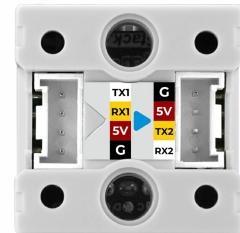


# Chain Angle

SKU:U208





## Description

Chain Angle is a potentiometer knob input node in the M5Stack Chain series. As the potentiometer knob rotates, the voltage value at the sampling terminal varies within a fixed range. After ADC conversion by the built-in MCU, a signal value with up to 12-bit resolution is output. It also integrates a programmable RGB LED for status indication and interactive display. It is suitable for applications such as human-machine interfaces, smart home systems, and motor speed control.

Chain Angle integrates an STM32G031G8U6 core MCU and uses a UART serial cascade communication protocol. Through two HY2.0-4P expansion interfaces, more Chain series devices can be connected to build richer interactive applications.

## Features

- M5Stack Chain series
- Potentiometer knob input
- STM32G031G8U6 core MCU
- 1x RGB LED
- Uses UART serial cascade communication protocol
- 2x HY2.0-4P expansion interfaces for extending Chain series devices

## Includes

- 1 x Chain Angle
- 1 x Chain Bridge

## Applications

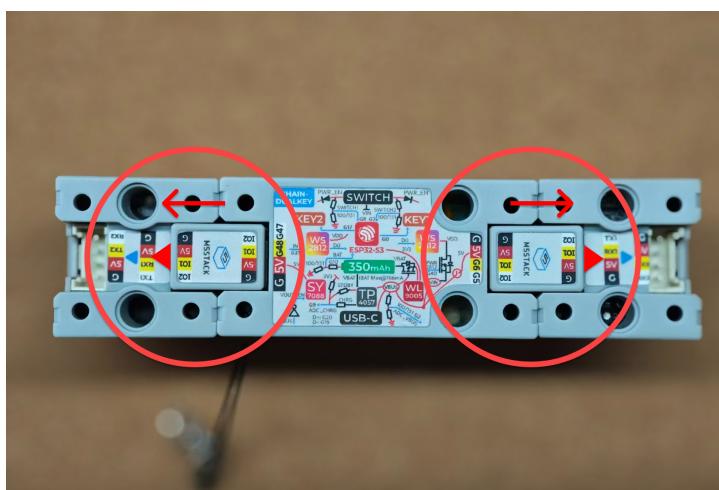
- Smart home control
- Human-machine interface
- Volume control
- Motor speed control

## Specifications

Specification	Parameter
MCU	STM32G031G8U6
Input Power	DC 5V
Communication	UART 115200bps@8N1
Interface	2x HY2.0-4P
RGB LED	1x WS2812C
RGB Power On Consumption	21.13mA
Rotation Angle	280° ±10°
Operating Temperature	0 ~ 40°C
Product Size	23.9 x 23.9 x 28.2mm
Product Weight	8.4g
Package Size	138.0 x 93.0 x 26.0mm
Gross Weight	11.7g

