Wiring for CNC Control Box

RASPBERRY Pi-5 8G

+5V

ETHERNET

7i95t

My DRO is a TTL interface and my earths are commoned so I can put it straight into the 7i95t. I put a male and female DB-9 for each line so the sensors plug into one and the additional cables back to the DRO plug into the other retaining continuity so the DRO just works as normal.

I have arbitaraly numbered the driver module pins so that 1 is nearest to the front panel.

X M1

J1 — BLACK, GREEN, RED, BLUE
JOG — BLACK, WHITE, YELLOW, RED
J6 — YELLOW, PINK, WHITE, BROWN
D1

X-DRIVER TB6600 — VCC, GND, A+, A-, B+, B-, PUL+, PUL-, DIR+, DIR-, ENA+, ENA-

+36V

MOTION SYSTEM SW — AUTO, ENGAGE, FREE

ROTARY ENCODER — A, B, VCC, GND

Y M2

J2 — BLACK, GREEN, RED, BLUE
JOG — BLACK, WHITE, YELLOW, RED
J7 — YELLOW, PINK, WHITE, BROWN
D2

Y-DRIVER TB6600 — VCC, GND, A+, A-, B+, B-, PUL+, PUL-, DIR+, DIR-, ENA+, ENA-

+36V

+5V

Z M3

J3 — BLACK, GREEN, RED, BLUE
JOG — BLACK, WHITE, YELLOW, RED
J8 — YELLOW, PINK, WHITE, BROWN
D3

Z-DRIVER DM56T — B-, B+, A-, A+, +V, GND, ALM-, ALM+, ENA-, ENA+, DIR-, DIR+, PUL-, PUL+

+48V

S SPINDLE J4
BLACK 1 GND
RED 2 ON
GREEN 3 CCW
ORANGE 4 SPINDLE
YELLOW 5 PWM
WHITE 6 PULSE

The documentation for the DM556T does not show the pins 7 and 8 (alarm) that are on mine. This makes the pin numbering a bit wierd.

TB1, TB2, TB3, TB4, TB5, TB6

J5 MAINS IN — N, E, L
SW8

48V PSU
36V PSU
5/12V PSU

+12V
M4 Fan
GNDPWR

+48V
+36V
+5V

PENDANT
8 LMP-, 15 x100, 7 ESTOP, 14 x10, 6 +5V, 13 x1, 5 B-, 12 AX4, 4 A-, 11 Z, 3 B, 10 Y, 2 A, 9 X, 1 LMP+
0

+5V

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