VEX IQ Challenge Legal Parts

2019-2020

This document is a supplement to rule <R6> of the VEX IQ Challenge Game Manual, which governs what VEX IQ parts are legal for use in the VEX IQ Challenge. Rule <R6> is quoted below for reference:

<R6> Robots may be built ONLY from Official *Robot* Components from the VEX IQ product line, unless otherwise specifically noted within these rules.

a. During inspections if there is a question about whether something is an official VEX IQ component, a team will be required to provide documentation to an inspector that proves the component's source. Such types of documentation include receipts, part numbers, or other printed documentation.

b. Only the VEX IQ components specifically designed for use in *Robot* construction are allowed. Using additional components outside their typical purpose is against the intent of the rule (i.e. please don't try using VEX IQ apparel, team or event support materials, packaging, field elements or other non-robot products on a VEX IQ Challenge *Robot*).

c. Products from the VEX EDR or VEXpro product line cannot be used for *Robot* construction. Products from the VEX product line that are also cross listed as part of the VEX IQ product line are legal.

d. Mechanical/structural components, aside from those excluded below, from the VEX Robotics by HEXBUG product line are legal for *Robot* construction. However, electrical components from the VEX Robotics by HEXBUG product line are illegal for *Robot* construction.

The following mechanical and structural components from the VEX Robotics by HEXBUG product line are excluded:

i. All rubber bands

e. Official Robotics Components from the VEX IQ product line that have been discontinued are still legal for *Robot* use. However, teams must be aware of <R6a>.

f. 3D printed versions of VEX IQ components are not legal for use.

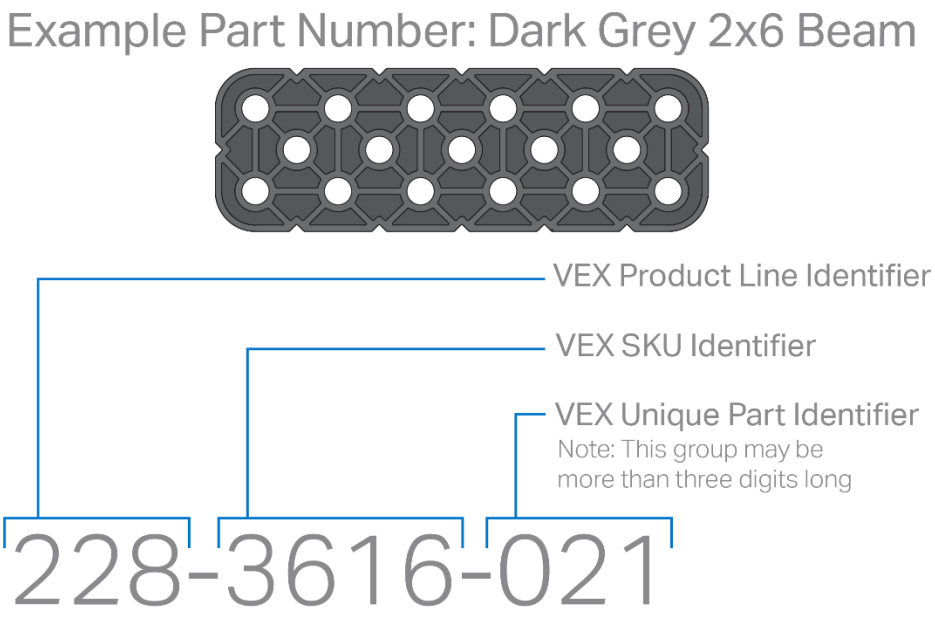
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This document is current as of July 16, 2019 and is subject to change whenever new VEX IQ, VEX Robotics by HEXBUG, or other legal components are released. The most recent version of this document can always be found at www.vexrobotics.com. Questions concerning part legality can be posted in the official VEX IQ Challenge Q&A Forum, found at www.vexiqforum.com.

Note: Because VEX IQ parts come in many colors, any colors depicted in the renderings below may not necessarily reflect the colors of the final physical products.

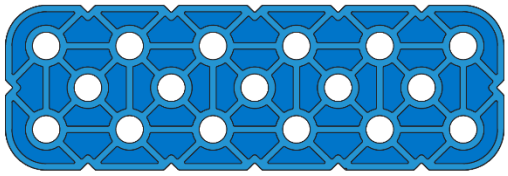
VEX IQ Part Number Information

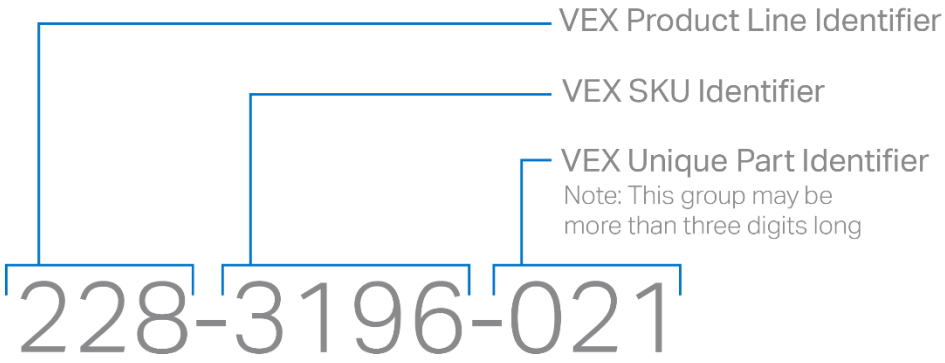


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VEX IQ Challenge 2019-2020 Legal Parts

Example Part Number: Blue 2x6 Beam





Where to Find Part Identifier

Embossed part numbers can be found on larger VEX IQ parts. Some examples of their locations are pictured below.

