Part	Quantity	Cost Per Unit	Vendor/Link	Notes
Redcat Racing Blackout SC 1/10 Scale Electric Short Course Truck	1	$165.99	https://www.amazon.com/Redcat-Racing-Blackout-Waterproof-Electronics/dp/B00VRNR9KS/	
Servo 2Kg, Metal Arm	1	$16.66	https://www.amazon.com/gp/product/B01MU7TQV8	
Sensorless Brushless Motor	1	$28.99	https://www.amazon.com/gp/product/B08J25QYH6/	Sensored BLDC motor also available for $20 more. Alternatively, can buy chassis with BLDC already installed (Redcat Blacout SC Pro version)
VESC	1	$76.99	https://www.amazon.com/HGLRC-FLIPSKY-SK8-ESC-Electric-Skateboard-EScooter/dp/B07GFB55NV	
4mm Bullet Connectors	1	$8.99	https://www.amazon.com/HRB-Battery-Banana-Bullet-Connector/dp/B06XS79JT3	This only needs to be purchased if the VESC does not already have 4mm bullet connectors installed on its motor wires. Note that installation will require soldering.
Heat Shrink	1	$3.26	https://www.digikey.com/en/products/detail/alpha-wire/F221V1-4-BK103/3718551	(Can purchase additional colors if desired)
Solderless Wire Connector	1	$8.69	https://www.amazon.com/Connectors-Insulated-Waterproof-Automotive-Electrical/dp/B07G4DVT67	
3 pin Through Hole Male Header	1	$0.19	https://www.digikey.com/products/en?keywords=952-2263-nd	
USB Mini Cable 1ft	1	$4.89	https://www.amazon.com/StarTech-com-30cm-ft-Mini-Cable/dp/B002L5U7N2	
Jetson Nano	1	$120	https://www.amazon.com/Seeed-Studio-NVIDIA-Jetson-Developer/dp/B07SGBHDCZ/	
Micro SD Card	1	$28.90	https://www.amazon.com/gp/product/B06XWZWYVP	

WiFi & Bluetooth Card	1	$24.99	https://www.amazon.com/gp/product/B01MZA1AB2	
WiFi Antennae	1	$7.99	https://www.amazon.com/Pair-53cm-20-86in-IPEX4-Antennas/dp/B07K68NHVH	
Power Barrel Connector 5.5x2.1 mm	1	$4.33	https://www.digikey.com/product-detail/en/tensility-international-corp/10-01780/839-1246-ND/5638256	
Pin Jumper	1	$0.10	https://www.digikey.com/product-detail/en/sullins-connector-solutions/STC02SYAN/S9000-ND/76372	
Buck Converter	1	$9.99	https://www.amazon.com/gp/product/B06XRDV49T	
Battery Connector 4mm	1	$9.99	https://www.amazon.com/OliRC-Bullet-Banana-Connector-Adapter/dp/B07T6J317B https://www.amazon.com/gp/product/B01E3999FA	
5000mAH NiMH battery	1	$21.99	https://www.amazon.com/Flylinktech-5000mAh-NiMH-Rechargeable-Associated/dp/B00WMC4WBM	
Tamiya Battery Connector	1	$8.80	https://www.amazon.com/gp/product/B0746GQF56	
Velcro	1	$2.98	https://www.amazon.com/VELCRO-Brand-Fasteners-Perfect-General/dp/B000TGSPV6	Use to hold battery in place
Bluetooth Playstation 4 Controller	1	$43.95	https://www.amazon.com/gp/product/B01LWVX2RG	
Zip Ties	1	$4.99	https://www.amazon.com/gp/product/B01018DB2E	
Medium Strength Thread Locker	1	$7.29	https://www.amazon.com/Permatex-24200-Medium-Strength-Threadlocker/dp/B0002UEMZ2	
Super Glue	1	$3.97	https://www.amazon.com/Loctite-Ultra-Control-4-Gram-1363589/dp/B003Y49R7G	
Electrical Tape	1	$3.98	https://www.amazon.com/Scotch-Super-Vinyl-Electrical-Tape/dp/B00004WCCL	
M3 Flathead Screw 40mm	1	$3.83 / pack of 25	https://www.mcmaster.com/92125a150	
M3 Nylon Washers	1	$3.60 / pack of 100	https://www.mcmaster.com/95610a530	
M2.5 Pan Head Screws 10mm	1	$4.66 / pack of 100	https://www.mcmaster.com/92005a071	

Part	Quantity	Cost Per Unit	Vendor/Link	Notes
M2.5 Flat Head Screws 10mm	1	$4.19 / pack of 25	https://www.mcmaster.com/92010a020	
M2.5 Hex Nut	1	$2.22 / pack of 100	https://www.mcmaster.com/90591a270	
Power Supply (5V 4Amp)	1	$15.99	https://www.amazon.com/ALITOVE-Converter-5-5x2-1mm-100V-240V-Security/dp/B078RT3ZPS	Power the Jetson Nano without using battery if desired
Redcat Racing Fast Charger	1	$20.44	https://www.amazon.com/gp/product/B015ZQEID8	

Sensor Options

Part	Quantity	Cost Per Unit	Vendor/Link	Notes
YDLidar	1	$99	https://www.robotshop.com/en/ydlidar-x4-360-laser-scanner.html	
USB Micro Splitter 1ft	1	$9.99	https://www.amazon.com/gp/product/B0179OXY9I	
Realsense D435i	1	$199	https://store.intelrealsense.com/buy-intel-realsense-depth-camera-d435i.html	
USB 3.0 Type C 1ft	1	$13.47	https://www.amazon.com/AmazonBasics-Double-Braided-Nylon-Type-C/dp/B07D7SH77V	Optional shorter cable. D435i comes with a suitable but longer cable.
M3 Pan Head Screw 14mm	1	$8.96	https://www.mcmaster.com/92000a124	
Realsense T265	1	$199	https://store.intelrealsense.com/buy-intel-realsense-tracking-camera-t265.html	
M3 Pan Head Screw 14mm	1	$8.96	https://www.mcmaster.com/92000a124	

Optional Items

Part	Quantity	Cost Per Unit	Vendor/Link	Notes
Push Button	1	$10.99	https://www.vexrobotics.com/276-4858.html	Detects when the front bumper has

				made contact with an object
Female to Female Jumper Cable	1	$1.95 per pack of 20	https://www.digikey.com/product-detail/en/sparkfun-electronics/PRT-12796/1568-1513-ND/5993861	
1K Ohm Resistor	1	$0.10	https://www.digikey.com/product-detail/en/stackpole-electronics-inc/CF14JT1K00/CF14JT1K00CT-ND/1830350	
1/8" Heat Shrink	1	$1.41	https://www.digikey.com/product-detail/en/alpha-wire/F221B1-8-BK100/A018B-4-ND/281671x	
20mm M2.5 Pan Head Screws	1	$5.92 per pack of 100	https://www.mcmaster.com/92000a111	