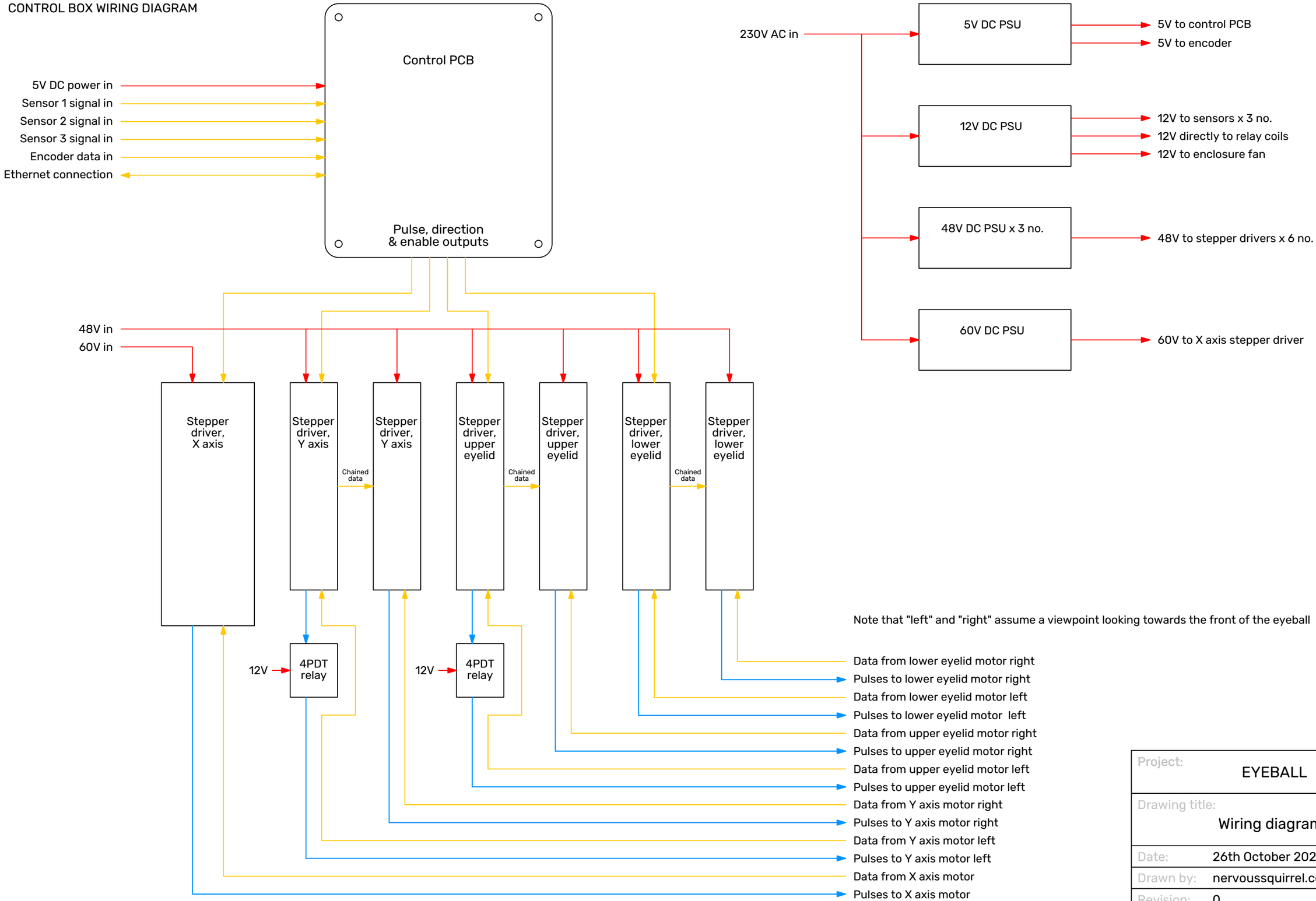
CONTROL BOX WIRING DIAGRAM

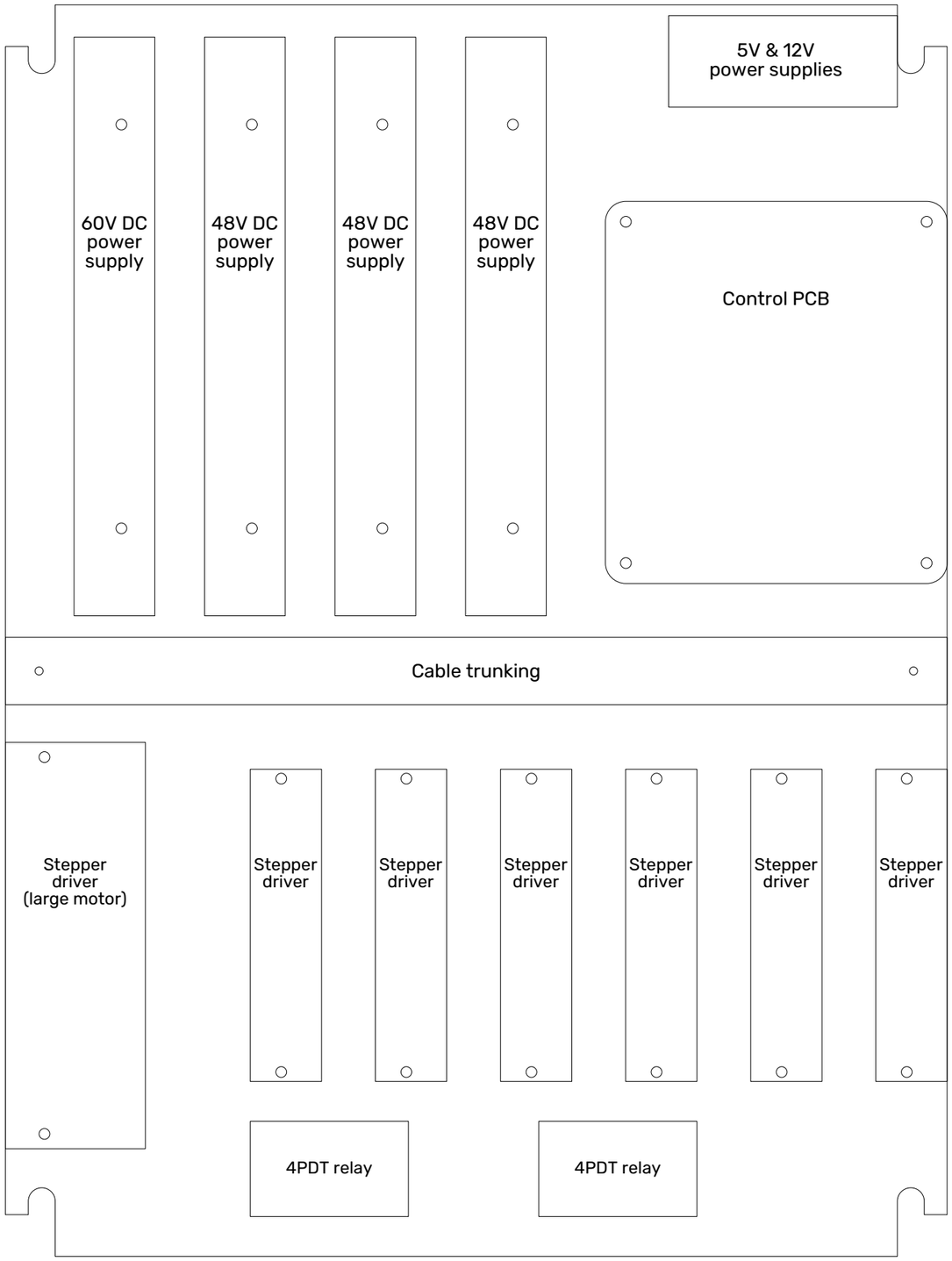


Note that "left" and "right" assume a viewpoint looking towards the front of the eyeball

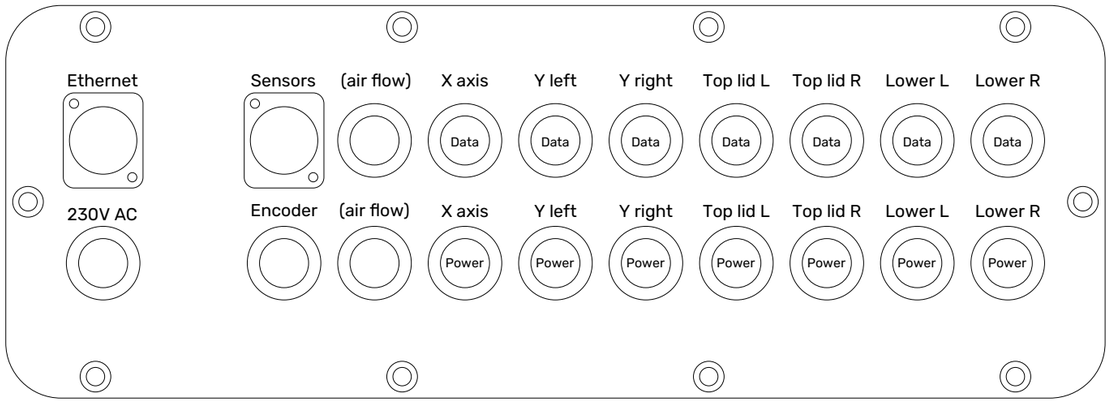
Data from lower eyelid motor right
Pulses to lower eyelid motor right
Data from lower eyelid motor left
Pulses to lower eyelid motor left
Data from upper eyelid motor right
Pulses to upper eyelid motor right
Data from upper eyelid motor left
Pulses to upper eyelid motor left
Data from Y axis motor right
Pulses to Y axis motor right
Data from Y axis motor left
Pulses to Y axis motor left
Data from X axis motor
Pulses to X axis motor

Project:	EYEBALL
Drawing title:	Wiring diagrams
Date:	26th October 2026
Drawn by:	nervoussquirrel.com
Revision:	0
Scale:	NTS All dimensions in mm
Sheet:	1 of 3

CONTROL BOX LAYOUT



CONTROL BOX CONNECTION PLATE



Project:	EYEBALL
Drawing title:	Wiring diagrams
Date:	26th October 2026
Drawn by:	nervoussquirrel.com
Revision:	0
Scale:	NTS All dimensions in mm
Sheet:	2 of 3

Sparkfun ethernet adapter

J?
RJ45_LED_Shielded

TR?
B10601S

Optional NPN transistor board (typical single channel)
Used to control optocouplers for stepper drivers, relay boards etc.

J?
Conn_02x03_Counter_Clockwise

U1
Teensy4.1

SW1
SW_Push

SW2
SW_Push

SW1
SW_Coded_SH-7050

The PCBs have provision for up to 8 no. 4 channel transistor PCBs
(although the amount in use will vary from board to board)

nervoussquirrel.com

Sheet: /		
File: wtt_pcb_v2.kicad_sch		
Title: PCB for kinetic elements, board V2.0		
Size: A4	Date: 2026-04-28	Rev: 1
KiCad E.D.A. 10.0.1		Id: 1/1