

Small\_robot\_PCB\_schematic

Part	Value	Place	Package	COST (RS)	Description
C7_0.1UF	.01uf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
C2_0.1UF	0.1uf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
C5_0.1UF	0.1uf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
C6_0.1UF	0.1uf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
C8_0.1UF	0.1uf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
C9_0.1UF	0.1uf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
R36_100K	100k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R11_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R13_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R15_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R17_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R19_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R35_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R37_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R5_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R7_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R9_10K	10k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
C3_10UF	10uf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
C4_10UF	10uf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
R1_1K	1k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R21_1K	1k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R23_1K	1k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R38_1K	1k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R41_1K	1k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R42_1K	1k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R2_22K	22k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
R3_22K	22k	CHIP COMPONENT	R1206	12	∫TOR, European symbo
C11_22PF	22pf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
C12_0.1PF	22pf	CHIP COMPONENT	C1206	12	∩ITOR, European symbo
R39_2K	2k	CHIP COMPONENT	R1206	12	∫TOR, European symbo

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R24_2K2	2k2	CHIP COMPONENT	R1206	12	5TOR, European symbol
R25_2K2	2k2	CHIP COMPONENT	R1206	12	5TOR, European symbol
R10_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R12_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R14_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R16_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R18_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R34_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R4_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R6_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R8_300E	300E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R20_330E	330E	CHIP COMPONENT	R1206	12	5TOR, European symbol
R22_330E	330E	CHIP COMPONENT	R1206	12	5TOR, European symbol
IC4	40106D	CHIP COMPONENT	SO14	12	5 SCHMITT TRIGGER
R32_4K7	4k7	CHIP COMPONENT	R1206	12	5TOR, European symbol
R33_4K7	4k7	CHIP COMPONENT	R1206	12	5TOR, European symbol
R40_7K	7k	CHIP COMPONENT	R1206	12	5TOR, European symbol
U2	ATMEGA16-16AU	CHIP COMPONENT	QFP80P1200X1200X120-44N	12	8-bit Microcontroller
LDIR_B1	blue	CHIP COMPONENT	CHIPLED_1206	12	LED
LDIR_F1	blue	CHIP COMPONENT	CHIPLED_1206	12	LED
RDIR_B1	blue	CHIP COMPONENT	CHIPLED_1206	12	LED
RDIR_F1	blue	CHIP COMPONENT	CHIPLED_1206	12	LED
LED10_GREEN	green	CHIP COMPONENT	CHIPLED_1206	12	LED
IC3	LM358D	CHIP COMPONENT	SO08	12	Also LM158; LM258; LM358
LED11_RED	red	CHIP COMPONENT	CHIPLED_1206	12	LED
LED1	white	CHIP COMPONENT	CHIPLED_1206	12	LED
LED2	yellow	CHIP COMPONENT	CHIPLED_1206	12	LED
LED3	yellow	CHIP COMPONENT	CHIPLED_1206	12	LED
C1_THROUGH HOLE	1000uf	GALA ELECTRONICS	C050-045X075	4	5TOR, European symbol
POT_10K	10k	GALA ELECTRONICS	RTRIMT93YA	10	Trimm resistor
IC2	7805DT	GALA ELECTRONICS	TO252	20	5 VOLTAGE REGULATOR

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JP5	battery input	GALA ELECTRONICS	1X02	10	PIN HEADER
Q2	BC548	GALA ELECTRONICS	TO92-EBC	10	NPN Transistor
Q3	BC548	GALA ELECTRONICS	TO92-EBC	10	NPN Transistor
SV3	extender	GALA ELECTRONICS	MA04-2	10	PIN HEADER
SV1	isp programming	GALA ELECTRONICS	MA05-2	10	PIN HEADER
BUZ1	KS-12065D03YA	GALA ELECTRONICS	BZ2-7.6-D12.0XH6.5MM	10	312010004
IC1	L293D	GALA ELECTRONICS	DIL16	40	DUAL 4 CHANNEL DRIVER
JP3	lcd port	GALA ELECTRONICS	1X16	10	PIN HEADER
JP2	left_motor	GALA ELECTRONICS	1X02	10	PIN HEADER
					U1 is a slotted opto isolator with an IR transmitter and a photodiode mounted on it. It performs Non-Contact Object Sensing
ENC_LEFT	MOC7811	GALA ELECTRONICS	THROUGH_HOLE_NORMAL	10	
					U2 is a slotted opto isolator, with an IR transmitter and a photodiode mounted on it. It performs Non-Contact Object Sensing
ENC_RIGHT	MOC7811	GALA ELECTRONICS	THROUGH_HOLE_NORMAL	10	
JP9	reset switch	GALA ELECTRONICS	JP1	10	JUMPER
JP1	right_motor	GALA ELECTRONICS	1X02	10	PIN HEADER
IR1		GALA ELECTRONICS	LED5MM	1	LED
IR14		GALA ELECTRONICS	LED5MM	1	LED
IR15		GALA ELECTRONICS	LED5MM	1	LED
IR16		GALA ELECTRONICS	LED5MM	1	LED
IR17		GALA ELECTRONICS	LED5MM	1	LED
IR18		GALA ELECTRONICS	LED5MM	1	LED
IR19		GALA ELECTRONICS	LED5MM	1	LED
IR2		GALA ELECTRONICS	LED5MM	1	LED
IR20		GALA ELECTRONICS	LED5MM	1	LED
IR21		GALA ELECTRONICS	LED5MM	1	LED
IR22		GALA ELECTRONICS	LED5MM	1	LED

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IR3		GALA ELECTRONICS	LED5MM	1	LED
IR5		GALA ELECTRONICS	LED5MM	1	LED
IR6		GALA ELECTRONICS	LED5MM	1	LED
IR7		GALA ELECTRONICS	LED5MM	1	LED
IR8		GALA ELECTRONICS	LED5MM	1	LED
LCD		GALA ELECTRONICS		120	
Q1		GALA ELECTRONICS	Q	5	CRYSTAL
BO MOTOR		GALA ELECTRONICS	2	70	
CASTER WHEEL		GALA ELECTRONICS	2	20	
L – CLAMPS		GALA ELECTRONICS	2	20	
JP8	battery switch	NIL	JP1		JUMPER
JP6	buzzer charged	NIL	JP1		JUMPER
JP7	buzzer discharged	NIL	JP1		JUMPER
JP4	lcd display	NIL	JP1		JUMPER
				<b>COST PER BOT</b>	1141
				<b>TOTAL COST</b>	5705

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