### Electronics/Power Layout

Thursday, April 11, 2019 10:47 AM

### **Manifold Switch**

Requirements: 24V DC 1A Max USB

### **Peristaltic Pump**

Requirements: 24V DC 1.25A Max + Over-current prot.

### 2-Switch + Drivers

Requirements: 5V + 20mA per driver 24V DC + 48mA per driver

# XY Stage + Limit Switches + Arduino

Requirements: 12V + 0.33A/Motor + 30mA idle Switches on 5V + 20mA each

## Power Handling Board 24Vin

1.25A 24V Over-current prot.

24V - direct

5V - Traco 1A max

12V - Traco box 1A max

### **USB Hub**

### Requirements:

5V + Current dependent on whether anything is powered from it. In our case the usb hub does not power anything and is Powered from the PC

### Cumulative Requirements 24V DC applied to main input

Device	Max Current (A)
Pump	1.25
M-Switch	1
3x 2-switch	0.204
2x Motor	0.66
2x Limit S	0.04
Arduino	0.03
USB	0
Total	3.184
5V Load	0.06
12V Load	0.73
24V Load	2.394

