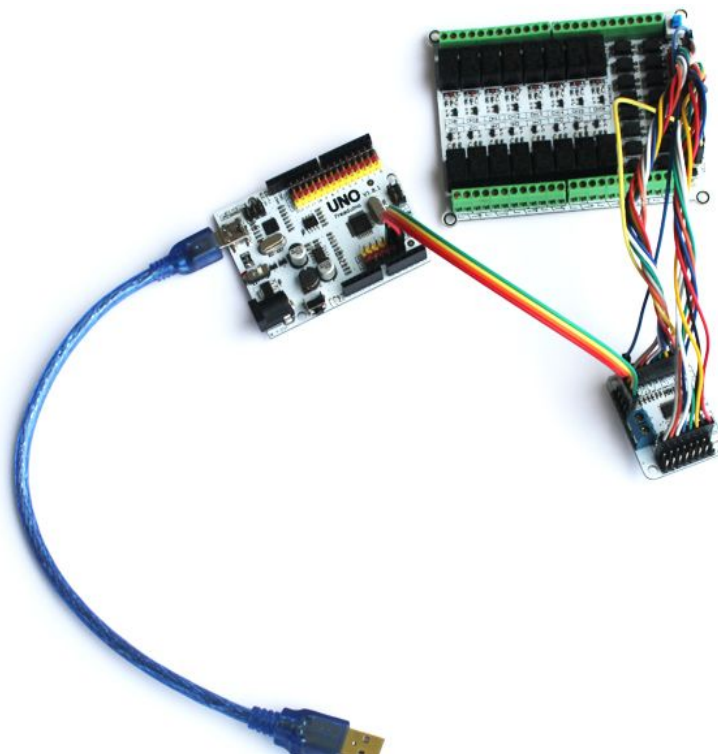


1. General description

When use Arduino to make robots or perform interactive media, have you found digital IO ports are not efficient? Arduino UNO and Leonardo often face this problem. How can we make use of existing resources to expand sufficient Arduino ports? Actually, we are able to solve this problem through the Arduino I2C.

IIC GPIO Module can achieve communication through Arduino two IIC data lines (SDA / SCL), thus convert the readable and writable 16 channel digital I / O port. In addition, 8 modules can be simultaneously in parallel, and each module can be set to different IIC address, through which you could parallel multiple modules for data acquisition and control according to the demand of project digital ports. A total of 128 digital ports are spared, double of MEGA2560. If you can't use I2C, SPI or other protocols, it is necessary to equip with an expanded version of IO.



2. Features

- 16 Digital IO port comes with internal pull-up
- Can be set to eight addresses (address range of 0x20 ~ 0x27)
- 8 modules simultaneously in parallel (IIC bus need to pull together)
- Input Voltage: 5V
- IO Operating Voltage: 5V
- Dimensions: 42X34MM

