

ROBODog

Bill of Materials

Radu Motisan , November 2013

Version 1.0

A. ROBOT BOARD

Index	Name	Quantity	Comments
1	Lynxmotion chassis A4WD1	1	
2	Geared motor 200RPM 37mm HN-GH12-2217	4	
3	Dual HBRIDGE (B)	1	
4	12V Battery 2800mAh	1	
5	2x16 frontal LCD	1	
6	UART HC-5 Bluetooth module	1	
7	White frontal LED	6	
8	Red back position LED	8	
9	Frontal Sharp 2y0a sensor	1	
10	Microcontroller Board containing:	1	Atmega328p, 16Mhz crystal
11	atmega328p	1	
12	16Mhz crystal	1	
13	74HCT164	1	
14	5V Linear regulator 7805	1	
15	Led on/off power transistor MJE3055	1	
16	1KO resistor for frontal/position leds	10	
17	220uF 25V capacitor	2	
18	22pF capacitor	2	
19	100nF capacitor	2	
20	red board led	1	
21			
22			
23			
24			
25			

B. DUAL HBRIDGE

Index	Name	Quantity	Comments
1	MJE3055 transistor	4	
2	MJE2955 transistor	4	
3	2n5551 transistor	4	
4	470 resistor	4	
5	1K resistor	4	
6	1n4004 diode	8	
7	Jumpers		See Eagle schematic

C. ULTRASONIC REMOTE CONTROL

Index	Name	Quantity	Comments
1	556 dual timer	1	
2	Momentary switch	1	
3	5K6 resistor	1	
4	1K resistor	2	
5	10K resistor	2	
6	1n4148 diode	1	
7	100nF capacitor	1	
8	1nF capacitor	1	
9	10K pot	1	
10	47uF capacitor	1	
11	2n3904 transistor	2	
12	2n3906 transistor	1	

all capacitors are 16V rated, unless otherwise specified

D. ULTRASONIC RECEIVERS - 5 UNITS NEEDED, table shows quantities for one receiver

Index	Name	Quantity	Comments
1	Ultrasonic transducer	1	
2	220K resistor	1	
3	680K resistor	1	
4	47K resistor	1	

5	5K6 resistor	1	
6	100K resistor	1	
7	10K resistor	1	
8	1n4148 diode	1	
9	BC548 transistor	1	
10	47nF/16V capacitor	1	
11	100nF/16V capacitor	1	
12	100uF/25V capacitor	1	
13	3 pins 2.5 header	1	see schematic