## DIY Motion Platform Illustrative System Wiring IMPORTANT - the power supply to The 64SPU-1 MUST be a 5V REGULATED Feedback potentiometers shown, +ve Normally closed 24V DC PM Motors up to 20Amp nom ea. supply of at least 500 mA capacity. rotation must match +ve rotation of Pot1 "Output Pause" Power supply to match – it must be able to sink An unregulated or inadequate power supply motors. Alternative MA3 encoders switch current. Note MDO3's rated to 20 Amp ea. See can cause malfunction of the hardware and may be used - see 64SPU-1 data sheet MDO3 documentation for motor noise suppression may result in loss of motion control. requirements. Pot2 Wiper 10K linear 64SPU-1 Signal Processor +24V pots fixed to See data sheet for full details of connections actuators to 0V provide Pot3 <u>Position</u> 24V DC Power feedback. 5V DC Supply Regulated Eg Batteries (500mA 25A Fuse min) **GND SDA** M+ SCL 0V **IMPORTANT** +5V MD03 1 From PC Act 1 / Pitch Actuator normally closed limit 12C Address OxBO PICAXE AXEO27 (USB) switches MUST be wired in the Motor Or AXEO26 (Serial) 5V to MDO3 line as **GND** Input Cable Emergency Stop trip switches SDA (note up to 6 needed -only 2 shown). SCL An additional NC switch should be 0V +5V MD03 2 added as a manual Emergency Act 2 / Roll 12C Address OxB2 Stop button. Motor Max wire length between 64SPU-1 and MD03's - 300mm. **GND** Avoid loops in the logic GND wiring. **SDA** Keep 64SPU-1 AWAY from high SCL

0V

Act 3 / Heave

Motor

MD03 3

12C Address OxB4

Devantech MDO3 DC Motor Controllers

+5V

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current end of MDO3's.

Do not connect OV on 64SPU-1

directly to the 24/36V battery -ve.