

### Robot Controller Pin to PIC Microcontroller Pin Mapping

PIC18F8520 Pin #	PIC18F8520 Pin Name	2004-2005 FRC-RC Pin Name	EDU-RC Pin Name	Vex Pin Name
1	RH2/A18	Digital I/O 9		
2	RH3/A19	Digital I/O 10		
3	RE1/WR/AD9	Relay 2 Fwd		Motor 6
4	RE0/RD/AD8	Relay 1 Fwd		Motor 5
5	RG0/CCP3	PWM Output 14 (1)	PWM Output 2	Motor 2
6	RG1/TX2/CK2	TTL Serial Tx	TTL Serial Tx	TTL Serial Tx
7	RG2/RX2/DT2	TTL Serial Rx	TTL Serial Rx	TTL Serial Rx
8	RG3/CCP4	PWM Output 15 (1)	PWM Output 3	Motor 3
9	MCLR/Vpp			
10	RG4/CCP5	PWM Output 16 (1)	PWM Output 4	Motor 4
11	Vss			
12	Vdd			
13	RF7/SS			
14	RF6/AN11	Analog Input 12	Digital I/O 12	Analog / Digital 12
15	RF5/AN10/CVref	Analog Input 11	Digital I/O 11	Analog / Digital 11
16	RF4/AN9	Analog Input 10	Digital I/O 10	Analog / Digital 10
17	RF3/AN8	Analog Input 9	Digital I/O 9	Analog / Digital 9
18	RF2/AN7/C1OUT	Analog Input 8	Digital I/O 8	Analog / Digital 8
19	RH7/AN15	Analog Input 16	Digital I/O 16	Analog / Digital 16
20	RH6/AN14	Analog Input 15	Digital I/O 15	Analog / Digital 15
21	RH5/AN13	Analog Input 14	Digital I/O 14	Analog / Digital 14
22	RH4/AN12	Analog Input 13	Digital I/O 13	Analog / Digital 13
23	RF1/AN6/C2OUT	Analog Input 7	Digital I/O 7	Analog / Digital 7
24	RF0/AN5	Analog Input 6	Digital I/O 6	Analog / Digital 6
25	Avdd			
26	Avss			
27	RA3/AN3/Vref+	Analog Input 4	Digital I/O 4	Analog / Digital 4
28	RA2/AN2/Vref-	Analog Input 3	Digital I/O 3	Analog / Digital 3
29	RA1/AN1	Analog Input 2	Digital I/O 2	Analog / Digital 2
30	RA0/AN0	Analog Input 1	Digital I/O 1	Analog / Digital 1
31	Vss			
32	Vdd			
33	RA5/AN4/LVDIN	Analog Input 5	Digital I/O 5	Analog / Digital 5
34	RA4/T0CKI			
35	RC1/T1OSI/CCP2			
36	RC0/T1OSO/T13CLK	Digital I/O 14		
37	RC6/TX1/CK1			
38	RC7/RX1/DT1			
39	RJ4/BA0	Digital I/O 15		Digital I/O 15
40	RJ5/CE	Digital I/O 16		Digital I/O 16
41	RJ6/LB	Digital I/O 17		Digital I/O 17
42	RJ7/UB	Digital I/O 18		Digital I/O 18
43	RC2/CCP1			
44	RC3/SCK/SCL			
45	RC4/SDI/SDA			
46	RC5/SDO			
47	RB7/KBI3/PGD	Digital I/O 6	Interrupt 6	Interrupt 6
48	Vdd			
49	OSC1/CLKI			
50	OSC2/CLKO/RA6			
51	Vss			
52	RB6/KBI2/PGC	Digital I/O 5	Interrupt 5	Interrupt 5
53	RB5/KBI1/PGM	Digital I/O 4	Interrupt 4	Interrupt 4
54	RB4/KBI0	Digital I/O 3	Interrupt 3	Interrupt 3
55	RB3/INT3/CCP2	Digital I/O 2	Interrupt 2	Interrupt 2
56	RB2/INT2	Digital I/O 1	Interrupt 1	Interrupt 1
57	RB1/INT1			
58	RB0/INT0			
59	RJ3/WRH	Digital I/O 13		Digital I/O 13
60	RJ2/WRL	Digital I/O 12		Digital I/O 12
61	RJ1/OE	Digital I/O 11		Digital I/O 11
62	RJ0/ALE	Relay 8 Fwd		Relay 8 Fwd
63	RD7/PSP7/AD7	Relay 8 Rev		Relay 8 Rev
64	RD6/PSP6/AD6	Relay 7 Rev		Relay 7 Rev
65	RD5/PSP5/AD5	Relay 6 Rev	Solenoid 6	Relay 6 Rev
66	RD4/PSP4/AD4	Relay 5 Rev	Solenoid 5	Relay 5 Rev
67	RD3/PSP3/AD3	Relay 4 Rev	Solenoid 4	Relay 4 Rev
68	RD2/PSP2/AD2	Relay 3 Rev	Solenoid 3	Relay 3 Rev
69	RD1/PSP1/AD1	Relay 2 Rev	Solenoid 2	Relay 2 Rev
70	Vss			
71	Vdd			
72	RD0/PSP0/AD0	Relay 1 Rev	Solenoid 1	Relay 1 Rev
73	RE7/CCP2/AD15	PWM Output 13 (1)	PWM Output 1	Motor 1
74	RE6/AD14	Relay 7 Fwd		

