Stepper connector:
Standard 1.27 TH connector for hand soldering
Molex Picoblade 4p SMD
DNP if not needed

J1
Conn_01x04_Pin
1 OA2
2 OA1
3 OB1
4 OB2

J3
53261-0471
1 OB2
2 OB1
3 OA1
4 OA2
SHIELD SH2
GND

Symbol:OSHW-Logo_5.7x6mm_SilkScreen

IC1
TMC2300
+3.3V
C2 10u
C3 100n
GND
VS 18
VCP 2
EN 7
STEPPER 8
STEP 4
DIR 3
MS1\AD0 5
MS2\AD1 6
MODE 9
STDBY 11
DIAG 12
ePD/UART 10
GND 14
PAD 21
OA1 19
OA2 1
BRA 20
OB1 17
OB2 15
BRB 16
1.8Vout 13
SENS A
SENS B
R11 220
R12 220
C4 100n
D2 white/0603
R10 1k
PD/UART

U1
MOUDLE-SEEEDUINO-XIAO-ESP32C3
PA02_A0_D0 1
PA4_A1_D1 2 DIAG
PA10_A2_D2 3 STDBY
PA11_A3_D3 4 DIR
PA8_A4_D4_SDA 5 STEP
PA9_A5_D5_SCL 6 END
PB08_A6_D6_TX 7 TX
5V 14 +5V
GND 13 GND
3V3 12 +3.3V
PA6_A10_D10_MOS 11
PA5_A9_D9_MISO 10
PA7_A8_D8_SCK 9
PB09_A7_D7_RX 8 RX

J4
Conn_01x08_Pin
+5V
+3.3V
GND
RX

J2
Conn_01x07_Pin
DIAG 1
STDBY 2
DIR 3
STEP 4
END 5
TX 6
7

STDBY
R1 100k
D1 0603/LED Green
R4 1k
C1 100n
GND

+3.3V
MS1\AD0 R7 100k
MS2\AD1 100k
Standalone: HIGH or LOW sets microstepping
UART: HIGH or LOW sets address
STEP R8 100k
DIR R9 100k
GND

PWR_FLAG+3.3V
PWR_FLAG
GND

H1 MountingHole_Pad
H2 MountingHole_Pad
H3 MountingHole_Pad
H4 MountingHole_Pad
GND

UART: Input/Output
STANDALONE: LOW = power-down
TX R2 100k PD/UART
RX

+3.3V
END R3 100k
EN Set LOW or HIGH as Pullup or Pulldown preset
J5
Conn_01x03_Pin
GND

Sheet: /
File: openValve_pcb.kicad_sch
Title:
Size: A4 | Date: | Rev:
KiCad E.D.A. 9.0.0 | Id: 1/1