OSHW   Watterott

JP1 JP2 JP3 JP4 JP5

CFG-6 CFG-1 CFG-2 CFG-3 STEP DIR
GND VIO OA2 OA1 OB1 OB2 VM
DIAG0 DIAG1 IREF

IC1 TMC2100-LA

VS   VCP   CPI   CPO   OA1   OA2   OB1   OB2   BRA   BRB   AIN_IREF   TST_MODE

VSA   VCC_IO   VCC   5VOUT   GNDA   GND   DRV_ENN_CFG6   SPI_MODE   SD_MODE   SWP_DIAG1   SWN_DIAG0   CSN_CFG3   SCK_CFG2   SDI_NAI_CFG1   SDO_NAO_CFG0   CLK   ENCN_DCO   ENCA_DCIN_CFG5   ENCB_DCEN_CFG4   REFL_STEP   REFR_DIR

C8 1u/50V
C7 100n/50V
C6 100n/50V
C5 22n/50V
C1 100n/50V
C4 4u7/10V
C3 470n/10V
C2 100n/50V

R1 2R2
R2 R080S/0R11
R4 R080S/0R11
R5 20k
R6 20k

GND VM VIO +5V IREF

16*2   11*4

30 8 26 25 24 22 10 9 21 20 2 3 4 5 1 17 19 18 6 7
29 28 27 34 32 13 15 33 14 23 36

CFG6 DIAG1 DIAG0 CFG3 CFG2 CFG1 CFG0 CFG5 CFG4 STEP DIR

CFG0 CFG4 CFG5 CFG1 CFG2 CFG3 CFG6

CFG6/En
GND -> Driver enabled
Vio -> Driver disabled
Open -> Driver enabled with ramp down from 100% to 34% after about 3s

CFG2	CFG1	Steps	Interpolation	Chopper Mode
GND	GND	1	No	spreadCycle
GND	Vio	2	No	spreadCycle
GND	Open	2	Yes to 256	spreadCycle
Vio	GND	4	No	spreadCycle
Vio	Vio	16	No	spreadCycle
Vio	Open	4	Yes to 256	spreadCycle
Open	GND	16	Yes to 256	spreadCycle
Open	Vio	4	Yes to 256	stealthChop
Open	Open	16	Yes to 256	stealthChop

Component Side View
(Bottom)

