

ITEM	Quantity	Description
Ball Caster Kit	1	Pololu
Breadboard, Mini	1	
Buzzer	1	Two 20cm wires attached
Cable, USB	1	
Capacitor, 0.1 μ F	1	
Capacitor, 1 μ F	1	
Controller, Motor	1	Pololu, DC powered
Double Gearbox Kit	1	Tamiya (boxed)
LED Light, Standard	4	
LED Light, Tri-color	1	Four 20cm wires attached
Mount, Ball Caster	1	Acrylic
Mount, LED Retaining (2 pieces)	5	Black plastic
Mount, Sensor, Ultrasonic	1	Acrylic
Mount, STEM Board	1	Acrylic
Mounting Plate, Socket, Battery	1	Acrylic
Nut, 0-80	4	For ultrasonic sensor mounting
Nut, 4-40	12	
Nut, Power Switch	2	For power switch mounting
OPAMP, LM358	1	
Pi-Bot Chassis	1	Acrylic
Power Switch, On-Off	1	Two 20cm wires attached
Resistor, 0.1 Ω 1/4W 1%	1	
Resistor, 0.22 Ω 1/4W 1%	1	
Resistor, 100K Ω 1/4W	2	
Resistor, 100 Ω 1/4W	2	
Resistor, 10K Ω 1/4W	3	
Resistor, 1K Ω 1/4W	2	
Resistor, 1M Ω 1/4W	2	
Resistor, 220 Ω 1/4W	1	
Resistor, 330 Ω 1/4W	6	
Screw, 0-80 x 3/8" Round Phillip	4	For ultrasonic sensor mounting
Screw, 4-40 x 1/2" Round Phillip	12	
Screw, 4-40 x 3/8" Flat Phillip	4	For gearbox mounting
Screw, 4-40 x 3/8" Round Phillip	4	
Screwdriver, Phillip	1	
Sensor, Tracking, HY Studio	1	
Sensor, Ultrasonic, HC-SR04	1	
Socket, Batteries, 1.5V	1	Connects three 1.5V AA batteries
Socket, Battery, 9V	1	Connects one 9V battery
Spacer, Guide Plate	4	Acrylic
Sports Tire Set	1	Tamiya (boxed)
Standoff, Nylon 4-40 x 1"	6	
Standoff, Nylon 4-40 x 3/4"	2	
STEM Board	1	Compatible with Arduino UNO R3 microcontroller
Transistor, 2N3094	1	
Velcro, Double Sided	2	For mounting 1.5V battery socket to mounting plate
Washer, Locking, Power Switch	1	For power switch mounting
Washer, Power Switch	1	For power switch mounting

Wire, Jumper 20cm Female – Male	4	
Wire, Jumper 20cm Male – Male	20	
Wire, Jumper 30cm Female – Male	6	
Wire, Motor	4	With spade terminal
Wire, Special, 6cm	1	With eyelet terminal