

## 2012 BEST Returnable Kit List

Qty	Item Description	Required/Optional	Manufacturer/Source	Part Number
	<b>BEST Control System Kit</b>		VEX Robotics	270-1605
1	Cortex Microcontroller	Required	VEX Robotics	278-1604
1	VEXnet Joystick	Required	VEX Robotics	276-2194
2	VEXnet 802.11 Key	Required	VEX Robotics	276-2245
1	VEXnet Backup Battery Holder	Required	VEX Robotics	276-2243
4	Motor Controller 7.2V 4A	Required	VEX Robotics	276-2193
2	Large Motor	Required	VEX Robotics	276-1611
2	Small Motor	Required	VEX Robotics	276-1610
2	7.2 V 3000 mAh NiMH battery - modified w/ powerpole connectors	Required <sup>1</sup>	VEX Robotics	276-1456
1	Cortex Battery Adapter (attached to Cortex)	Required	None - Hub Assembly Req'd	n/a
1	Charger Adapter (attached to charger)	Required <sup>2</sup>	None - Hub Assembly Req'd	n/a
8	Screw Terminal Sensor Interface Cable (black and white wires)	Required	VEX Robotics	276-1734
4	Screw Terminal Motor Interface Cable (red and black wires)	Required	VEX Robotics	276-1608
4	Servo Power Adapter Cable	Required	VEX Robotics	276-2195
1	Smart Battery Charger & power cord	Required <sup>2</sup>	VEX Robotics	276-1445, 276-1500
1	8-bay AAA Smart Battery Charger & power cord	Required <sup>2</sup>	VEX Robotics	276-1622
6	AAA NiMH Rechargeable Batteries (installed in Joystick)	Required	VEX Robotics	276-1696
1	USB A-A Cable	Required <sup>2</sup>	VEX Robotics	276-1403
1	VEX Programming Hardware Kit	Optional <sup>2</sup>	VEX Robotics	276-2186
	<b>BEST Servo Kit</b>		VEX Robotics	270-1682
4	Futaba 3003/3004 Servo	Required	Tower Hobbies	LXH288 / LXZV41
4	servo horn screw	Required	Tower Hobbies	FUTM2260 (10 pack)
1	large round servo horn	Required	Tower Hobbies	LXH362
2	4-arm servo horn	Required	Tower Hobbies	LXH365
2	6-arm servo horn	Required	Tower Hobbies	LXH363
1	8" servo extension wire	Required	Tower Hobbies	LXH446
2	24" servo extension wire	Required	Tower Hobbies	LXL295
2	40" servo extension wire	Required	Dymond Modelsport	10415
16	rubber grommet	Optional	Tower Hobbies	FUTM2310 (20 pack)
16	brass spacer	Optional	Tower Hobbies	FUTM3650 (20 pack)
16	servo mounting screw	Optional	Tower Hobbies	FUTM2250 (10 pack)
	<b>BEST Belt &amp; Pulley Kit</b>		VEX Robotics	270-1683
1	3/16 bore, 18 groove, (small) plastic drive pulley with metal insert	Required	Stock Drive Products	A 6T16-018DF2506
1	3/16 bore, 18 groove, (small) plastic pulley	Required	Stock Drive Products	A 6M16-018DF2506
1	1/4 Bore 130 groove, (large) plastic drive pulley with metal insert	Required	Stock Drive Products	A 6Z16-130DF2508
1	180 Groove, 0.080 pitch, 1/4 wide belt	Required	Stock Drive Products	A 6Z16-180025
1	0.080 pitch, 1/4 wide belt stock, 3 ft long	Required	Stock Drive Products	A 6Z16-C025
1	3/16 dia, 3/4 long shoulder screw w/ 8-32 thread	Required	Stock Drive Products	A 9X25-0624
4	R4AZZ Ball Bearing (0.25 ID x 0.75 OD x 0.28 wide)	Required	National Precision	R4AZZ
	<b>Hub Provided</b>			
1	spare (replacement) servo horn screw	Required	Tower Hobbies	FUTM2260 (10 pack)
1	rotary potentiometer, linear, 10K ohm, 10 turn	Required	Bourns	3590S-2-103L
2	small round servo horn	Optional	Tower Hobbies	LXH364
1	18" (or less) USB extension cable (used between Cortex and WIFI key)	Optional	monoprice	5431
any	Containers, bags, boxes	Required <sup>2</sup>	Hub Supplied	

<sup>1</sup> Only one battery can be used on the robot at any given time.

<sup>2</sup> These items cannot be used on the robot.