Logic Powersuply
GND1 +5VD

Logic GND
Logic 5v

Motorsuply
GND1 +12V

C2
capacitor 100 µf

ZStepper
Pololu_Breakout_DRV8825
Logic GND Logic 5V
FLT RST SLP VMOT 8
13
14
EN 9
STEP 15
DIR 16
A1 4
A2 3
M0 10
M1 11
M2 12
B1
B2
ZStepPin
ZDirPin
GND GND
Logic GND 1 7
Stepper_Motor_bipolar
M5

YStepper
Pololu_Breakout_DRV8825
Logic GND Logic 5V
FLT RST SLP VMOT 8
13
14
EN 9
STEP 15
DIR 16
A1 4
A2 3
M0 10
M1 11
M2 12
B1
B2
YStepPin
YDirPin
GND GND
Logic GND 1 7
Stepper_Motor_bipolar
M3

XStepper
Pololu_Breakout_DRV8825
Logic GND Logic 5V
FLT RST SLP VMOT 8
13
14
EN 9
STEP 15
DIR 16
A1 4
A2 3
M0 10
M1 11
M2 12
B1
B2
XStepPin
XDirPin
GND GND
Logic GND 1 7
Stepper_Motor_bipolar
M2

U2
ATmega2560-16A
VCC 10 Logic 5v
AVCC 100

30 RESET
34 XTAL1
33 XTAL2
98 AREF

PA0 78 XDirPin
PA1 77 XStepPin
PA2 76 YDirPin
PA3 75 YStepPin
PA4 74 ZDirPin
PA5 73 ZStepPin
PA6 72
PA7 71

35 PL0   PB0 19
36 PL1   PB1 20
37 PL2   PB2 21
38 PL3   PB3 22
39 PL4   PB4 23
40 PL5   PB5 24
41 PL6   PB6 25
42 PL7   PB7 26

89 PK0   PC0 53
88 PK1   PC1 54
87 PK2   PC2 55
86 PK3   PC3 56
85 PK4   PC4 57
84 PK5   PC5 58
83 PK6   PC6 59
82 PK7   PC7 60

63 PJ0   PD0 43
64 PJ1   PD1 44
65 PJ2   PD2 45
66 PJ3   PD3 46
67 PJ4   PD4 47
68 PJ5   PD5 48
69 PJ6   PD6 49
79 PJ7   PD7 50

12 PH0   PE0 2
13 PH1   PE1 3
14 PH2   PE2 4
15 PH3   PE3 5
16 PH4   PE4 6
17 PH5   PE5 7
18 PH6   PE6 8
27 PH7   PE7 9

51 PG0   PF0 97
52 PG1   PF1 96
70 PG2   PF2 95
28 PG3   PF3 94
29 PG4   PF4 93
1 PG5   PF5 92
              PF6 91
              PF7 90

GND 11
Logic GND

EncoderX
Rotary Encoder 600R/P
B GND Logic GND
A Vin Logic 5V

EncoderY
Rotary Encoder 600R/P
B GND Logic GND
A Vin Logic 5V

EncoderZ
Rotary Encoder 600R/P
B GND Logic GND
A Vin Logic 5V

Sens2Sea
Sheet: /
File: CNC3DFull.kicad_sch
Title: CNC 3 assen motor aansturing
Size: A4   Date: 2026-01-08   Rev: 2026-01-08
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