Unit Vibrator

SKU:U059

Description

Unit Vibrator is a high-performance vibration feedback module based on an N20 motor and a metal eccentric wheel. It generates physical vibration through the high-speed rotation of the eccentric wheel, enabling precise haptic feedback functionality. This unit communicates via a Grove HY2.0-4P interface and supports GPIO digital control as well as PWM pulse-width modulation. The vibration intensity can be steplessly adjusted by changing the PWM duty cycle. The module integrates an N-Channel MOSFET low-side switch driving circuit, features a motor speed of 8800 RPM, and recommends a PWM frequency of 10KHz. It also adopts a LEGO-compatible hole design, allowing flexible integration into various structures. It is suitable for applications requiring tactile feedback, such as electronic product notifications, touch feedback systems, and user interaction feedback.

Features

- Motor Type: N20 DC Motor + Metal Eccentric Wheel
- Rotation Direction: Single Direction (Reverse Braking Not Supported)
- Motor Speed: 8800 RPM (No Load)
- Control Method: GPIO Digital Control / PWM Pulse-Width Modulation
- Response Speed: Fast Start / Stop (Dependent on Mechanical Inertia)
- Communication Interface: Grove HY2.0-4P
- 2 x LEGO-Compatible Holes
- Development Platform
  - UiFlow1

- UiFlow2
- Arduino IDE

Includes

- 1 x Unit Vibrator
- 1 x HY2.0-4P Grove Cable (20cm)

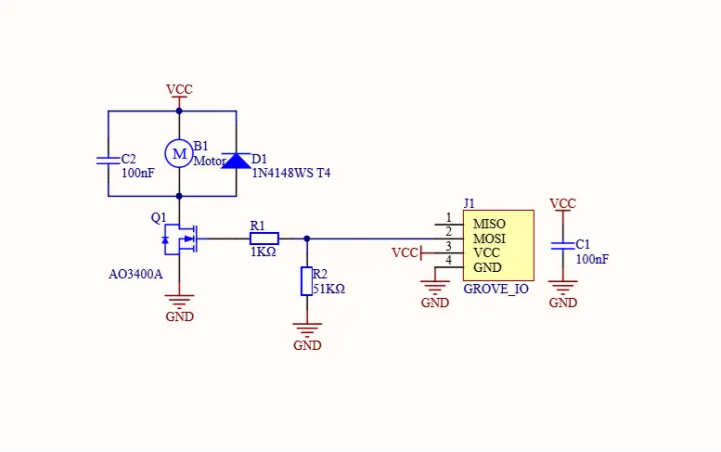
Applications

- Haptic feedback
- Vibration notification alerts

Specifications

Specification	Parameter
Power	PWM Freq: 10KHz, Duty: 50%, 5V@424.35mA
Product Size	32.0 x 24.0 x 8.0mm
Product Weight	10.6g
Package Size	138.0 x 93.0 x 14.0mm
Gross Weight	15.8g

Schematics

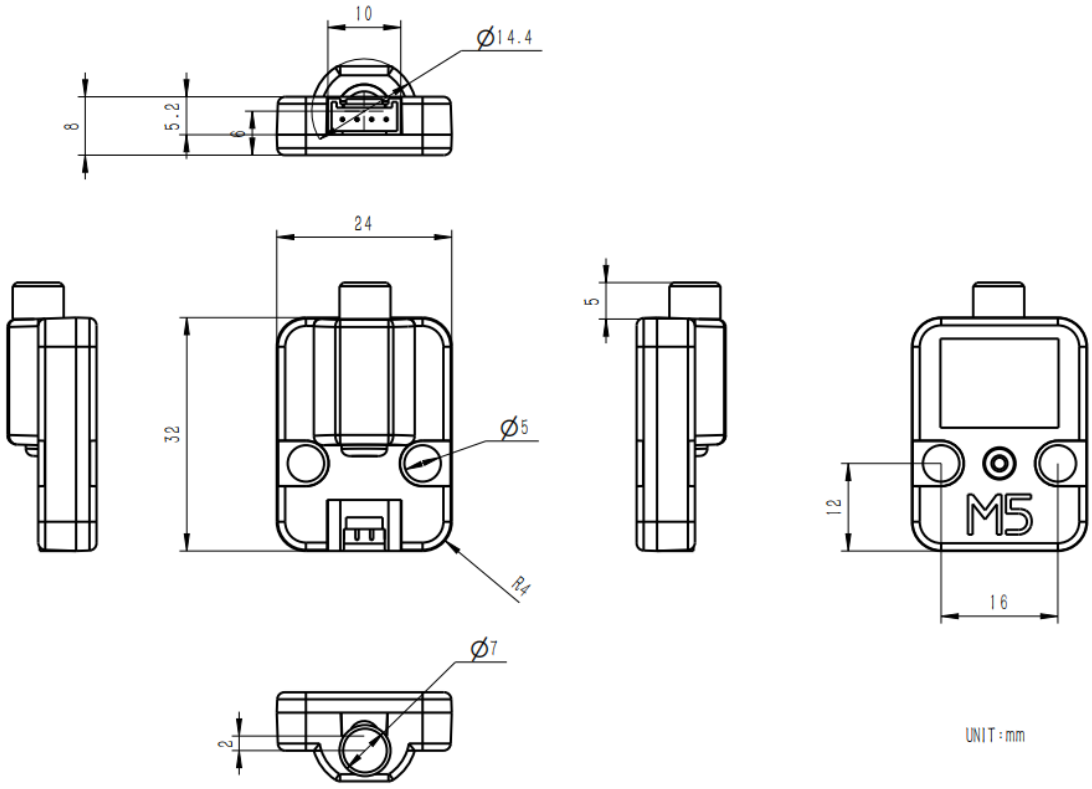


PinMap

Unit Vibrator

HY2.0-4P	Black	Red	Yellow	White
PORT.B	GND	5V	DIN	NC

Model Size



Structure

- Unit Vibrator Structure Files

Softwares

Arduino

- Unit Vibrator Test Program

UiFlow1

- Unit Vibrator UiFlow1 Docs

UiFlow2

- Unit Vibrator UiFlow2 Docs

EasyLoader

Easyloader	Download	Note
Unit Vibrator Example with M5Core	download	/

Video

Vibrator.mp4