**DIY Motion Platform Illustrative System Wiring - 64SPU-2**

24V DC PM Motors up to 20Amp nom ea.

Power supply to match – it must be able to sink current. Note MD03's rated to 20 Amp ea. See MD03 documentation for motor noise suppression requirements.

24V DC Power Supply
Eg Batteries

**25A Fuse**

Pot1
Feedback potentiometers shown, +ve rotation must match +ve rotation of Motors. – see 64SPU-1 data sheet

Pot2

Pot3

10K linear pots fixed to actuators to provide Position feedback.

Wiper

**MD03 1**
I2C Address 0xB0

**MD03 2**
I2C Address 0xB2

**MD03 3**
I2C Address 0xB4

Devantech MD03 DC Motor Controllers

Max wire length between 64SPU-1 and MD03’s – 300mm. Avoid loops in the logic GND wiring. Keep 64SPU-2 AWAY from high current end of MD03’s.

**64SPU-2 Signal Processor**
See data sheet for full details of connections

OR

STDP Power Switch (supplied)

USB/TTL Input Cable

**5V DC Regulated I2C Bus Supply**

**IMPORTANT**
Actuator normally closed limit switches MUST be wired in the 5V to MD03 line as Emergency Stop trip switches (note up to 6 needed –only 2 shown). An additional NC switch should be added as a manual Emergency Stop button.

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