PIC18F8722 Pin #	PIC18F8722 Pin Name	2006-2008 FRC-RC Pin Name
1	RH2/A18	Digital I/O 9
2	RH3/A19	Digital I/O 10
3	RE1/AD9/WR/P2C	Relay 2 Fwd
4	RE0/AD8/RD/P2D	Relay 1 Fwd
5	RG0/ECCP3/P3A	PWM Output 14 (1)
6	RG1/TX2/CK2	TTL Serial Tx
7	RG2/RX2/DT2	TTL Serial Rx
8	RG3/CCP4/P3D	PWM Output 15 (1)
9	RG5/MCLR/Vpp	
10	RG4/CCP5/P1D	PWM Output 16 (1)
11	Vss	
12	Vdd	
13	RF7/SS1	
14	RF6/AN11	Analog Input 12
15	RF5/AN10/CVref	Analog Input 11
16	RF4/AN9	Analog Input 10
17	RF3/AN8	Analog Input 9
18	RF2/AN7/C1OUT	Analog Input 8
19	RH7/AN15/P1B	Analog Input 16
20	RH6/AN14/P1C	Analog Input 15
21	RH5/AN13/PCB	Analog Input 14
22	RH4/AN12/P3C	Analog Input 13
23	RF1/AN6/C2OUT	Analog Input 7
24	RF0/AN5	Analog Input 6
25	Avdd	
26	Avss	
27	RA3/AN3/Vref+	Analog Input 4
28	RA2/AN2/Vref-	Analog Input 3
29	RA1/AN1	Analog Input 2
30	RA0/AN0	Analog Input 1
31	Vss	
32	Vdd	
33	RA5/AN4/LVDIN	Analog Input 5
34	RA4/T0CKI	
35	RC1/T1OSI/ECCP2/P2A	
36	RC0/T1OSO/T13CLKI	Digital I/O 14
37	RC6/TX1/CK1	
38	RC7/RX1/DT1	
39	RJ4/BA0	Digital I/O 15
40	RJ5/CE	Digital I/O 16
41	RJ6/LB	Digital I/O 17
42	RJ7/UB	Digital I/O 18
43	RC2/ECCP1/P1A	
44	RC3/SCK1/SCL1	
45	RC4/SDI1/SDA1	
46	RC5/SDO1	
47	RB7/KBI3/PGD	Digital I/O 6
48	Vdd	
49	OSC1/CLKI/RA7	
50	OSC2/CLKO/RA6	
51	Vss	
52	RB6/KBI2/PGC	Digital I/O 5
53	RB5/KBI1/PGM	Digital I/O 4
54	RB4/KBI0	Digital I/O 3
55	RB3/INT3/ECCP2/P2A	Digital I/O 2
56	RB2/INT2	Digital I/O 1
57	RB1/INT1	
58	RB0/INT0	
59	RJ3/WRH	Digital I/O 13
60	RJ2/WRL	Digital I/O 12
61	RJ1/OE	Digital I/O 11
62	RJ0/ALE	Relay 8 Fwd
63	RD7/AD7/PSP7/SS2	Relay 8 Rev
64	RD6/AD6/PSP6/SCK2/SCL2	Relay 7 Rev
65	RD5/AD5/PSP5/SDI2/SDA2	Relay 6 Rev
66	RD4/AD4/PSP4/SDO2	Relay 5 Rev
67	RD3/AD3/PSP3	Relay 4 Rev
68	RD2/AD2/PSP2	Relay 3 Rev
69	RD1/AD1/PSP1	Relay 2 Rev
70	Vss	
71	Vdd	
72	RD0/AD0/PSP0	Relay 1 Rev
73	RE7/AD15/ECCP2/P2A	PWM Output 13 (1)
74	RE6/AD14/P1B	Relay 7 Fwd

75	RE5/AD13	Relay 6 Fwd		
76	RE4/AD12	Relay 5 Fwd		
77	RE3/AD11	Relay 4 Fwd		Motor 8
78	RE2/CS/AD10	Relay 3 Fwd		Motor 7
79	RH0/A16	Digital I/O 7		
80	RH1/A17	Digital I/O 8		

75	RE5/AD13/P1C	Relay 6 Fwd		
76	RE4/AD12/P3B	Relay 5 Fwd		
77	RE3/AD11/P3C	Relay 4 Fwd		
78	RE2/AD10/CS/P2B	Relay 3 Fwd		
79	RH0/A16	Digital I/O 7		
80	RH1/A17	Digital I/O 8		

Note 1: This pin can only be used as an output.

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