

Simple **FOC** project

TB\_M1

D1 +

Input  
12-24V

VCC

R1

INA1

INA2

RCS1

RCS2

TB\_PWR

GND

C1

CAP2

5V GND VIN

L1

C4

CAP1

BAT1

C3

C2

L6234

R2

MISO

MOSI

SCK

GND

SDA

SCL

SCL  
PULL

SDA  
PULL

PULL A

PULL B

PULL\_I

A/U

B/V

I/W

GND

5V

P\_ENC

TX

RX

Simple**FOC**Shield

V2.0.3

Arduino/STM32

BLDC

Encoder/Hall

Current Sense

pull A B I

encoder driver  
order to enable

3  
2  
1  
0  
B  
A  
enable

10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0  
B  
A  
enable

13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0  
B  
A  
enable

20  
19  
18  
17  
16  
15  
14  
13  
12  
11  
10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0  
B  
A  
enable

order to enable  
I2C pins

U/I U/B U/A  
13 12 11 10 9 8 7 6 5 4 3 2 1 0  
A B I

binout count  
Encoder HAT

+

binout count  
Encoder HAT

phase B  
A  
3  
2  
1  
0  
B  
A  
enable

count  
binout & ADC  
Current sense

VIN  
regulator  
enable 8V

+

+

+

+

C B A

ACC  
END

05/5051  
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