

Hat Mini EncoderC

SKU:U157



Description

Hat Mini EncoderC is a rotary encoder HAT designed for the StickC/StickC-Plus series. It integrates a rotary AB encoder with a built-in push button and comes with standard LEGO mounting holes for structural expansion. Inside, it houses a 200 mAh Li-Po battery and one SK6812 RGB LED. This product can be used for remote RGB lighting adjustment, remote control of robot joints, and more.

Features

- 30-count pulse rotary knob (30 pulses per full rotation)
- SK6812 programmable RGB LED
- Push-button input
- HY2.0-4P connector
- Four LEGO mounting holes

Includes

- 1 × Hat Mini EncoderC
- 1 × Lanyard
- 1 × Hex Key L-Shape 1.5 mm (For M2 Screw)
- 2 × M2 x 8 mm Screws (pan head, self-tapping)

Applications

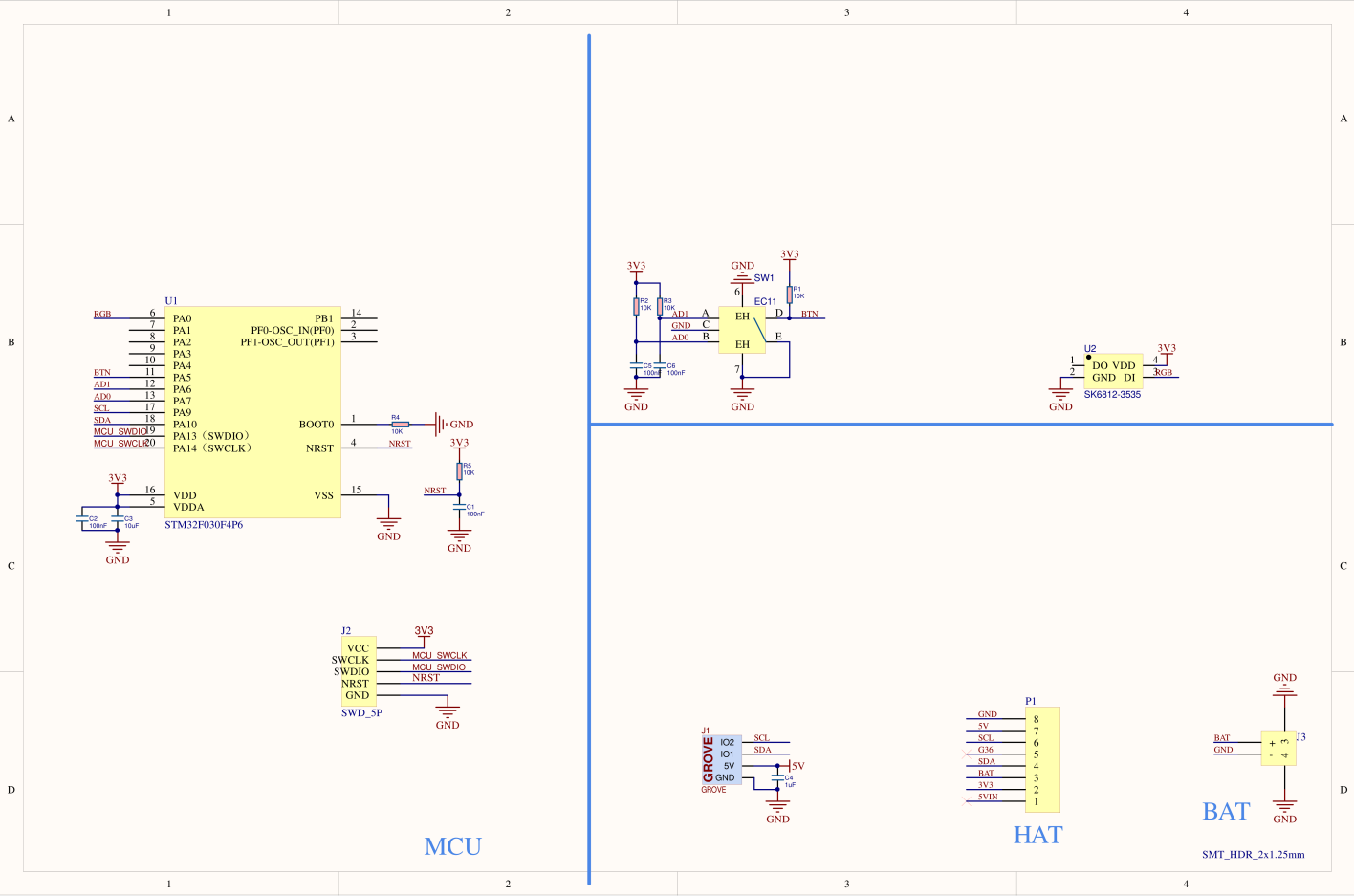
- Remote lighting adjustment
- Remote control of robot joints