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VEX IQ Challenge 2019-2020 Legal Parts

Beams



Corner Connectors



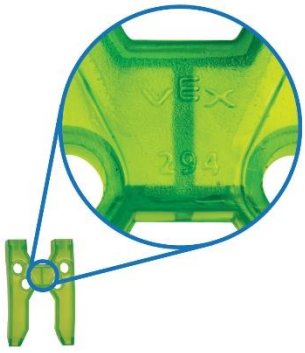
Wheels



Gears/Sprockets/Pulleys



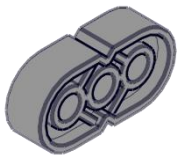
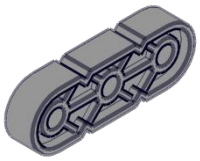
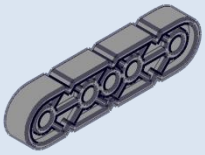
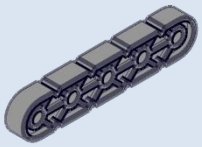
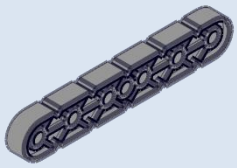
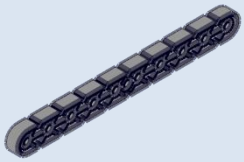
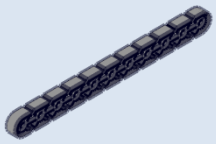
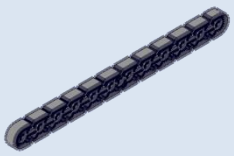
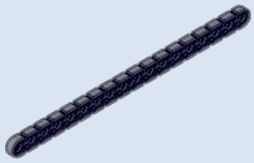
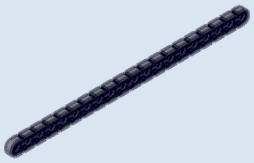
VEX Robotics by HEXBUG



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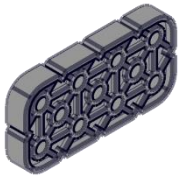
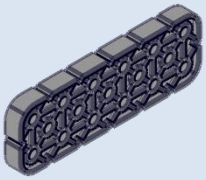
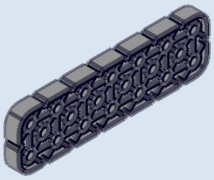
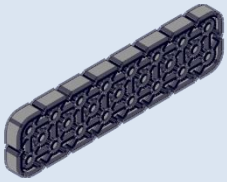
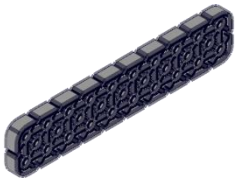
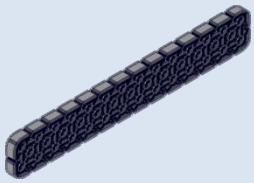
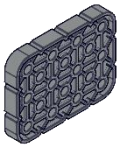
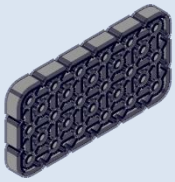
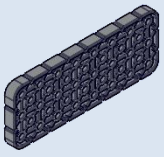
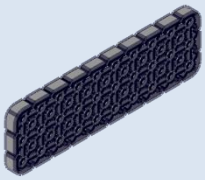
VEX IQ Challenge 2019-2020 Legal Parts

Structure

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228-2500-003  1x4 Beam	228-2500-004  1x5 Beam	228-2500-005  1x6 Beam
228-2500-006  1x7 Beam	228-2500-007  1x8 Beam	228-2500-008  1x9 Beam
228-2500-009  1x10 Beam	228-2500-010  1x11 Beam	228-2500-011  1x12 Beam
228-2500-012  1x13 Beam	228-2500-013  1x14 Beam	228-2500-014  1x16 Beam
228-2500-015  1x18 Beam	228-2500-016  1x20 Beam	228-2500-017  2x2 Beam

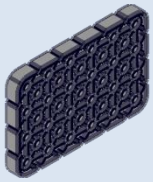
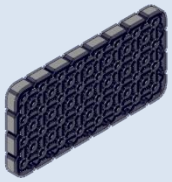
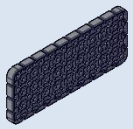
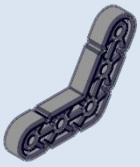
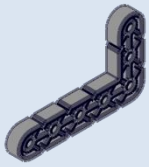
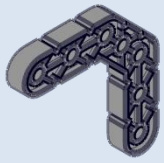
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228-2500-024  2x9 Beam	228-2500-025  2x10 Beam	228-2500-026  2x12 Beam
228-2500-027  2x14 Beam	228-2500-028  2x16 Beam	228-2500-029  2x18 Beam
228-2500-030  2x20 Beam	228-2500-031  3x3 Plate	228-2500-032  3x4 Plate
228-2500-034  3x6 Plate	228-2500-035  3x8 Plate	228-2500-036  3x10 Plate

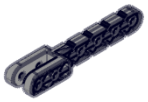
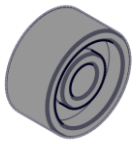
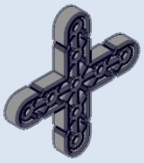
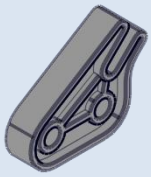
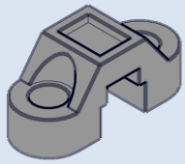
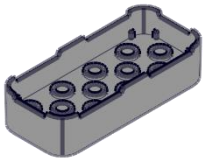
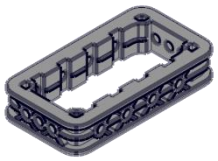
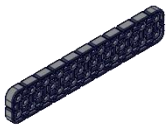
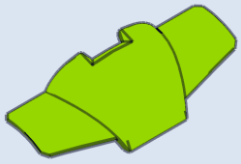
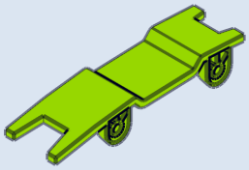
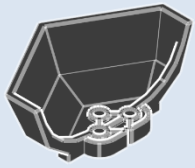
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228-2500-045  4x12 Plate	228-2500-046  4x16 Plate	228-2500-051  6x12 Plate
228-2500-059  12x12 Plate	228-2500-144  3x4 Tee Beam	228-2500-145  2x3 Right Angle Beam
228-2500-146  3x3 Right Angle Beam	228-2500-147  3x3 30 Degree Angle Beam	228-2500-148  3x3 45 Degree Angle Beam
228-2500-149  3x3 60 Degreee Angle Beam	228-2500-150  3x5 Right Angle Beam	228-2500-151  4x4 Offset Right Angle Beam