Dir

Step

nc

nc

CFG3

CFG2

CFG1

En/CFG6

GND

Vio - 3.3-5V

Motor Coil 1-B

Motor Coil 1-A

Motor Coil 2-A

Motor Coil 2-B

GND

Vm

VRef
DIAG0
DIAG1
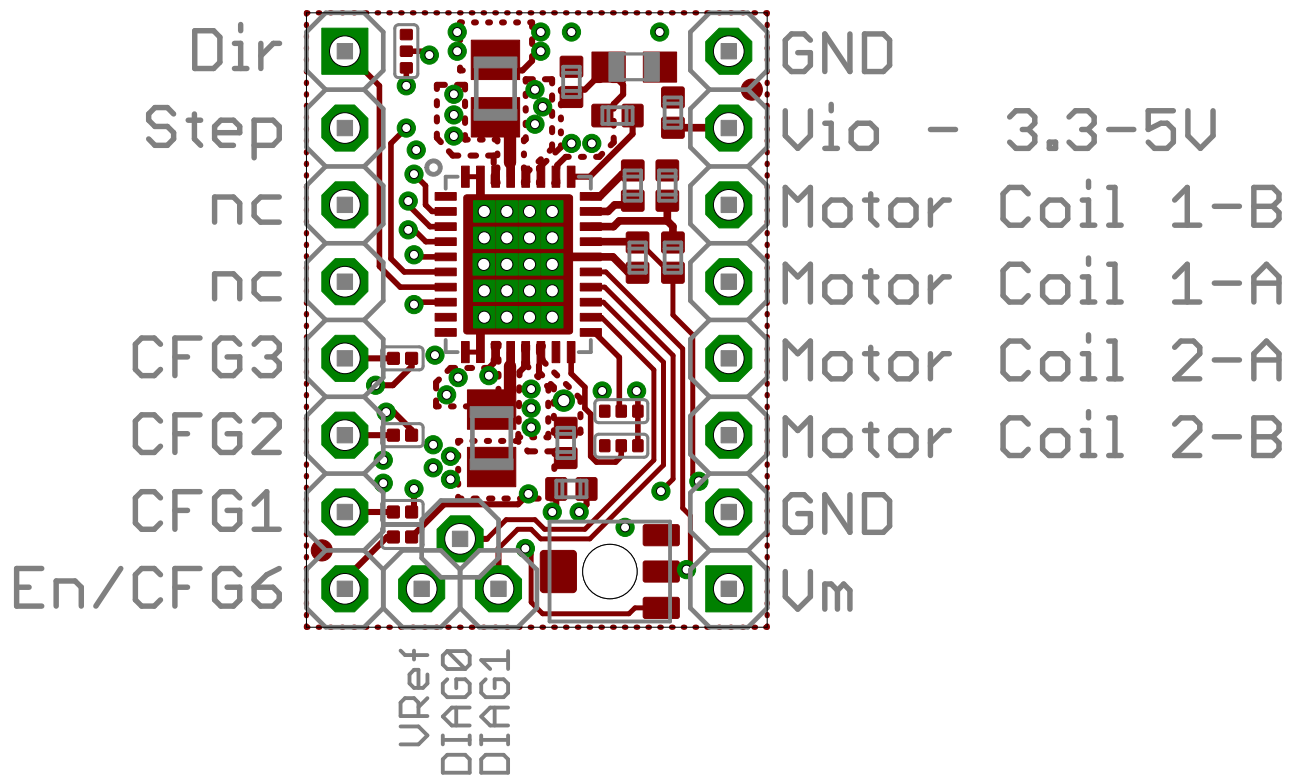
SilentStepStick

Pinout

GND	Dir
VIO	Step
M1B	
M1A	
M2A	CFG3
M2B	CFG2
GND	CFG1
VM	En

Current Adj.

VRef
Diag0
Diag1

Microcontroller

Motor Power Supply 5.5V - 45V

Logic Power Supply 3 - 5V
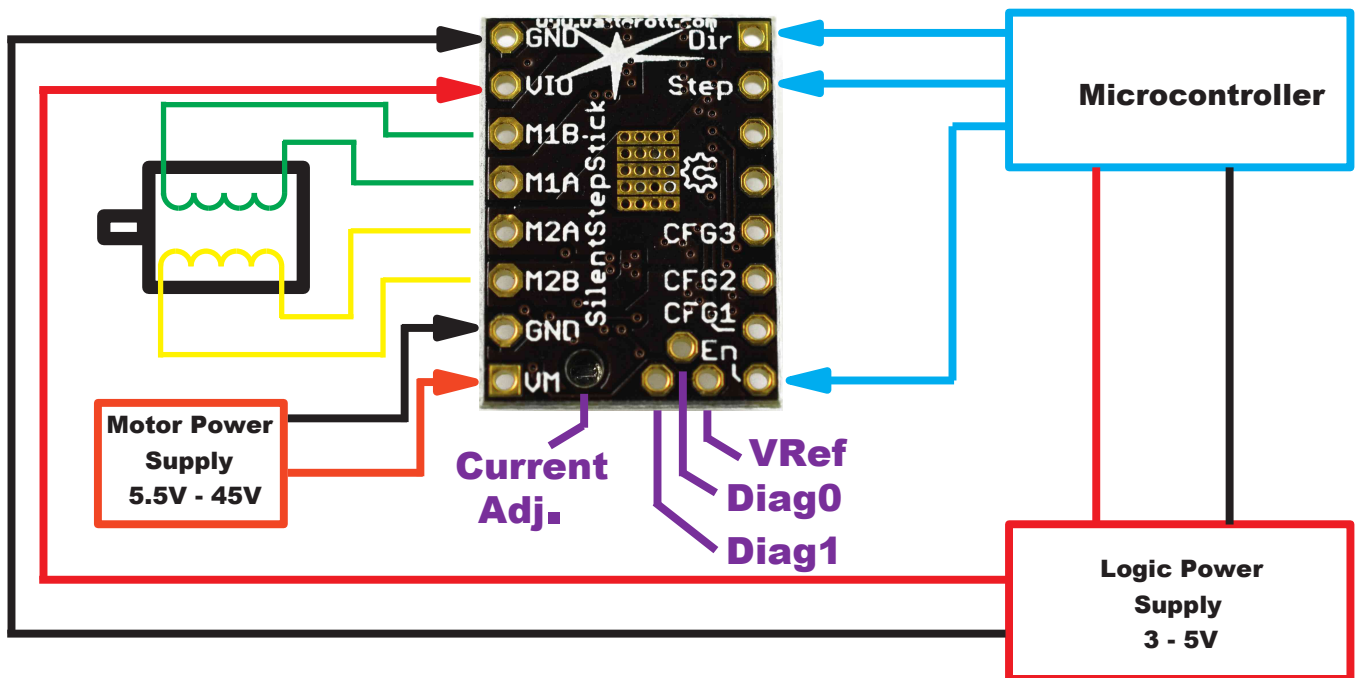
Jumper Settings

Jumper	Default
CFG0	GND
CFG1	Closed
CFG2	Closed
CFG3	Open
CFG4	GND
CFG5	VCC
CFG6	Closed

Pin Header

Pin configuration for steahlChop mode with 16 microsteps and interpolation to 256 microsteps.