

# Robobuilder Control Box IO MAP

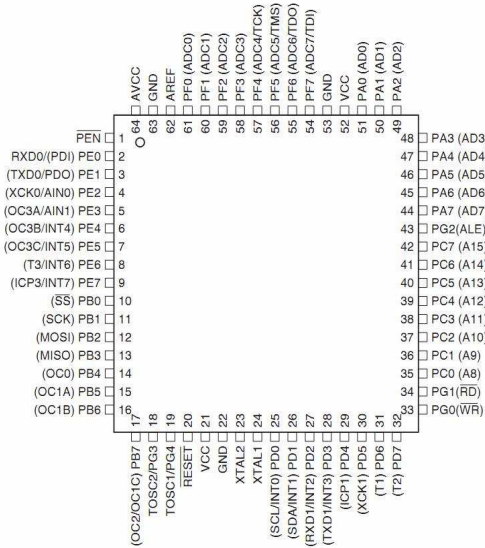
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## About this document

I/O map of the MCU in a robobuilder control box is listed below.  
Users can refer to this I/O map to make their own firmware.

## IO MAP



Pin Number	Pin Name	Direction	Description
1	PEN	X	Not Connected
2	(RXD0/PDI) PE0	I	Receive data from wCK or Sound IC (only for YNN)
3	(TXD0/PDO) PE1	O	Transmit data to wCK or Sound IC (only for YNN)
4	(XCK0/AIN0) PE2	X	Not Connected
5	(OC3A/AIN1) PE3	O	PWM signal for sound (only for YNN)
6	(OC3B/INT4) PE4	X	Not Connected
7	(OC3C/INT5) PE5	X	Not Connected
8	(T3/INT6) PE6	I	IR receiver signal (38kHz)
9	(ICP3/INT7) PE7	I	Not Connected
10	(SS) PB0	X	Not Connected
11	(SCK) PB1	O	ISP pin
12	(MOSI) PB2	O	Power pin for Serial EEPROM 24LC256T-I/SN (High : ON, Low : OFF)
13	(MISO) PB3	X	Not Connected
14	(OC0) PB4	O	Battery charging enable (High : Charger ON, Low : Charger OFF)
15	(OC1A) PB5	O	PSD(GP2Y0A21YK0F) sensor power enable (High : ON, Low : OFF)
16	(OC1B) PB6	O	Reset for Sound IC (High : Disabled, Low : Enabled)
17	(OC2/OC1C) PB7	X	Not Connected
18	TOSC2 / PG3	X	Not Connected
19	TOSC1 / PG4	X	Not Connected
25	(SCL/INT0) PD0	O	SCL (Serial EEPROM 24LC256T-I/SN)
26	(SDA/INT1) PD1	I/O	SDA (Serial EEPROM 24LC256T-I/SN)
27	(RXD1/INT2) PD2	I	Receive data from PC
28	(TXD1/INT3) PD3	O	Transmit data to PC
29	(ICP1) PD4	X	Not Connected
30	(XCK1) PD5	X	Not Connected
31	(T1) PD6	X	Not Connected
32	(T2) PD7	X	Not Connected
33	(WR) PG0	X	Not Connected
34	(RD) PG1	X	Not Connected
35	(A8) PC0	X	Not Connected
36	(A9) PC1	X	Not Connected
37	(A10) PC2	X	Not Connected
38	(A11) PC3	X	Not Connected
39	(A12) PC4	X	Not Connected
40	(A13) PC5	X	Not Connected
41	(A14) PC6	X	Not Connected
42	(A15) PC7	O	Power LED (Red) (Active Low)
43	(ALE) PG2	O	Power LED (Green) (Active Low)
44	(AD7) PA7	O	Error LED (Red) (Active Low)
45	(AD6) PA6	O	Run LED (Green) (Active Low)
46	(AD5) PA5	O	Run LED (Blue) (Active Low)
47	(AD4) PA4	O	PF2 LED (Orange) (Active Low)
48	(AD3) PA3	O	PF1 LED (Red) (Active Low)
49	(AD2) PA2	O	PF1 LED (Blue) (Active Low)
50	(AD1) PA1	I	PF2 switch (High : Not pressed, Low : Pressed)
51	(AD0) PA0	I	PF1 switch (High : Not pressed, Low : Pressed)
54	(ADC7/TDI) PF7	I	ISP pin
55	(ADC6/TDO) PF6	O	ISP pin
56	(ADC5/TMS) PF5	O	ISP pin
57	(ADC4/TCK) PF4	O	ISP pin
58	(ADC3) PF3	I	MIC OUT(0~5V)
59	(ADC2) PF2	I	GND
60	(ADC1) PF1	I	Power voltage (= Voltage of wCK x 560 / 1560)
61	(ADC0) PF0	I	PSD(GP2Y0A21YK0F) sensor signal (0~3.2V)