

DEWBOT IV

8/22/2009

Robot Controller Connections

PWM		DIGITAL				RELAYS		ANALOG	
pwm01		Dig01	INT2 - RB2	Arm Encoder A-Phase	INPUT	Relay1	Compressor	Ana01	Gyro
pwm02		Dig02	INT3 - RB3	Sonar Sensor Interrupt	INPUT	Fwd	Red	Ana02	
pwm03	Right Drive Motor A	Dig03	RB4	Drive Encoder A-Phase	INPUT	Rev	Blk	Ana03	
	Right Drive Motor B	Dig04	RB5		INPUT	Relay2	8" Fork	Ana04	
pwm04	Left Drive Motor A	Dig05	RB6		INPUT	Fwd	Retract	Ana05	
	Left Drive Motor B	Dig06	RB7		INPUT	Rev	Extend	Ana06	
pwm05	Right Arm Motor	Dig07		Pressure Switch	INPUT	Relay3	1.5" Fork	Ana07	
pwm06	Left Arm Motor	Dig08		Top Limit Switch	INPUT	Fwd	Retract	Ana08	
pwm07		Dig09		Bot Limit Switch	INPUT	Rev	Extend	Ana09	
pwm08		Dig10			INPUT	Relay4	6" Catapult	Ana10	
pwm09		Dig11		Arm Encoder B-Phase	INPUT	Fwd	Retract	Ana11	
pwm10		Dig12			INPUT	Rev	Extend	Ana12	
pwm11		Dig13		Drive Encoder B-Phase	INPUT	Relay5	6" Catapult	Ana13	
pwm12		Dig14			INPUT	Fwd	Retract	Ana14	
pwm13		Dig15			OUTPUT	Rev	Extend	Ana15	
pwm14		Dig16		Sonar Sensor Start Pulse	OUTPUT	Relay6	Shifter	Ana16	
pwm15						Fwd	Retract (Low)		
pwm16						Rev	Extend (High)		
						Relay7			
						Fwd			
						Rev			
						Relay8			
						Fwd			
						Rev			

Operator Interface Connections

PORT1 (Drive)				PORT2			
Pin1		+5V		Pin1		+5V	
Pin2	p1_sw_trig	Joystick Trigger Switch		Pin2	p2_sw_trig	Joystick Trigger Switch	CAPTURE Button
Pin3	p1_x	X-Axis		Pin3	p2_x	X-Axis	
Pin4		Ground		Pin4		Ground	
Pin5	Pwm2_red	LED	IR - CMD1	Pin5	p3_sw_trig	Mapped to Port 3	PTP Button
Pin6	p1_y	Y-Axis		Pin6	p2_y	Y-Axis	
Pin7	p1_sw_top	Joystick Thumb Switch		Pin7	p2_sw_top	Joystick Thumb Switch	POSSESS Button
Pin8	Pwm1_red	LED	IR - CMD0	Pin8	p3_sw_top	Mapped to Port 3	PLACE Button
Pin9	Pwm2_green	LED	ARM - [AUTO]	Pin9	p3_sw_aux1	Mapped to Port 3	SHIFTER Toggle
Pin10	p1_sw_aux1	Aux Switch1		Pin10	p2_sw_aux1	Aux Switch1	ARMED Button
Pin11	p1_aux	Aux Analog		Pin11	p2_aux	Aux Analog	
Pin12		Ground		Pin12		Ground	
Pin13	p1_wheel	Wheel		Pin13	p2_wheel	Wheel	
Pin14	p1_sw_aux2	Aux Switch2		Pin14	p2_sw_aux2	Aux Switch2	HURDLE Button
Pin15	Pwm1_green	LED	SHIFTER - [HIGH]	Pin15	p3_sw_aux2	Mapped to Port 3	MAN ARM Toggle

TERMINAL BLOCK # 1												TERMINAL BLOCK #2											
1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
																Capture - Light Green	Possess - Red/White	Armed - Grey/Black	Hurdle - Red/Black	PTP - Brown/White	Place - Orange	Manual Arm - Green	Shifter - Blue

Operator Interface Connections

PORT3				PORT4 (Arm)			
Pin1		+5V		Pin1		+5V	
Pin2	p3_sw_trig	Joystick Trigger Switch		Pin2	p4_sw_trig	Joystick Trigger Switch	
Pin3	p3_x	X-Axis		Pin3	p4_x	X-Axis	
Pin4		Ground		Pin4		Ground	
Pin5	Relay 2_red	LED	IR - CMD4	Pin5	p1_sw_trig	Mapped to Port 1	
Pin6	p3_y	Y-Axis		Pin6	p4_y	Y-Axis	
Pin7	p3_sw_top	Joystick Thumb Switch		Pin7	p4_sw_top	Joystick Thumb Switch	
Pin8	Relay 1_red	LED	IR - CMD3	Pin8	p1_sw_top	Mapped to Port 1	
Pin9	Relay 2_green	LED	PTP/PLACE	Pin9	p1_sw_aux1	Mapped to Port 1	
Pin10	p3_sw_aux1	Aux Switch1		Pin10	p4_sw_aux1	Aux Switch1	PARK Button
Pin11	p3_aux	Aux Analog		Pin11	p4_aux	Aux Analog	
Pin12		Ground		Pin12		Ground	
Pin13	p3_wheel	Wheel		Pin13	p4_wheel	Wheel	
Pin14	p3_sw_aux2	Aux Switch2		Pin14	p4_sw_aux2	Aux Switch2	CATCH Button
Pin15	Relay 1_green	LED	SONAR SENSE	Pin15	p1_sw_aux2	Mapped to Port 1	

LED DIAGNOSTICS

