

Unit 8Angle

SKU:U154



Description

Unit 8Angle is an input unit that integrates 8 adjustable potentiometers, using an STM32F030 microcontroller for data collection and communication processing, and communicates with the host via an I2C interface. Each adjustable potentiometer corresponds to an RGB LED light, and there is also a physical toggle switch with a corresponding RGB LED light. It includes a 5V->3V3 DC-DC circuit. This unit can be used for multi-channel absolute control value input, with the corresponding RGB lights displaying different states. The toggle switch can be used for multi-channel switch input, suitable for applications in multi-degree-of-freedom robots or music equalization.

Features

- 8-channel adjustable potentiometer
- 8 corresponding adjustable RGB lights
- I2C communication
- Toggle switch

Includes

- 1 x Unit 8Angle
- 1 x HY2.0-4P Grove connection cable (20cm)

Applications

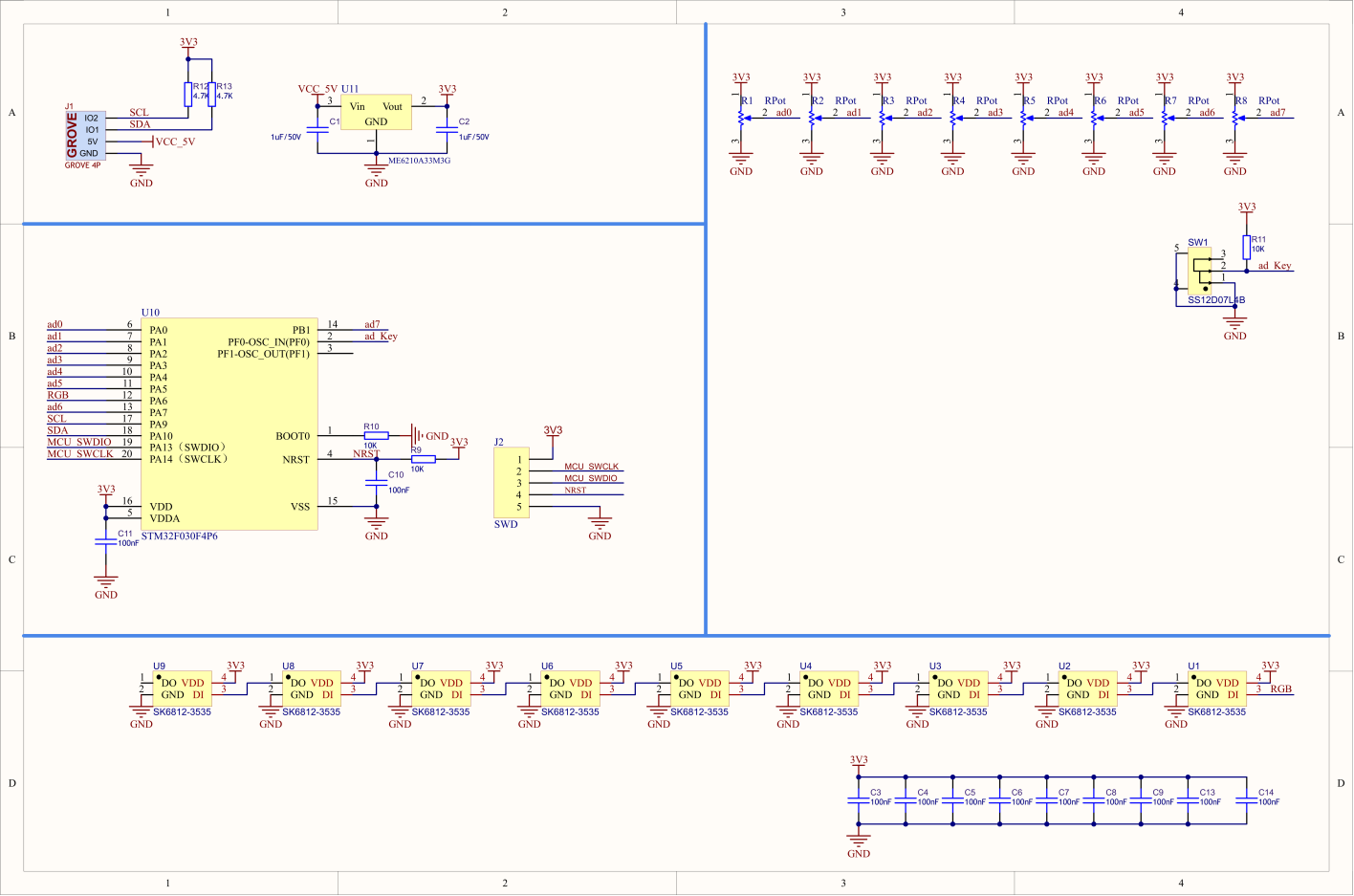
- Multi-degree-of-freedom robot joint control
- Music equalization control