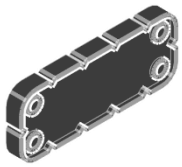
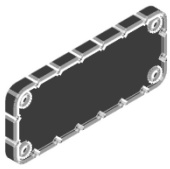
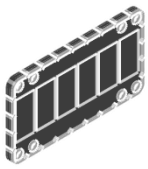
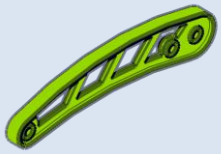
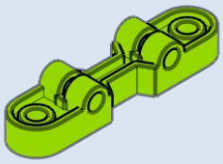
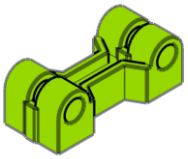
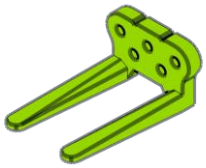
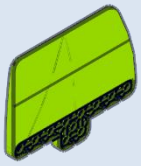
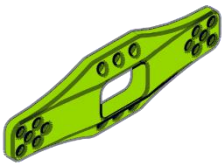
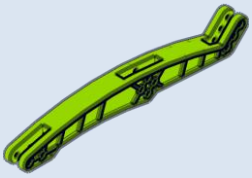
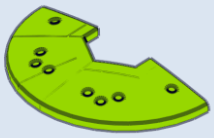
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228-2500-152  5x6.5 Tee Beam	228-2500-153  1x7 Spider Fork Beam	228-2500-154  1x1 Beam
228-2500-156  3x3 Plus Gusset Beam	228-2500-157  Rubber Band Anchor	228-2500-158  Cable Anchor
228-2500-159  Single Motor Support Cap	228-2500-160  Dual Motor Support Cap	228-2500-198  XL Turntable Spider Top Plate
228-2500-203  6x10 Bone Plate	228-2500-204  6x Pitch Cube Face	228-2500-205  12x12 Truss Plate
228-2500-206  2x11 Beam	228-2500-285  160mm Fender Panel Left	228-2500-286  160mm Fender Panel Right
228-2500-287  Racer Nose Panel	228-2500-288  Racer Windscreen	228-2500-289  Hex Cup Half

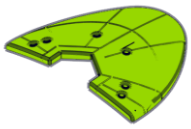
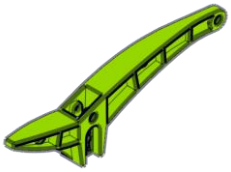
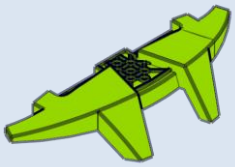
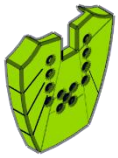
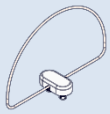
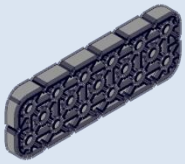
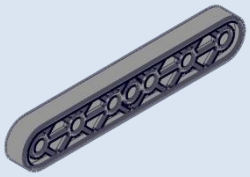
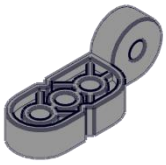
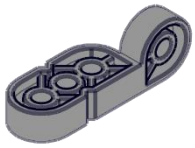
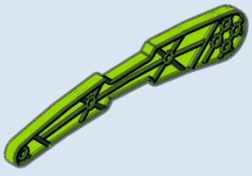
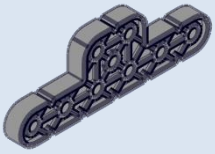
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228-2500-290  Blank Year Plate	228-2500-291  Blank Award / VIQC Team Number Plate	228-2500-292  Blank VRC / VEXU Team Number Plate
228-2500-293  1x8 Ballista Arm	228-2500-294  Ball Machine Claw	228-2500-295  Track Tiebar with Mounting
228-2500-296  Track Tiebar	228-2500-298  Fork Lift Beam	228-2500-299  Skyhook Hood
228-2500-300  Strandbeast Shoulder Blade	228-2500-301  Strandbeast Leg	228-2500-302  Strandbeast Face Plate
228-2500-303  Strandbeast Spine Arch	228-2500-304  3-Way 2x3 Plate	228-2500-305  3-Way Perpendicular 1x2 Plate
228-2500-306  Spider Leg	228-2500-307  Spider Face Plate	228-2500-308  Spider Top Plate - Front

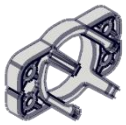
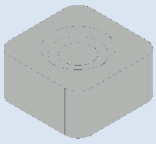
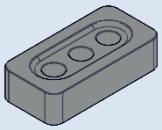
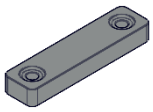
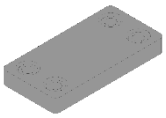
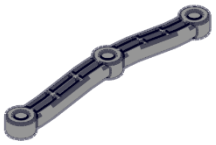
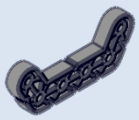
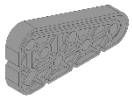
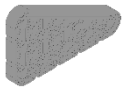
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228-2500-309  Spider Top Plate - Rear	228-2500-310  Scarab Leg	228-2500-311  Scarab Top Shell
228-2500-312  Scarab Front Shell	228-2500-313  Scarab Rear Shell	228-2500-315  Ant Front Plate
228-2500-316  Ant Center Plate	228-2500-317  Ant Rear Plate	228-2500-320  Ant Front Antenna
228-2500-321  Ant Rear Antenna	228-2500-322  2x6 Beam with Chamferred Ends	228-2500-323  1x6 Smooth Beam
228-2500-400  2x1 Left Corner Beam	228-2500-401  2x1 Right Corner Beam	228-2500-471  17x Robot Arm Beam
228-2500-472  12x Robot Arm Beam	228-2500-478  6x2x2 Tee Beam	228-2500-481  76mm Ball (Sun)

