

****Prices are in \$ USD as of January 2017**

Item #	Component	Qty	Manufacturer	Distributor	Unit Price (\$ USD)	Total Price (\$ USD)
1	Arduino Uno R3	1	Arduino.org	Amazon	18.44	18.44
2	Arduino Motor Shield R3	1	Arduino.org	Amazon	33.49	33.49
3	DFRobot 2WD miniQ Robot Platform	1	DFRobot	Amazon	39.35	39.35
4	Hilitchi 120pcs M3 Male Female Brass Spacer Standoff Screw Nut Assortment Kit (Brass M3)	1	Hilitchi	Amazon	10.89	10.89
5	Parallax PING Ultrasonic Sensor	1	Parallax	Amazon	29.95	29.95
6	DIYmall Sharp IR Sensor GP2Y0A21YK0F Measuring Detecting Distance 10 to 80cm with Cable for Arduino	1	Sharp	Amazon	9.90	9.90
7	Tinksky 10pcs 20cm Male to Male Quadcopter Servo Extension Lead Wires for Futaba JR Receiver (used between PING sensor and motor shield)	1	Tinksky	Amazon	6.69	6.69
8	5Pcs 9V Hard Shell Battery Clip with Center Positive 5.5mm x 2.1mm Male DC Barrel Plug	1	SCS Enterprises	Amazon	9.99	9.99
9	4 AA Battery Pack	1	Various	Amazon	3.50	3.50
9	TowerPro SG90 Micro Servo 4 Pack	1	Tower Pro	Amazon	7.99	7.99
10	DFRobot Upper Deck for MiniQ	2	DFRobot	Amazon	6.99	13.98
11	Rocker Switch (Digikey P/N: SW322-ND / MFR P/N: GRS-4011-0068)	1	CW Industries	Digikey	1.03	1.03
12	18-22 AWG Wire Spool (motor shield Vin+ to motor switch terminal)	1	Various	Amazon / Local Hardware Store	5.00	5.00
13	Velcro Oval Pack (P/N: 91000)	1	Velcro	Amazon / Local Hardware Store	3.00	3.00
14	Electrical Tape Roll (3/4 inch width)	1	Various	Amazon	4.00	4.00
15	Micro-JST Male to Standard Male Servo Cable (Micro-JST-M-regular-M), 28 AWG Lite Option, 8 inch Length	1	RC-Connectors.com	N/A	3.99	3.99
16	Aluminum Multi-Purpose Sensor Bracket (MPSH-01)	1	Lynxmotion	Robotshop.com	4.95	4.95
17	9V Battery Pack	1	Various	Amazon / Local Store	4.00	4.00
18	DFRobot GP2D12 Sensor Mounting Bracket (Robotshop: RB-Dfr-126)	1	DFRobot / Multiple vendors Amazon	Robotshop.com / Amazon	5.00	5.00
18	Insulated Female Disconnect Terminal Pack (16-14 AWG)	1	Various	Local Hardware Store	3.00	3.00
19	#4-40 x 1/2 inch Screw and Nut Pack	1	Various	Local Hardware Store	3.00	3.00
						221.14
						Total
Item #	Tools					
1	Set of Jeweler Screwdrivers (Phillips and Flathead)					
2	Razor (for cutting motor shield Vin trace)					
3	Jeweler's Magnifying Glasses					
4	Needle Nose Pliers (for pressing motor bracket nut into position)					
5	Crimping Tool					
6	Electric Drill					
7	3/32 inch Drill Bit (to enlarge SG-90 mounting holes)					
8	1/16 inch Drill Bit (to enlarge servo horn mounting holes)					