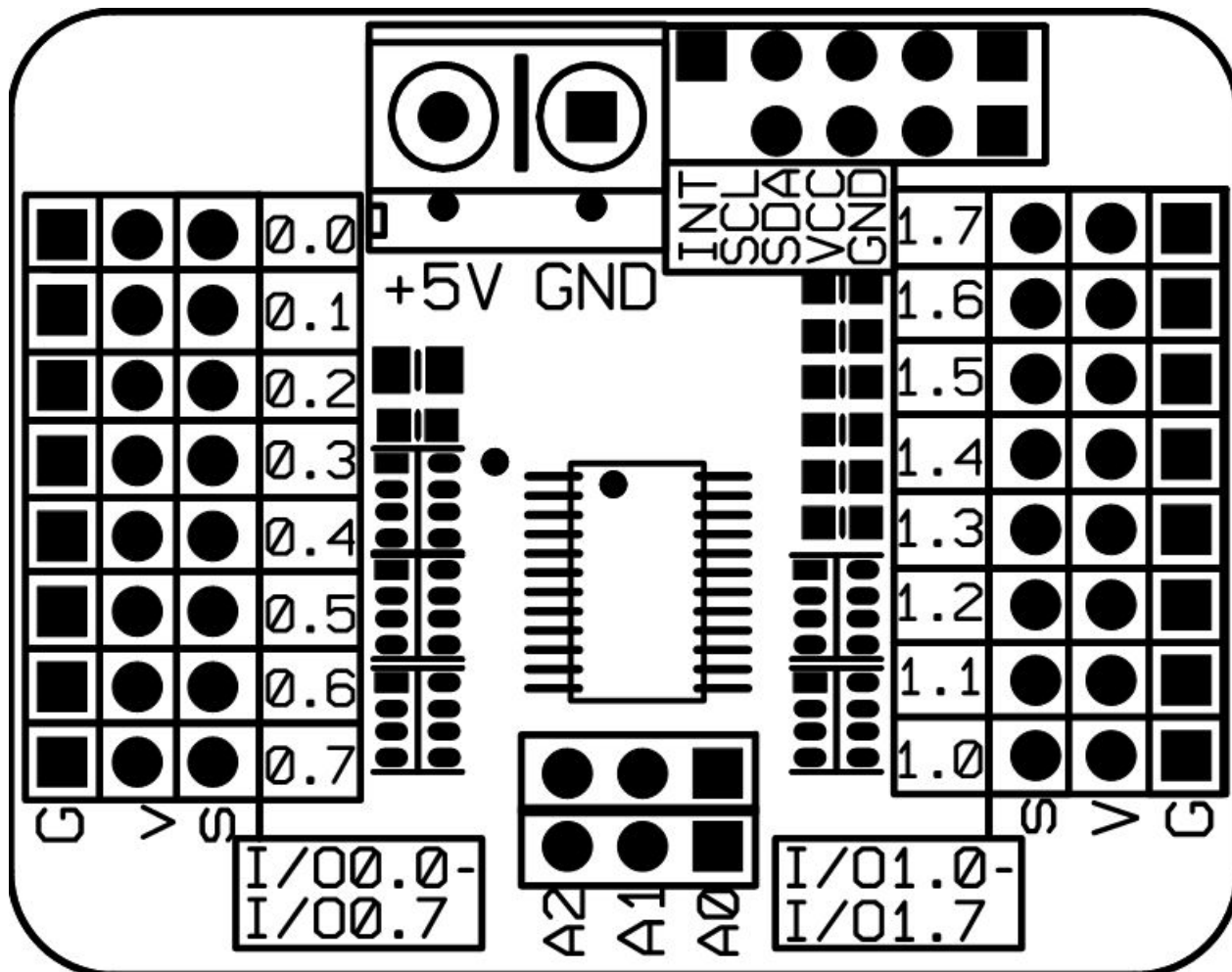
3. Applications

- Data acquisition and control
- Drive digital equipments (LED、Relays、Sensors、Keypad and so on)

4. Electronic characteristics

PARAMETER	MIN	TYP	MAX	UNIT
Power supply voltage	-0.5		6	V
I/O input/output voltage	-0.5		6	V
Power supply current		160		mA
I/O output current	-50		+50	mA
I/O input current	-20		+20	mA

