

Part	Quantity	Cost Per Unit	Vendor/Link	Notes
Redcat Racing Blackout SC 1/10 Scale Electric Short Course Truck	1	\$169.99	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	\$30.99	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	\$104.99	https://www.amazon.com/HGLRC-FLIPSKY-SK8-ESC-Electric-Skateboard-EScooter/dp/B07GFB55NV	
4mm Bullet Connectors	1	\$8.99	https://www.amazon.com/gp/product/B07CSQH2QC	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	\$2.96	https://www.digikey.com/en/products/detail/alpha-wire/F221B1-4-BK100/281675	(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/en/products/detail/3m/961103-6804-AR/2071945	
Jetson Nano	1	\$99	https://www.sparkfun.com/products/16271 https://www.amazon.com/NVIDIA-Jetson-Nano-Developer-945-13450-0000-100/dp/B084DSDDL7 https://www.dfrobot.com/product-1909.html	

Micro SD Card	1	\$28.95	https://www.amazon.com/gp/product/B06XWZWYVP	
WiFi & Bluetooth Card	1	\$20.98	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	\$4.30	https://www.digikey.com/en/products/detail/tensility-international-corp/10-01780/5638256 https://www.digikey.com/en/products/detail/tensility-international-corp/10-02224/6412266	
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	\$17.99	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	\$6.01	https://www.amazon.com/VELCRO-Brand-Fasteners-Perfect-General/dp/B000TGSPV6	Use to hold battery in place
Bluetooth Playstation 4 Controller	1	\$29.99	https://www.amazon.com/YCCTEAM-Wireless-Controller-1000mAh-Rechargeable-dp-B08CX9W8BN/dp/B08CX9W8BN	Note: We have not tested the latest version of this controller, but the previous version worked
Zip Ties	1	\$4.99	https://www.amazon.com/gp/product/B01018DB2E	
Medium Strength Thread Locker	1	\$5.97	https://www.amazon.com/Permatex-24200-Medium-Strength-Threadlocker/dp/B0002UEMZZ	
Super Glue	1	\$3.97	https://www.amazon.com/dp/B00ELV2D0Y https://www.amazon.com/Loctite-Ultra-Control-4-Gram-1363589/dp/B003Y49R7G	
Electrical Tape	1	\$5.60	https://www.amazon.com/dp/B001ULCB1O/ 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	
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	\$16.49	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	\$20.26	https://www.amazon.com/gp/product/B015ZQEID8	

Sensor Options (Only choose one Realsense option)

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YDLidar	1	\$99	https://www.amazon.com/dp/B07DBYHJVQ/ https://www.robotshop.com/en/ydlidar-x4-360-laser-scanner.html	
USB Micro Splitter 1ft	1	\$6.00	https://www.amazon.com/dp/B083JXZYH/ https://www.amazon.com/gp/product/B0179OXY9I	
USB Micro to USB C Adapter	1	\$6.99	https://www.amazon.com/Adapter-Aluminum-Connector-Charging-Compatible/dp/B07G54XXZZ	
Realsense D435(i)	1	\$300-\$350	D435i https://store.intelrealsense.com/buy-intel-realsense-depth-camera-d435i.html https://www.digikey.com/en/products/detail/intel-realsense/82635D435IDKMP/14301643 D435 (no IMU) https://www.digikey.com/en/products/detail/intel-realsense/82635AWGDVKPMP/9926003	
USB 3.0 Type C 1ft	1	\$12.31	https://www.amazon.com/AmazonBasics-Double-Braided-Nylon-Type-C/dp/B07D7SH77V	

M3 Pan Head Screw 6mm	1	\$4.34	https://www.mcmaster.com/92005A116/	
Realsense D455	1	\$412.50	https://store.intelrealsense.com/buy-intel-realsense-depth-camera-d455.html https://www.digikey.com/en/products/detail/intel-realsense/82635DSD455MP/12429609	
USB 3.0 Type C 1ft	1	\$12.31	https://www.amazon.com/AmazonBasics-Double-Braided-Nylon-Type-C/dp/B07D7SH77V	
M4 Pan Head Screw 6mm	1	\$8.21	https://www.mcmaster.com/94387A239/	

Optional Items

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Push Button	1	\$10.99	https://www.vexrobotics.com/276-2159.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/en/products/detail/stackpole-electronics-inc/CFM14JT1K00/2617685	
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	