

A: pin description
B: pin number (used with #define statements)
C: pin location

D1/TX	1	1	30	n/a	V _{in} (5V-21V)
D0/RX	0	2	29	n/a	GND
RESET	n/a	3	28	n/a	RESET
GND	n/a	4	27	n/a	5V
D2	2	5	26	21	D21/A7
~D3	3	6	25	20	D20/A6
D4	4	7	24	19	D19/SCL/A5
~D5	5	8	23	18	D18/SDA/A4
~D6	6	9	22	17	D17/A3
D7	7	10	21	16	D16/A2
D8	8	11	20	15	D15/A1
~D9	9	12	19	14	D14/A0
~D10	10	13	18	n/a	AREF
D11/MOSI	11	14	17	n/a	3V3
~D12/MSIO	12	15	16	13	D13/SCK

power with USB cable

Arduino BLE 33

1000uF electrolytic capacitor

V+ GND

Vcc

PWM (orange)

PWR (red)

GND (brown)

0

15

Stepper motor (NEMA 11)

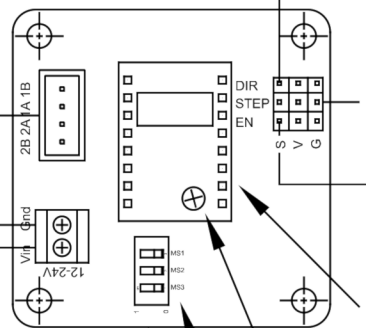
fuse (5A)

12V - 24V

4 x 18650 cells 14.8V

GND

100uF electrolytic capacitor



S signal
V voltage
G ground

Stepper motor driver DRV8825

Vref screw (adjust according to suppliers instructions)

all 0 (for single step)

Expansion board

PCA9685_circuit_V0.dwg
Sheet 1 of 2
14 March 2025
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