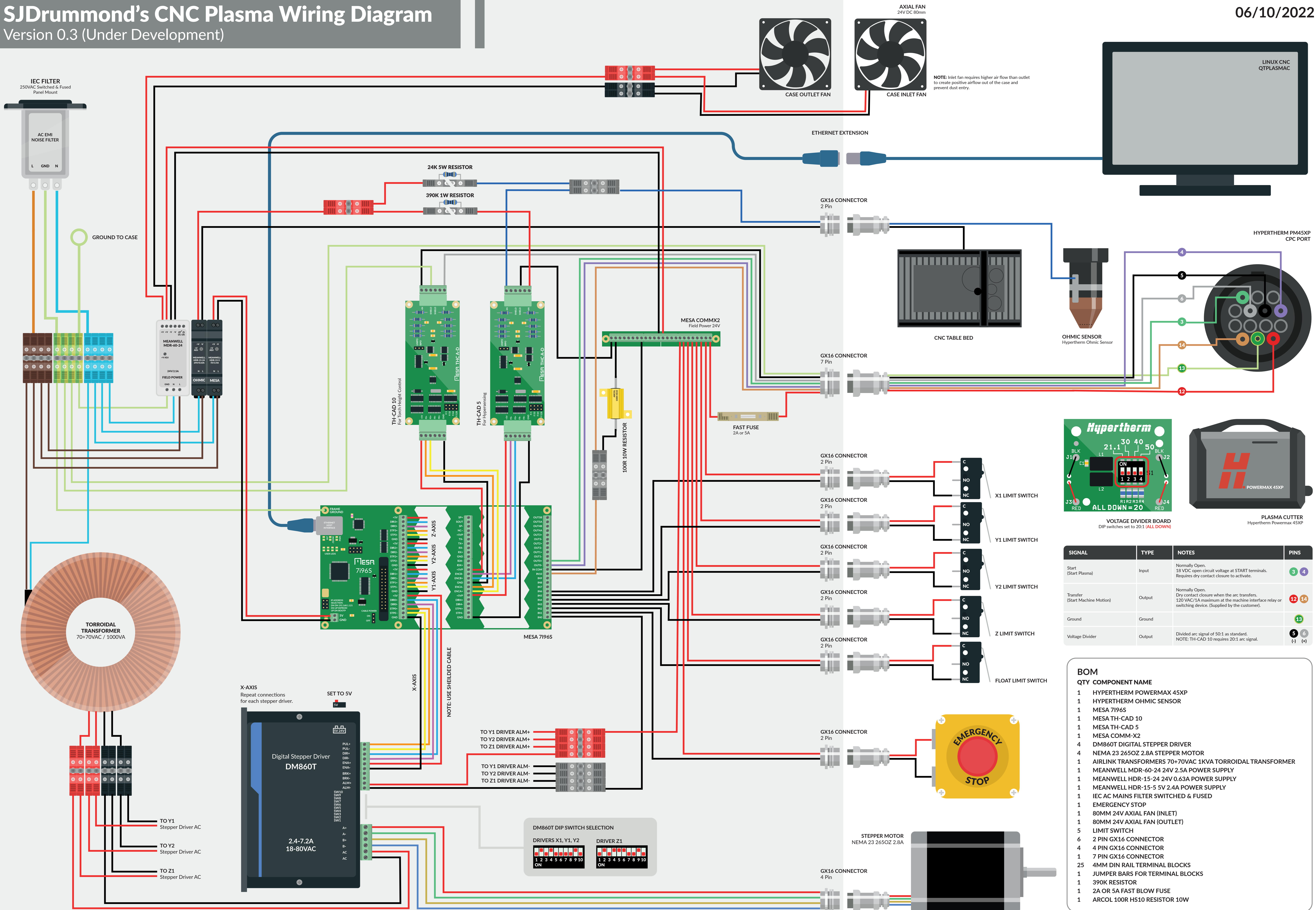


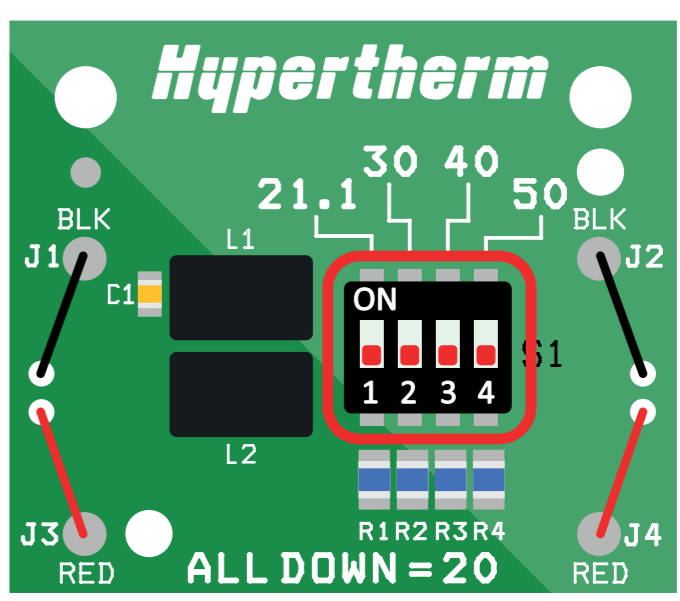
SJDrummond's CNC Plasma Wiring Diagram

Version 0.3 (Under Development)

06/10/2022



NOTE: Inlet fan requires higher air flow than outlet to create positive airflow out of the case and prevent dust entry.



VOLTAGE DIVIDER BOARD
DIP switches set to 20:1 (ALL DOWN)

| SIGNAL | TYPE | NOTES | PINS |
|---------------------------------|--------|---|----------------|
| Start (Start Plasma) | Input | Normally Open. 18 VDC open circuit voltage at START terminals. Requires dry contact closure to activate. | 3 4 |
| Transfer (Start Machine Motion) | Output | Normally Open. Dry contact closure when the arc transfers. 120 VAC/1A maximum at the machine interface relay or switching device. (Supplied by the customer). | 12 14 |
| Ground | Ground | | 13 |
| Voltage Divider | Output | Divided arc signal of 50:1 as standard. NOTE: TH-CAD 10 requires 20:1 arc signal. | 5 6 (-) (+) |

