Motor Drive board connections

JP1a, Header 12, PIC connections; push-in

Pin		Value
1	Bipolar 1	TTL logic
2	Direction 1	TTL logic
3	PWM 1	TTL logic
4	Bipolar 2	TTL logic
5	Direction 2	TTL logic
6	PWM 2	TTL logic
7	Enable	TTL logic
8	MicroLan	TTL logic – 1 wire bus
9	Analog A-	0-5V Current Sense
10	Analog A+	0-5V Current Sense
11	Analog B-	0-5V Current Sense
12	Analog B+	0-5V Current Sense

JP2 Jumper

If the jumper is fitted, the motor driver ic is connected to the battery voltage

J3 Battery connections; 3-way molex

Pin	Name	Value
1	0Vpwr	Power 0V (Bat-)
2		
3	Vbatt	10V (Bat+)

JP4 Isolated +5V connections for PIC and sensors; push-in

Pin	Name
1	+5V
2	+5V
3	+5V

JP5 Isolated 0V connections for PIC and sensors; push-in

Pin	Name
1	GND
2	GND
3	GND

JP6, Header2, is not fitted.

JP8, Header 3, Motor connections; push-in

Pin	Name	Motor
1	Out2L	2 (B)
2	Out2R	2 (B)
3	Out1L	1 (A)
4	Out1R	1 (A)

Test points (PCB revisions prior to V3.2 [Green Soldermasks])

Number	Label	Signal
TP 1	L1 test	PWM 1 logic signal L
TP 2	R1 test	PWM 1 logic signal R
TP 3	Out1R	Motor 1 voltage R
TP 4	Out2R	Motor 2 voltage R
TP 5	Out1L	Motor 1 voltage L
TP 6	R2 test	PWM 2 logic signal R
TP 7	Test	Enable
TP 8	L2 test	PWM 2 logic signal L
TP 9	Out2L	Motor 2 voltage L
TP 10	IsoGnd	Isolated 0V (for PIC)
TP 11	+5V	5V (for power circuits)
TP 12	+VBatt	Battery voltage
TP 13	Iso +5V	Isolated 5V (for PIC)
TP 14	0V	Power 0V
TP 15	0V	Power 0V
TP 16	VM	Motor driver voltage
TP 17	MicroLan Test	1 wire data bus
TP 18	ISense 1-	Current Sense 1-
TP 19	ISense 2-	Current Sense 2-
TP 20	ISense 1+	Current Sense 1+
TP 21	ISense 2+	Current Sense 2+

Test Points (Motor Drive Board V3.2
[Purple Soldermask])

Number	Pin	Label	Signal
T1a	1	GND_ISO	Isolated 0V
	2	L1 test	PWM 1 logic signal L
	3	R1 test	PWM 1 logic signal R
T1b	1	Test	Enable
	2	R2 test	PWM 2 logic signal R
	3	L2 test	PWM 2 logic signal L
T2	1	GND_ISO	Isolated 0V
	2	MicroLan Test	1 wire data bus
T3	1	Out1L	Motor 1 voltage L
	2	Out1R	Motor 1 voltage R
T4	1	Out2L	Motor 2 voltage L
	2	Out2R	Motor 2 voltage R
T5	1	0V	Power 0V
	2	+VBatt	Battery voltage
	3	VM	Motor driver voltage
T6	1	0V	Power 0V
	2	+5V	5V (for power circuits)

Useful Note: Pin 1 of the Test point headers can be identified via each header label (all labels have been placed next pin 1) or via the square pad (see bottom side of the PCB).