Electronics/Power Layout

Manifold Switch

Requirements:
24V DC
1A Max
USB

Peristaltic Pump

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

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

Overcurrent protection

24 Vin

5V

12V

24V+p.   24V

Each 8/9 connection to a different 2-switch

NC   NC

1   2   3   4   5   6   7   8   9

USB Hub

5V

GND

Digital I/O
Pins specified in
XYStage_LimitSwitch_
TwoSwitch_Control.cpp

Top motor   Bottom Motor