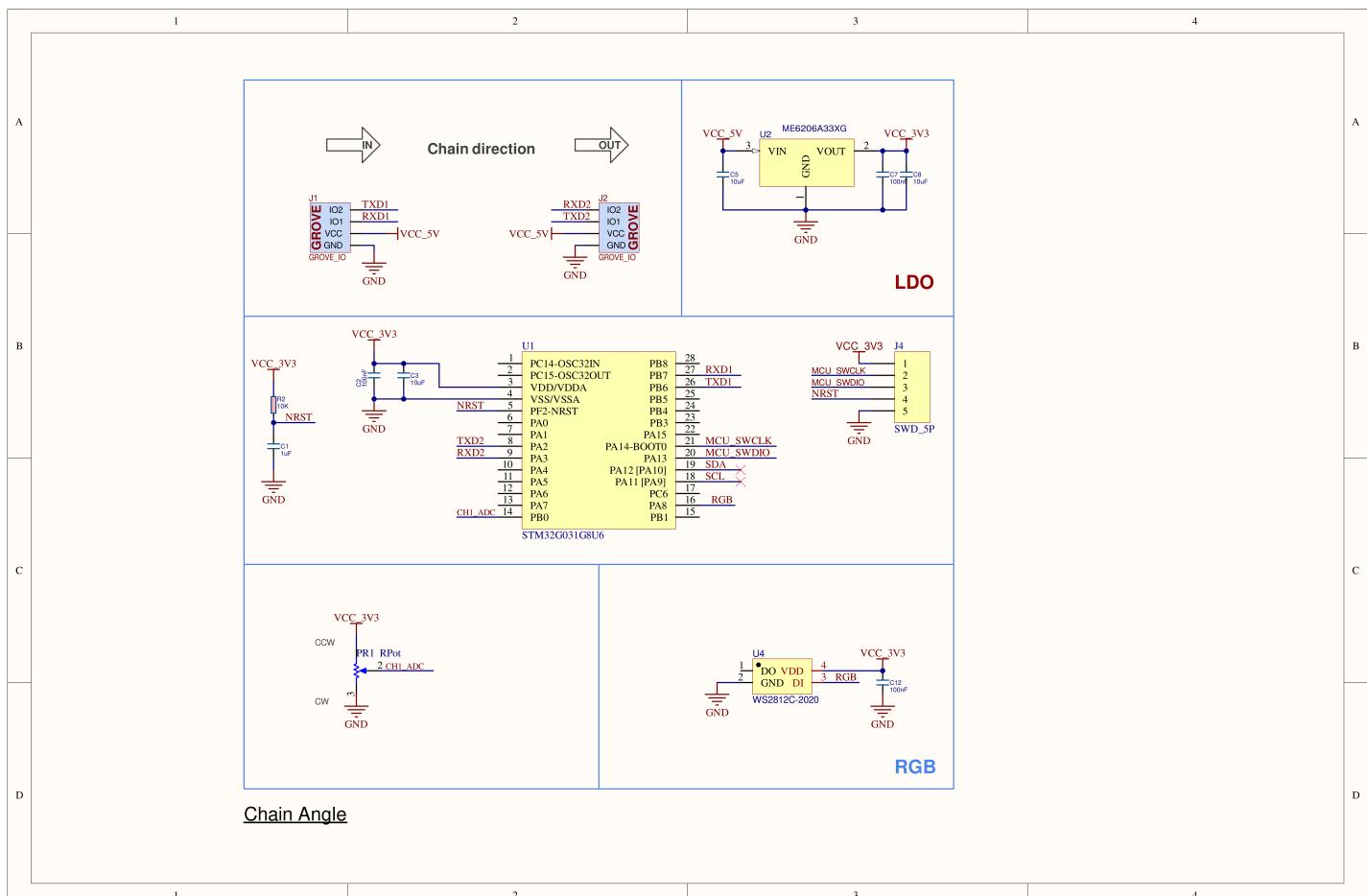
## Learn

Use the Chain Bridge connector to connect the main controller Chain DualKey and various Chain series input devices. When connecting, pay attention to the direction. The triangular arrow should point from the main controller Chain DualKey outward, as shown in the figure below:



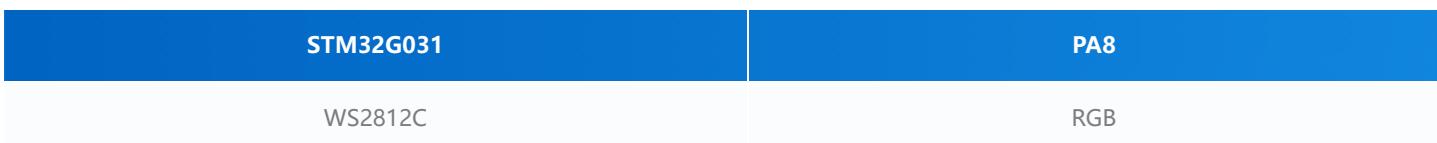
## Schematics

- [Chain Angle Schematics PDF](#)

