

Sumo Bot Parts List

Quantity	Value	Description	Manufacturer	Part Number	Digi-Key Part Number
4	15pF	Capacitor			
1	3.3 uF - Tant - Polarized	Capacitor			
2	0.1uF	Capacitor			
2	47uF	Capacitor			
2	220uF Low ESR	Low ESR Capacitor			
1	470uF	Capacitor			
2	10R	Resistor			
2	47R	Resistor			
2	120R	Resistor			
4	220R	Resistor			
1	470R	Resistor			
1	1K	Resistor			
1	2K	Resistor			
4	10K	Resistor			
1	500R	Potentiometer			
2	10K	Potentiometer			
1	1mH	Inductor			
2		Red LED	Mode	55-552-0	
1		Switch	Omron	B3F-1000	SW400-ND
1	20MHz	20MHz Crystal (Low Profile - HC/49US)	ECS	ECS-200-20-4	X439-ND
1		NPN Bipolar Transistor	Fairchild	2N3904	2N3904D26ZCT-ND
2		Infrared LED	Panasonic	LNA2904L	LNA2904L-ND
1		1A Low-Dropout Regulator	National Semiconductor	LM2940CT-5.0	
1		Line-Powered RS-232 Transceiver Chip	Dallas/Maxim	DS275	DS275-ND
1		Push-Pull Four Channel Driver With Diode	ST Microelectronics	L293	497-2936-5-ND
2		Reflective object sensor	Fairchild	QRD1114	QRD1114-ND
2		40kHz IR Detector	Sharp	GP1UD26XK	425-1119-ND
1		Microcontroller	Microchip	PIC16F876A-I/SP	PIC16F876A-I/SP-ND
2		1/2" Length Heatshrink Tubing (3/16" diameter)			
1		AA Battery Holder (4 batteries)	Keystone Electronics	2478	2478K-ND
4		AA Batteries			
1		Shorting Jumper	Mode Electronics	36-100-0	
1		Male Header, 2-Pin, Right Angle	Mode Electronics	36-340G-0	
2		Male Header, 5-Pin, Dual Row (Optional)	Mode Electronics	36-280G-0	
1		DB9 Connector, Female, Vertical, PCB Mounts	Mode Electronics	30-320-0	
1		8 pin DIP socket	Mode Electronics	39-008-0	
1		16 pin DIP socket	Mode Electronics	39-016-0	
1		28 pin DIP socket (narrow - 300mil)	Mode Electronics	39-028-0	
1		Aluminum Robot Chassis	Camosun College		
1		Printed Circuit Board	Camosun College		
2		36mm Truck Tires	Tamiya	70101*250	
1		Twin motor gearbox kit (with motors)	Tamiya	70097**700	
5		4-40 nut			
1		4-40 split washer			
2		4-40 1/4" screw			
2		4-40 1/2" screw			
1		4-40 3/4" screw			
2		4-40 1/2" nylon hex standoff (Female to Female)	Keystone Electronics	1902C	1902CK-ND
2		4-40 1.25" nylon standoff (Male to Female)	Keystone Electronics	4808	4808K-ND
1		Velcro (3/4" x 2")			
2		Double-sided tape (1/4" square)			
1		10" length of electrical tape			
2		1/8" length of 18 gauge wire casing			
1		6" length of 4 conductor ribbon cable (brn, red, org, yel)			