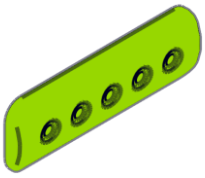
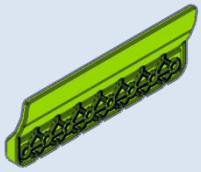
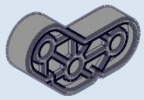
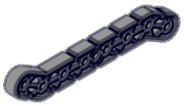
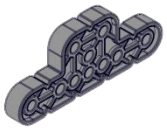
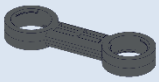
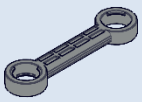
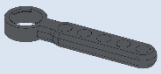
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228-2500-487  19mm Ball (Moon)	228-2500-495  38mm Ball (Earth)	228-2500-507  2x4 25mm Ball Shooter Plate (Weak)
228-2500-509  2x4 25mm Ball Shooter Plate (Strong)	228-2500-510  1x1 Smooth Panel	228-2500-511  1x2 Smooth Panel
228-2500-513  1x4 Smooth Panel	228-2500-520  2x4 Smooth Panel	228-2500-1110  1x6 (3-4-5 Triangle) Diagonal Offset Truss Beam
228-2500-1117  7x9x11 (6-8-10 Triangle) Truss Plate	228-2500-1189  2x3 Delta Tee Beam	228-2500-1199  2x4x2 Double 60 Degree Beam
228-2500-1240  2x4 Wedge Beam	228-2500-1245  3x5 Wedge Plate	228-2500-1268  2x Wide, 3x3 60 Degree Angle Beam

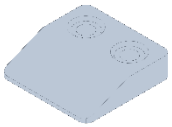
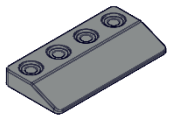
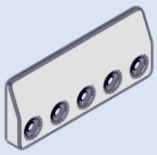
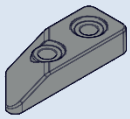
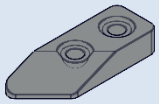
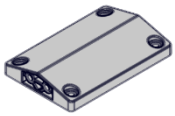
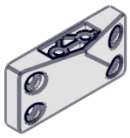
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228-2500-1270  4x4 25mm Tube Plus Plate	228-2500-1277  25mm Half Tube 6x Pitch Straight	228-2500-1287  25mm Half Tube 60 Degree Turn Small
228-2500-1302  25mm Half Tube 3x Pitch Barrel End	228-2500-1357  3x4 1x Offset Trapezoid Plate	228-2500-1436  2x6 Handle Plate
228-2500-1445  2x8 Medium Convex Plate	228-2500-1485  2x2 30 Degree Beam	228-2500-1486  2x2 45 Degree Beam
228-2500-1556  2x6x2 30 Degree Jogged Beam	228-2500-1600  3x12 Girder Plate; 2x8 2x Offset Trapezoid	228-2500-1601  5x2x2 Tee Beam
228-2500-1664  1x3 Ball Socket Linkage	228-2500-1665  1x4 Ball Socket Linkage	228-2500-1689  1x4 Single-Ended Ball Socket Beam

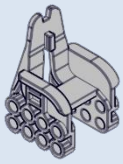
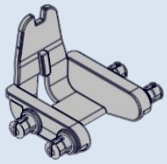
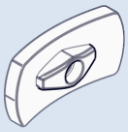
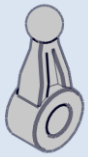
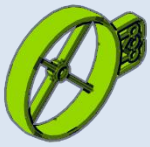
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228-2500-1698  5x Pitch Diameter, 10x Pitch Long Half Round Panel	228-2500-1702  2x2, Extended 0.5 x 1x Pitch Sloped Panel	228-2500-1704  2x4, Extended 0.5 x 1x Pitch Sloped Panel
228-2500-1705  2x5, Extended 0.5 x 1x Pitch Sloped Panel	228-2500-1727  1x3, Extended 0.5 x 1x Pitch, Diagonal Left Corner Sloped Panel	228-2500-1728  1x3, Extended 0.5 x 1x Pitch, Diagonal Right Corner Sloped Panel
228-2500-1828  4x6, Dual 0.5 x 2x Pitch Double Sloped Panel	228-2500-1848  4x2, Dual 0.5 x 2x Pitch Fade Double Sloped Panel	228-2500-1849  4x5, Dual 0.5 x 2x Pitch Extended Fade Sloped Panel
228-2500-1851  Minifigure Upper Torso	228-2500-1852  Minifigure Lower Torso	228-2500-1853  Minifigure Shoulder Pin
228-2500-1854  Minifigure Arm - Left	228-2500-1855  Minifigure Arm - Right	228-2500-1856  Minifigure Leg - Left

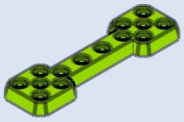
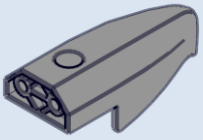
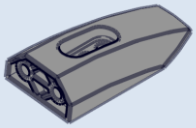
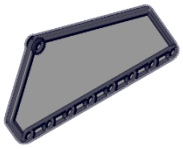
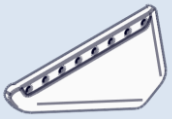
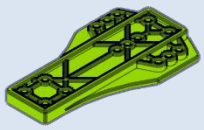
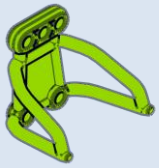
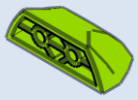
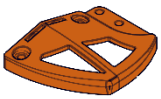
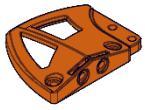
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VEX IQ Challenge 2019-2020 Legal Parts

228-2500-1857  Minifigure Leg - Right	228-2500-1858  Minifigure Seat - Over-beam Snap Hole	228-2500-1859  Minifigure Seat - Arm Rest Snap Pin
228-2500-1897  Astronaut Figure	228-2500-1898  Astronaut Head	228-2500-1899  Astronaut Backpack
228-2500-1900  1.5x3 Oblong Satellite Dish	228-2500-1905  2.5x1.4 Widescreen Monitor	228-2500-1909  1x Pitch Actuator Handle
228-2500-1911  Medium Rocket Engine Nozzle	228-2500-1915  2.5x3 Cylindrical Tank	228-2500-1918  3x Pitch Ducted Fan Housing
228-2500-1921  4x Pitch Ducted Fan Housing	228-2500-1924  2x1x1 Landing Gear Beam	228-2500-2000  6x6 Hexagon Plate
228-2500-2001  4x7x4 Offset Channel Beam	228-2500-2002  3x5x3.5 Vehicle Cab	228-2500-2003  4.5x4.5 Diagonal Corner Panel