BOM

| QTY | COMPONENT NAME |
|-----|--|
| 1 | HYPERTHERM POWERMAX 45XP |
| 1 | HYPERTHERM OHMIC SENSOR |
| 1 | MESA 7196S |
| 1 | MESA TH-CAD 10 |
| 1 | MESA TH-CAD 5 |
| 1 | MESA COMM-X2 |
| 4 | DM860T DIGITAL STEPPER DRIVER |
| 4 | NEMA 23 265OZ 2.8A STEPPER MOTOR |
| 1 | AIRLINK TRANSFORMERS 70+70VAC 1KVA TORROIDAL TRANSFORMER |
| 1 | MEANWELL MDR-60-24 24V 2.5A POWER SUPPLY |
| 1 | MEANWELL HDR-15-24 24V 0.63A POWER SUPPLY |
| 1 | MEANWELL HDR-15-5 5V 2.4A POWER SUPPLY |
| 1 | IEC AC MAINS FILTER SWITCHED & FUSED |
| 1 | EMERGENCY STOP |
| 1 | 80MM 24V AXIAL FAN (INLET) |
| 1 | 80MM 24V AXIAL FAN (OUTLET) |
| 5 | LIMIT SWITCH |
| 2 | 2 PIN GX16 CONNECTOR |
| 4 | 4 PIN GX16 CONNECTOR |
| 1 | 7 PIN GX16 CONNECTOR |
| 25 | 4MM DIN RAIL TERMINAL BLOCKS |
| 1 | JUMPER BARS FOR TERMINAL BLOCKS |
| 1 | 390K RESISTOR |
| 1 | 2A OR 5A FAST BLOW FUSE |
| 1 | ARCOL 100R H510 RESISTOR 10W |