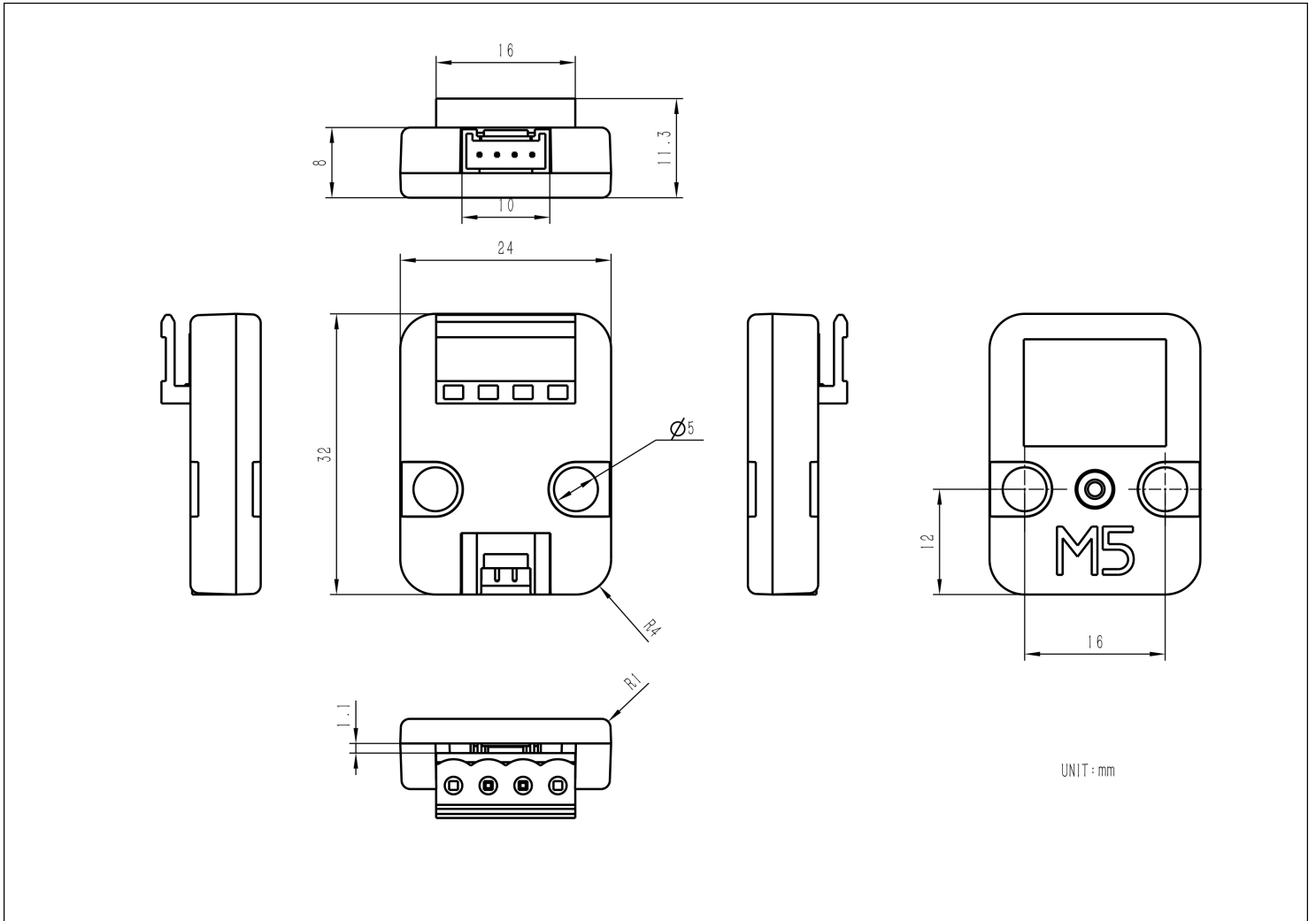
STM32

PB3/PB4/PB5/PB6

Indicator LED (Green)

SYS\_LED

## Module Size



## Examples

### Arduino

- [Unit-BLDC-Driver demo\(i2c\\_addr\\_modify\)](#)

- [Unit-BLDC-Driver demo\(PWM control\)](#)
- [Unit-BLDC-Driver demo\(Speed and direction control\)](#)

## | Video

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- Unit-BLDC-Driver product and function description

### [U181 BLDC Driver UNIT 视频.mp4](#)

- [UIFlow2.0 BLDC Driver Unit](#)