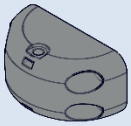
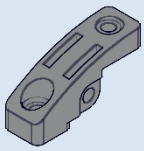
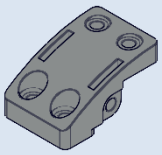
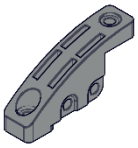
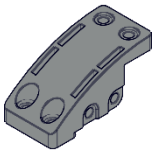
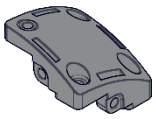
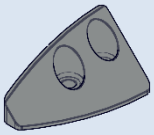
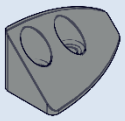
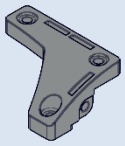
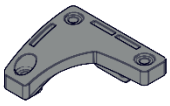
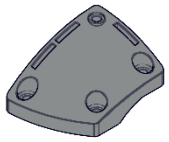
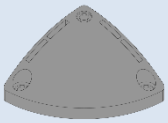
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228-2500-2004  2x7 Landing Gear Panel	228-2500-2006  2x5 Eagle Head Panel	228-2500-2007  2x4.75 Curved Fade Panel
228-2500-2008  3x5.5 Front Shuttle Panel	228-2500-2009  3x5 Dual Curved Fade Panel	228-2500-2010  9x4.5 Solar Flat Panel
228-2500-2011  2x1x1.5 Offset Wing Connector	228-2500-2012  Right Shuttle Wing	228-2500-2013  Left Shuttle Panel
228-2500-2015  3x3.5 Hexagon Flat Panel	228-2500-2016  3x4 End Flat Panel	228-2500-2017  2.5x5 Asymmetric End Flat Panel
228-2500-2018  4x7 Landing Skid Plate	228-2500-2019  2x3x2.5 Roll Cage	228-2500-2020  1x3 Bottom Shuttle Nose Panel
228-2500-2021  Large Vehicle Cab Left Panel	228-2500-2022  Large Vehicle Cab Right Panel	228-2500-2023  Large Vehicle Cab 4x Wide Windshield

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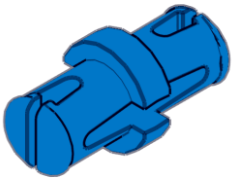
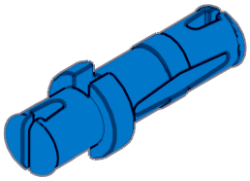
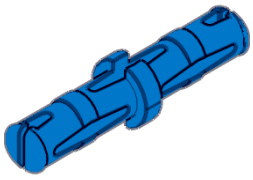
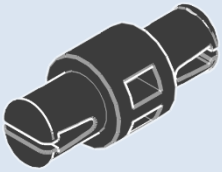
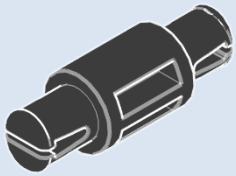
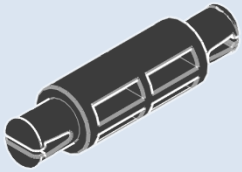
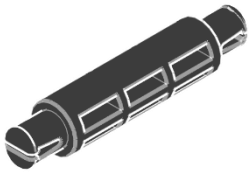
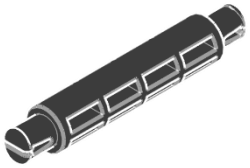
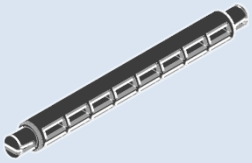
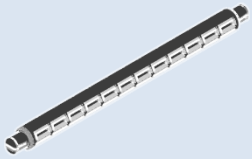
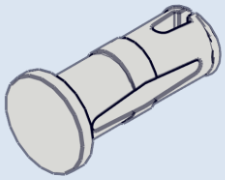
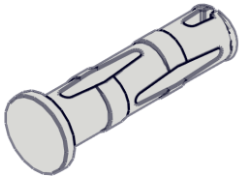
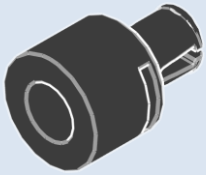
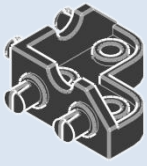
VEX IQ Challenge 2019-2020 Legal Parts

228-2500-2024  2x Wide, 4x Pitch Diameter Half Puck	228-2500-2100  3x1, R5 x Flat Curve Panel	228-2500-2101  3x2, R5 x Flat Curve Panel
228-2500-2108  4x1, R6 x Flat Curve Panel	228-2500-2109  4x2, R6 x Flat Curve Panel	228-2500-2116  3x3, R5 x R5 Curve Panel
228-2500-2120  Dual R5, Left Curve Filler Panel	228-2500-2121  Dual R5, Right Curve Filler Panel	228-2500-2124  3x4, R5 x Flat Left Concave Curve Panel
228-2500-2125  3x4, R5 x Flat Right Concave Curve Panel	228-2500-2134  3x4x3, R5 x R6 x Flat R5 Left Curve Panel	228-2500-2135  3x4x3, R5 x R6 x Flat R5 Right Curve Panel
228-2500-2161  4x4, Dual R6 Quarter Round Panel		

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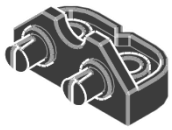
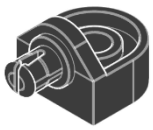
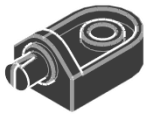
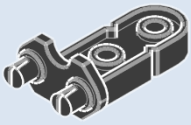
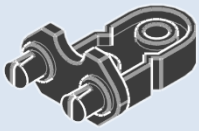
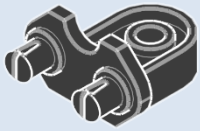
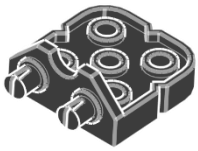
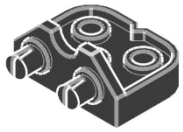
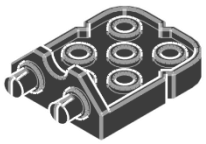
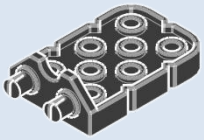
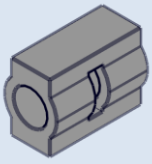
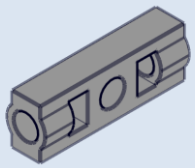
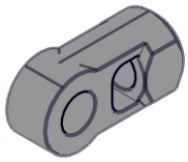
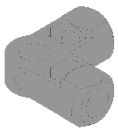
VEX IQ Challenge 2019-2020 Legal Parts