Specifications

Specification	Parameter
MCU	STM32F030F4P6
RGB	SK6812-3535
Communication	I2C @0x42
Power Supply	3.3V
Battery Capacity	200mAh
Product Size	81.1 x 29.0 x 24.0mm
Product Weight	19.3g
Package Size	101.0 x 27.0 x 22.0mm
Gross Weight	24.5g

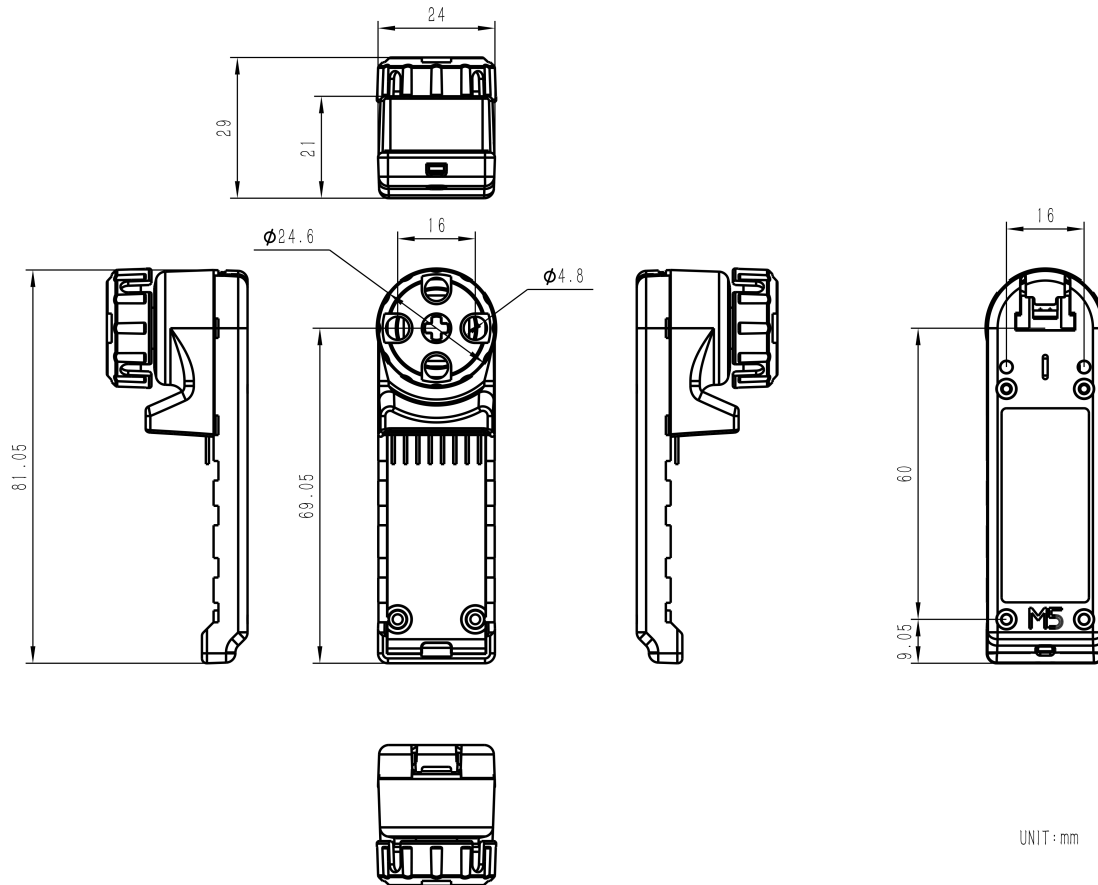
Schematics

- [Hat Mini EncoderC Schematics PDF](#)



Model Size

[Hat Mini EncoderC Model Size PDF](#)



Datasheets

- [STM32F030F4P6](#)

Softwares

Arduino

- [Hat Mini EncoderC Arduino Library](#)
- [Hat Mini EncoderC Arduino Tutorial](#)

UiFlow1

- [Hat Mini EncoderC UiFlow1 Docs](#)

UiFlow2

- [Hat Mini EncoderC UiFlow2 Docs](#)

Internal Firmware

- [Hat Mini EncoderC Internal Firmware](#)

Protocol

M5Stack Hat Encoder I2C Protocol																		V1 (FW Version)		
																		11/1/2022		
REG MAP (Addr:0x42)		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	note		
Counter Value (accumulate)	0x00 R/W	Cnt- byte0	Cnt- byte1	Cnt- byte2	Cnt- byte3													Cnt: -2147483648-2147483647 (will be reset after set reg 0x40)		
Increment Value	0x10 R	Inc- byte0	Inc- byte1	Inc- byte2	Inc- byte3													Cnt: -2147483648-2147483647 (will be reset after get)		
Button Value	0x20 R	BNT															BNT: 0~1			
RGB	0x30 R/W	LED-R	LED-G	LED-B														R/G/B: 0~255		
Counter Reset	0x40 W	Cnt- RST															RST: write 1 to reset counter			
Firmware Version	0xF0 R															Version		Version: firmware version number		
I2C Address	0xF0 R/W																Address s		Address: 1~127	