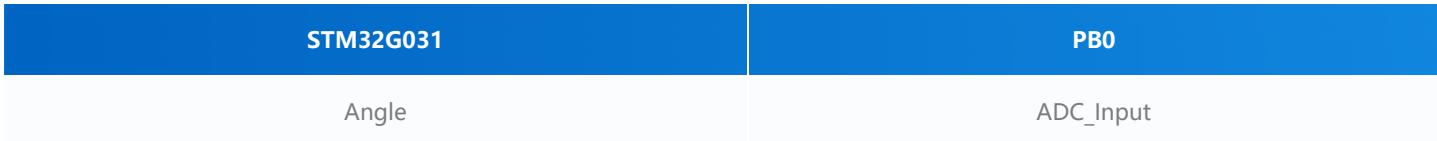


# PinMap

## RGB LED



## Angle

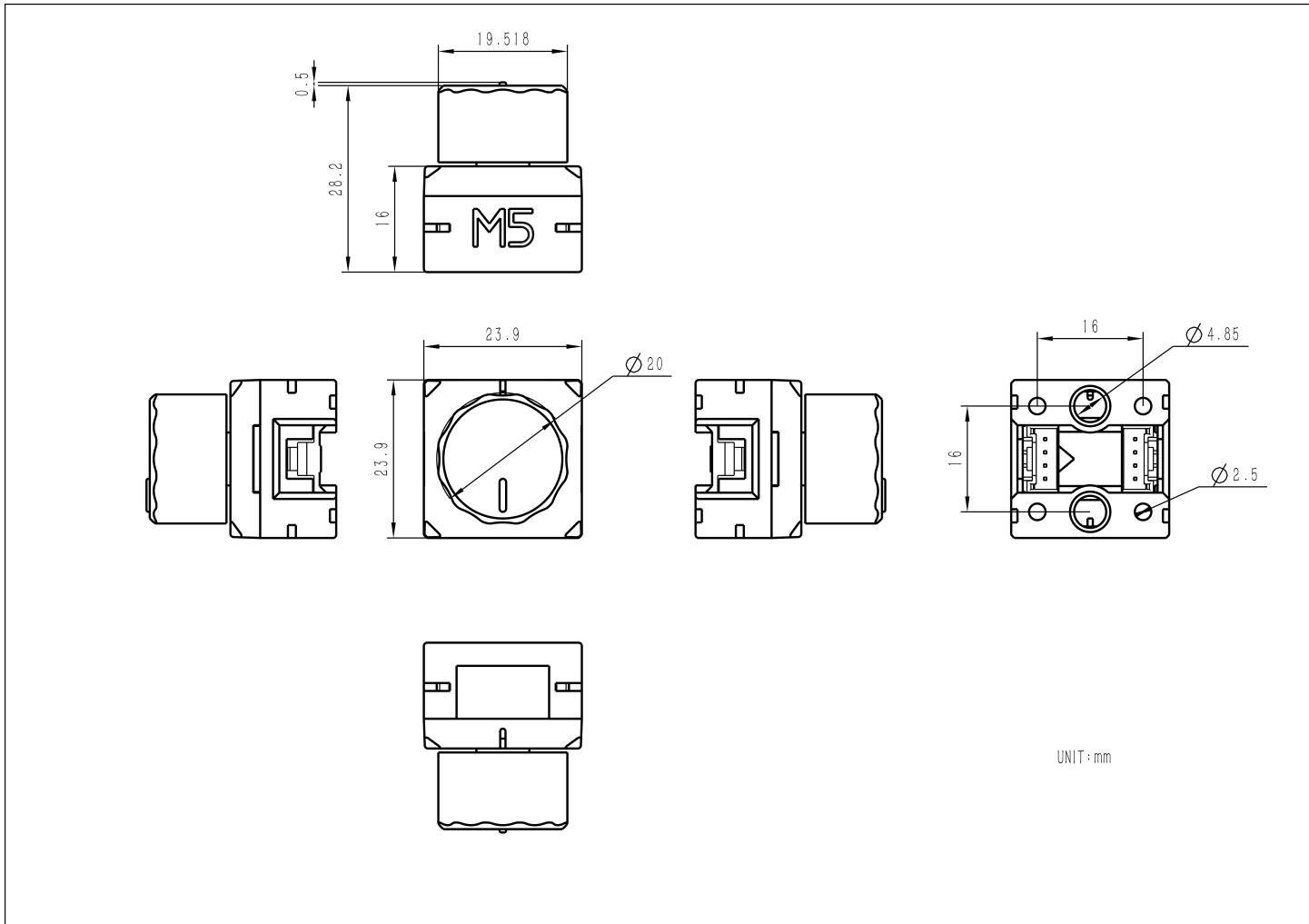


## UART

STM32G031	PB6	PB7	PA2	PA3
UART1	TXD1	RXD1		
UART2			TXD2	RXD2

## Model Size

- [Chain Angle Model Size PDF](#)



## Softwares

### Arduino

- [Chain Angle Arduino Getting Started Guide](#)
- [Chain Series Product Driver Library](#)

### UiFlow2

- [Chain Angle UiFlow2 Docs](#)

### Internal Firmware

- Chain Angle Internal Firmware

## Protocol

- Chain Angle Communication Protocol

## Video

---

- Chain Angle product introduction and feature demonstration

[U208-Chain-Angle-video-EN.mp4](#)