Connectors

228-2500-060  1x1 Connector Pin	228-2500-061  1x2 Connector Pin	228-2500-062  2x2 Connector Pin
228-2500-063  0.25x Pitch Standoff	228-2500-064  0.5x Pitch Standoff	228-2500-065  1x Pitch Standoff
228-2500-066  1.5x Pitch Standoff	228-2500-067  2x Pitch Standoff	228-2500-069  3x Pitch Standoff
228-2500-070  4x Pitch Standoff	228-2500-072  6x Pitch Standoff	228-2500-086  0x2 Connector Pin
228-2500-087  0x3 Connector Pin	228-2500-089  3x3 Connector Pin	228-2500-099  0x1 Sheet Pin
228-2500-109  0.5x Pitch Standoff Extender	228-2500-126  Large Chassis Corner Connector	228-2500-127  Small Chassis Corner Connector

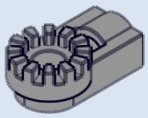
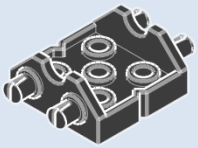
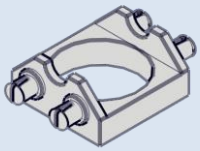
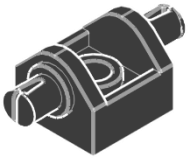
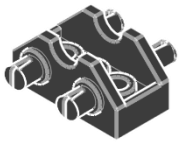
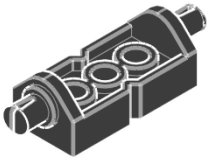
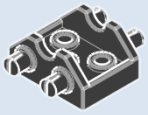
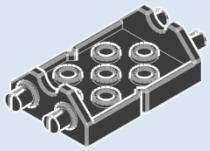
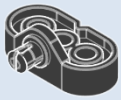
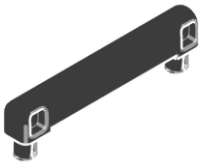
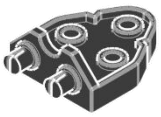
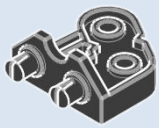
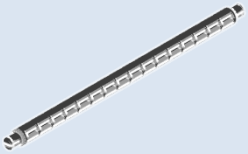
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228-2500-128  2x Wide, 1x2 Corner Connector	228-2500-129  1x Wide, 1x1 Corner Connector	228-2500-130  1x Wide, 1x1 Offset Corner Connector
228-2500-131  2x Wide, 2x1 Offset Corner Connector	228-2500-132  2x Wide, 2x1 Corner Connector	228-2500-133  2x Wide, 1x1 Offset Corner Connector
228-2500-134  2x Wide, 2x2 Corner Connector	228-2500-135  2x Wide, 1x2 Offset Corner Connector	228-2500-136  2x Wide, 2x2 Offset Corner Connector
228-2500-137  2x Wide, 3x2 Corner Connector	228-2500-170  Mini Standoff Connector	228-2500-171  Straight Standoff Connector
228-2500-172  End Standoff Connector	228-2500-175  45 Degree Standoff Connector	228-2500-178  90 Degree Standoff Connector

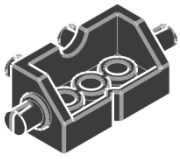
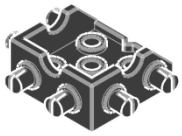
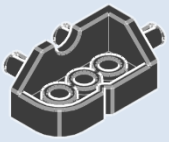
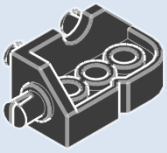
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228-2500-192  15 Degree Offset Locking Angle End Standoff Connector	228-2500-220  Double 2x Wide, 2x2 Corner Connector	228-2500-259  Double 2x Wide, 1/2" Pipe Connector
228-2500-270  Double 1x Wide, 1x1 Corner Connector	228-2500-271  Double 2x Wide, 1x2 Corner Connector	228-2500-272  Double 1x Wide, 2x1 Corner Connector
228-2500-274  Double 2x Wide, 1x2 Offset Corner Connector	228-2500-277  Double 2x Wide, 2x2 Double Offset Corner Connector	228-2500-279  1x Wide, 1x2 Corner Connector
228-2500-283  2x Wide, 1x3 Offset Corner Connector	228-2500-314  1x4 Bearing Surface Block	228-2500-368  2x Wide, 60 Degree Omni 1x2 Corner Connector
228-2500-371  2x Wide, 30 Degree Right 1x2 Corner Connector	228-2500-372  2x Wide, 30 Degree Left 1x2 Corner Connector	228-2500-1061  8x Pitch Standoff