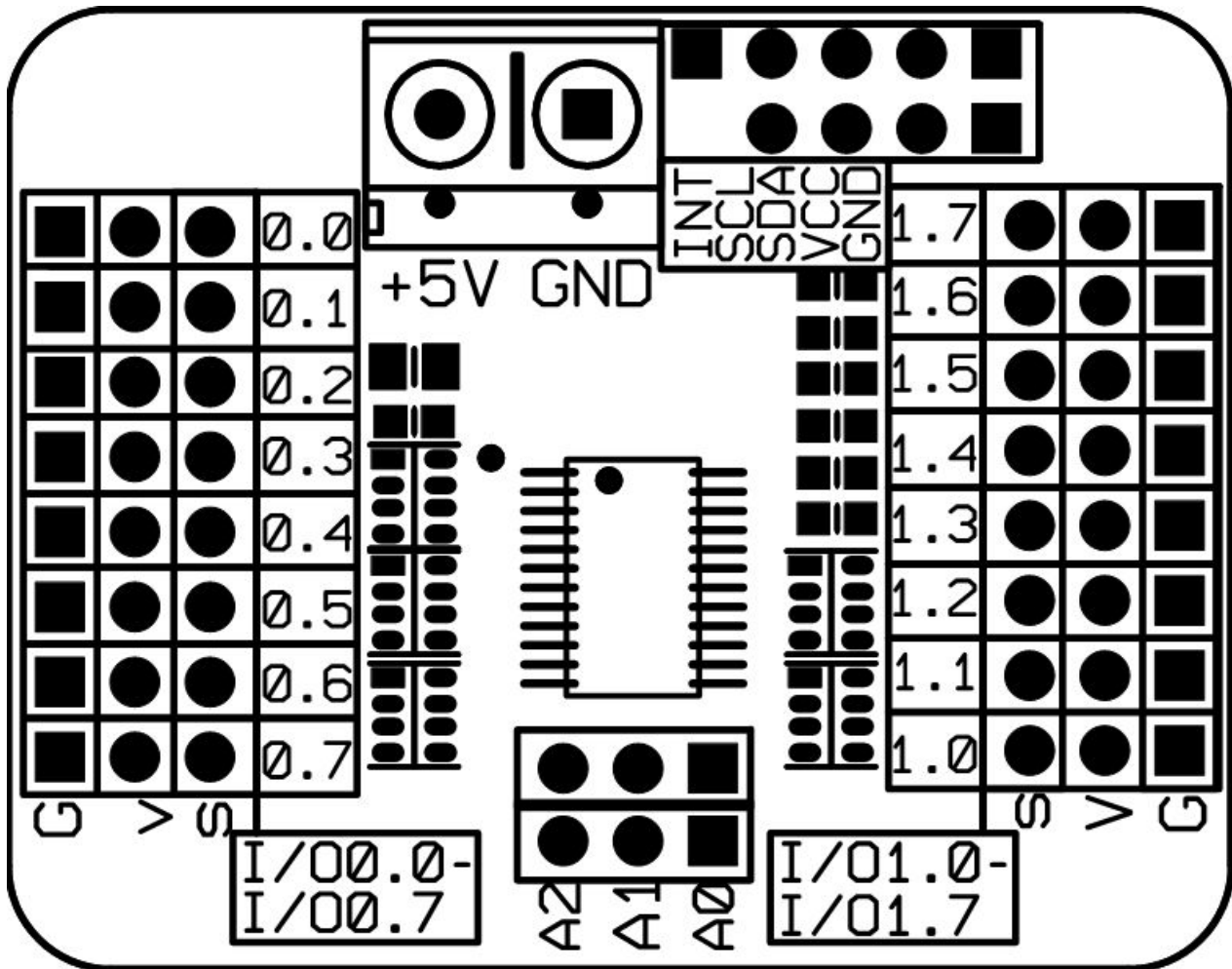
5. Pining information



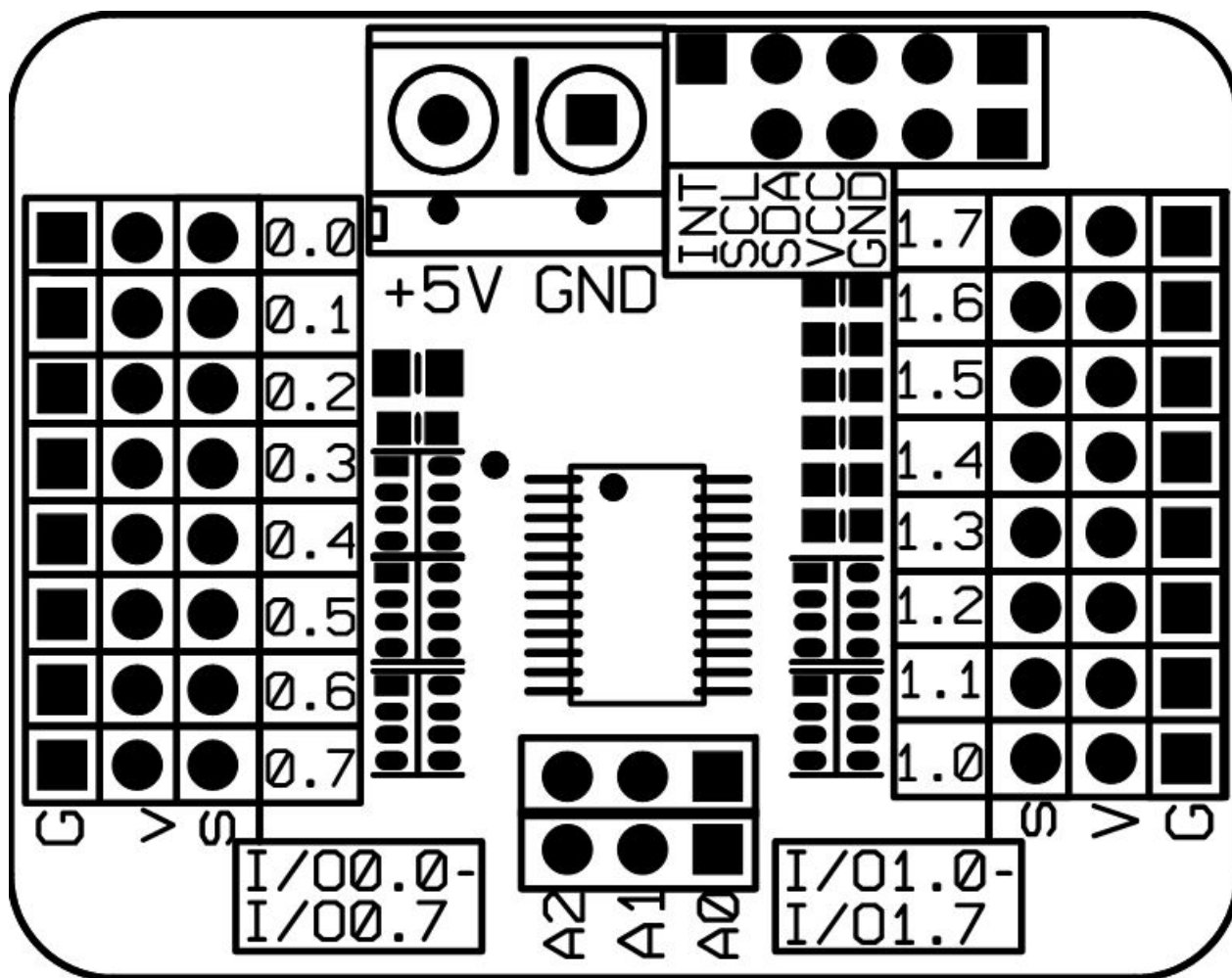
TYPE	SYMBOL	DESCRIPTION
	0.0	Digital IO port0. 0
	0.1	Digital IO port0. 1
	0.2	Digital IO port0. 2
	0.3	Digital IO port0. 3
	0.4	Digital IO port0. 4
	0.5	Digital IO port0. 5
	0.6	Digital IO port0. 6
	0.7	Digital IO port0. 7
	1.0	Digital IO port1. 0
I/O pin	1.1	Digital IO port1. 1
	1.2	Digital IO port1. 2
	1.3	Digital IO port1. 3
	1.4	Digital IO port1. 4
	1.5	Digital IO port1. 5
	1.6	Digital IO port1. 6
	1.7	Digital IO port1. 7

TYPE	SYMBOL	DESCRIPTION
	A0	Module address setting interfaceA0
	A1	Module address setting interfaceA1
	A2	Module address setting interfaceA2
	GND	Power Ground
	5V	Large current 5V voltage input
	VCC	5V power supply input
IIC interface	SDA	IIC communication interface SDA
	SCL	IIC communication interface SCL
	INT	Interrupting output port

6. Interface description



7. Dimension outline



8. Revision history

REVISION	DESCRIPTION	RELEASE DATE
V1.0	Initial version	9/4/2013

9. Contact information

For more information, please visit: <http://www.elec Freaks.com>

For sales office addresses, please send an email to: service@elec Freaks.com

Note:

- 1、 When in connection, do it as the way we provided (Do not make mistakes between VCC and GND)
- 2、 When multiple modules in parallel, connect the Jumper wire and Short Cap according to your set module address.