Specifications

Specification	Parameter
MCU	STM32F030F4P6
LDO	ME6210A33M3G
RGB	SK6812-3535
Input Voltage	5V
Interface	I2C @0x43
Product Size	128.0 x 24.0 x 23.0mm
Product Weight	34.5g
Package Size	131.0 x 27.0 x 27.0mm
Gross Weight	43.9g

Schematics

- [Unit 8Angle Schematics PDF](#)

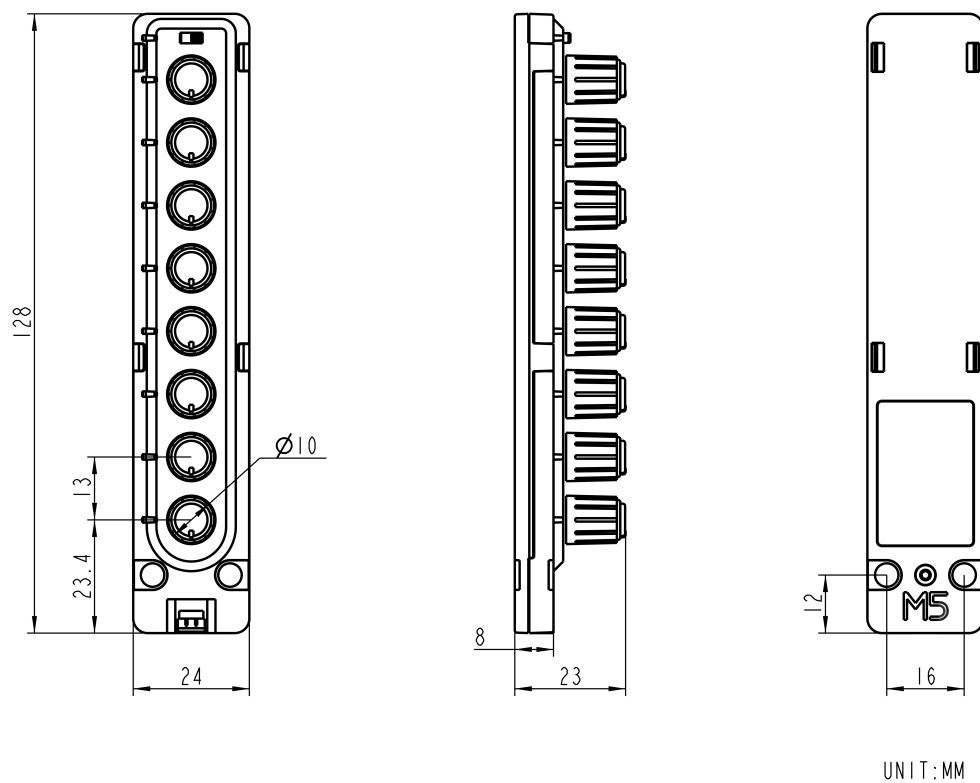


PinMap

Unit 8Angle

HY2.0-4P	Black	Red	Yellow	White
PORT.A	GND	5V	SDA	SCL

Model Size



Structure

- [Unit 8Angle Structure Files](#)

Datasheets

- [STM32F030F4P6](#)
- [LDO:ME6210A33M3G](#)

Softwares

Arduino

- [Unit 8Angle Arduino Library](#)
- [Unit 8Angle Arduino Tutorial](#)

UiFlow1

- [Unit 8Angle UiFlow1 Docs](#)

UiFlow2

- [Unit 8Angle UiFlow2 Docs](#)

Internal Firmware

- Unit 8Angle Internal Firmware

Protocol

Unit 8Angle																			
REG			0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	note
	ANALOG INPUT-12 Bits	0x00 R	VR0-L	VR0-H	VR1-L	VR1- H	VR2- L	VR2-H	VR3- L	VR3-H	VR4- L	VR4-H	VR5- L	VR5-H	VR6- L	VR6-H	VR7- L	VR7-H	value:0~4095
	ANALOG INPUT-8 Bits	0x10 R	VR0	VR1	VR2	VR3	VR4	VR5	VR6	VR7									value:0~255
	SWITCH INPUT	0x20 R	SW																value:0~1
	RGB 24Bits	0x30 W/R	LED0- R	LED 0-G	LED0- B	BR	LED1- -R	LED1- G	LED 1-B	BR	LED2- -R	LED2- G	LED2- -B	BR	LED 3-R	LED3- G	LED3- -B	BR	R/G/B:0~255
		0x40 W/R	LED4- R	LED4- G	LED4- B	BR	LED5- -R	LED5- G	LED 5-B	BR	LED6- -R	LED6- G	LED6- -B	BR	LED7- -R	LED7- G	LED7- -B	BR	BR:0~100
		0x50 W/R	LED8- R	LED8- G	LED8- B	BR													
	Firmware version	0xF0 R															Version		Version: firmware version
	I2C ADDRESS SETTING	0xF0 W/R																Addr	value: 0~127 default:0x43

Video