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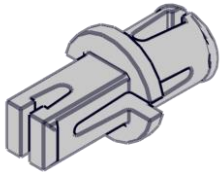
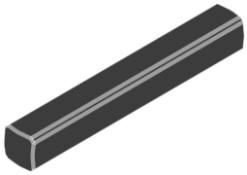
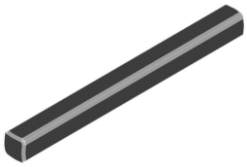
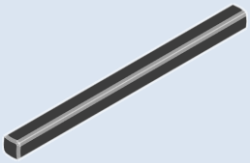
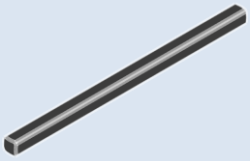
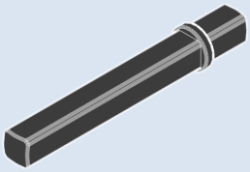
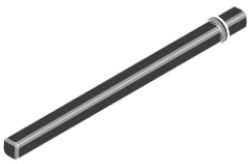
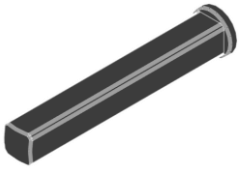
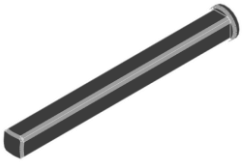
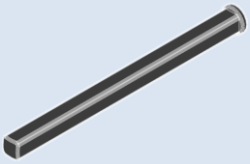
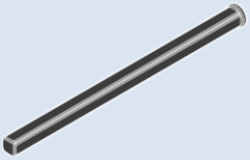
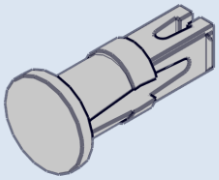
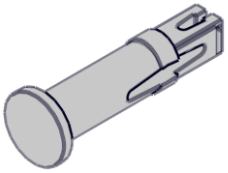
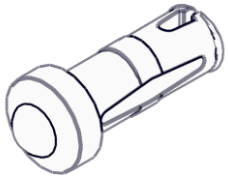
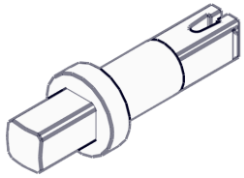
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228-2500-1250  Triple 1x Wide, 1x1 Corner Connector	228-2500-1251  Triple 1-2-1x Wide, 1x2 Corner Connector	228-2500-1253  Triple 2x Wide, 2x2 Corner Connector
228-2500-1254  1x2 Left Chassis Corner Connector	228-2500-1255  1x2 Right Chassis Corner Connector	228-2500-1906  4x Pitch Antenna
228-2500-1934  6x Pitch Flexible Standoff		

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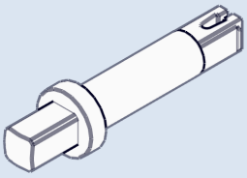
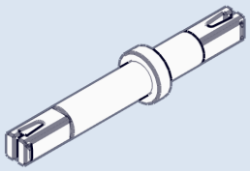
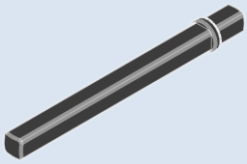
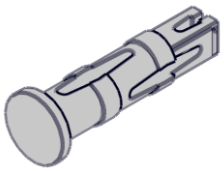
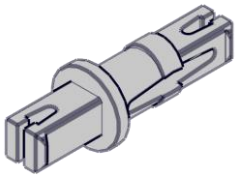
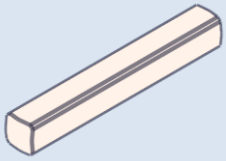
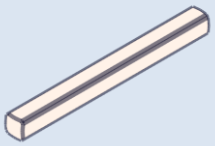
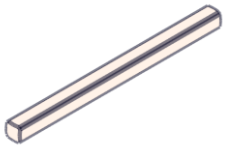
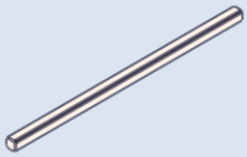
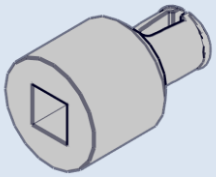
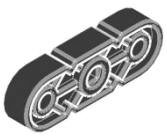
VEX IQ Challenge 2019-2020 Legal Parts

Motion

228-2500-073  1x1 Idler Pin	228-2500-074  2x Pitch Plastic Shaft	228-2500-075  3x Pitch Plastic Shaft
228-2500-076  4x Pitch Plastic Shaft	228-2500-077  5x Pitch Plastic Shaft	228-2500-078  2x Pitch Plastic Motor Shaft
228-2500-079  4x Pitch Plastic Motor Shaft	228-2500-080  2x Pitch Capped Plastic Shaft	228-2500-081  3x Pitch Capped Plastic Shaft
228-2500-082  4x Pitch Capped Plastic Shaft	228-2500-083  5x Pitch Capped Plastic Shaft	228-2500-084  0x2 Idler Pin
228-2500-085  0x3 Smooth Idler Pin	228-2500-090  0x2 Connector Pin with Spherical Cap	228-2500-091  1.5x Pitch Plastic Motor Snap Shaft v1

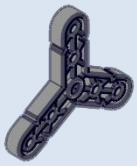
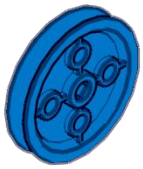
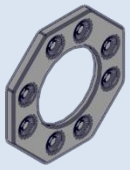
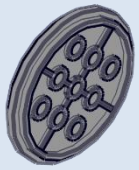
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228-2500-092  2x Pitch Plastic Motor Snap Shaft v1	228-2500-093  2x3 Smooth Idler Pin	228-2500-094  3x Pitch Plastic Motor Shaft
228-2500-097  0x3 Idler Pin	228-2500-098  1x2 Idler Pin	228-2500-112  Washer
228-2500-114  0.25x Pitch Spacer	228-2500-117  2x Pitch Shaft	228-2500-119  3x Pitch Shaft
228-2500-120  4x Pitch Shaft	228-2500-121  5x Pitch Shaft	228-2500-122  6x Pitch Shaft
228-2500-123  7x Pitch Shaft	228-2500-124  8x Pitch Shaft	228-2500-125  Shaft Bushing
228-2500-140  2x2 Center Lock Beam	228-2500-141  1x3 Center Lock Beam	228-2500-143  Rubber Shaft Collar

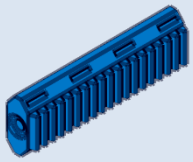
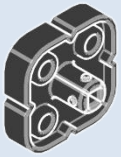
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228-2500-161  3x3 Wye Lock Beam	228-2500-163  10mm Pulley	228-2500-164  20mm Pulley
228-2500-165  30mm Pulley	228-2500-166  40mm Pulley	228-2500-168  Rubber Shaft Collar v1
228-2500-191  Small Turntable Center Bushing	228-2500-193  Small Turntable Outer Housing	228-2500-194  Large Turntable Center Bushing
228-2500-195  Large Turntable Outer Housing	228-2500-196  XL Turntable Spider Housing	228-2500-197  XL Turntable Spider Bushing
228-2500-199  XL Turntable Outer Housing	228-2500-200  XL Turntable Plain Bushing	228-2500-202  XL Turntable 36 Tooth Ring Gear Bushing
228-2500-207  Tire (100 mm Travel)	228-2500-208  Small Wheel Hub (Ø44 mm)	228-2500-209  Tire (200 mm Travel)

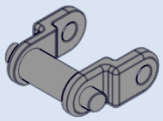
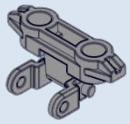
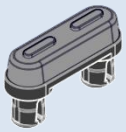
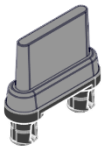
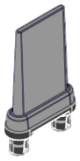
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228-2500-210  Tire (160 mm Travel)	228-2500-211  Large Wheel Hub (Ø64 mm)	228-2500-212  Tire (250 mm Travel)
228-2500-213  12 Tooth Gear	228-2500-214  36 Tooth Gear	228-2500-215  60 Tooth Gear
228-2500-216  Rack Gear	228-2500-217  Linear Slide	228-2500-218  36 Tooth Crown Gear
228-2500-219  Worm Gear	228-2500-221  2x30mm Rubber Belt	228-2500-222  2x40mm Rubber Belt
228-2500-223  2x50mm Rubber Belt	228-2500-224  2x60mm Rubber Belt	228-2500-225  Inner Twist Lock Collar
228-2500-226  Outer Twist Lock Collar	228-2500-227  24 Tooth Gear	228-2500-228  48 Tooth Gear

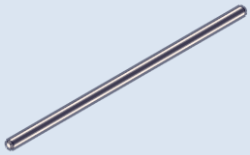
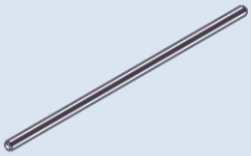
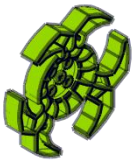
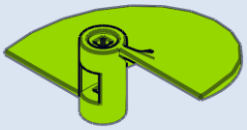
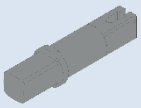
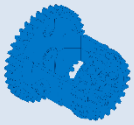
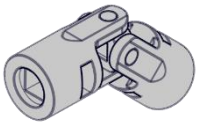
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228-2500-229  Spider 48 Tooth Ring Gear	228-2500-230  Chain Link	228-2500-231  Tank Tread Attachment Link
228-2500-232  8 Tooth Sprocket	228-2500-233  16 Tooth Sprocket	228-2500-235  24 Tooth Sprocket
228-2500-236  32 Tooth Sprocket	228-2500-237  40 Tooth Sprocket	228-2500-239  Traction Link
228-2500-240  Short Intake Flap	228-2500-241  Medium Intake Flap	228-2500-242  Long Intake Flap
228-2500-243  Scarab Thrust Washer for 60 Tooth Gear	228-2500-244  18 Tooth Bevel Gear	228-2500-245  Differential Gear
228-2500-246  1x4 Crank Arm with 23 Tooth Gear	228-2500-247  60 Tooth Internal Ring Gear	228-2500-260  9x Pitch Shaft

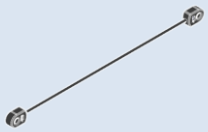
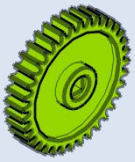
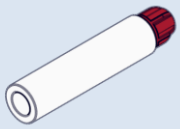
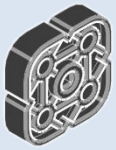
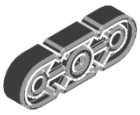
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228-2500-261  10x Pitch Shaft	228-2500-262  11x Pitch Shaft	228-2500-263  12x Pitch Shaft
228-2500-264  14x Pitch Shaft	228-2500-265  16x Pitch Shaft	228-2500-266  18x Pitch Shaft
228-2500-267  20x Pitch Shaft	228-2500-268  22x Pitch Shaft	228-2500-269  24x Pitch Shaft
228-2500-297  Hexcalator Wheel	228-2500-318  Ant Wheel - 96mm	228-2500-319  Ant Wheel - 86mm
228-2500-324  1.5x Pitch Screw Segment (CW)	228-2500-328  1x Pitch Plastic Motor Snap Shaft	228-2500-347  Differential Gear (High Strength)
228-2500-350  Universal Joint	228-2500-354  Hand Knob	228-2500-355  Dial Knob

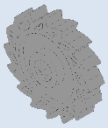
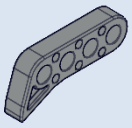
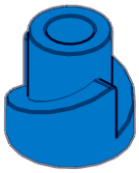
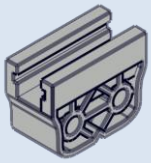
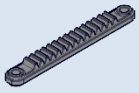
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228-2500-420  1x Wide Spool	228-2500-430  12x Pitch Rope	228-2500-436  20x Pitch Rope
228-2500-438  24x Pitch Rope	228-2500-451  36 Tooth Dog Gear	228-2500-461  15 Tooth Gear (34DP)
228-2500-462  36 Tooth Gear (34DP)	228-2500-463  12 Tooth High Strength Bevel Gear	228-2500-468  Silicone Rubber Band #32
228-2500-474  Silicone Rubber Band Thin #64	228-2500-475  Silicone Rubber Band #64	228-2500-477  Medium Dial Knob
228-2500-500  25mm Ball	228-2500-506  Foam Dart	228-2500-1140  2x2 Center Lock Beam
228-2500-1141  1x3 Center Lock Beam	228-2500-1208  Small Wheel Hub (Ø44 mm)	228-2500-1211  Large Wheel Hub (Ø64 mm)

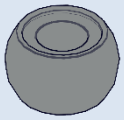
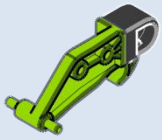
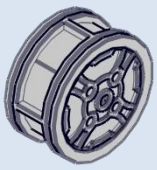
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228-2500-1225  2x30 mm Square Silicone Belt	228-2500-1306  Large 1x Pitch Drop Cam	228-2500-1384  4x Pitch Diameter (160 mm Travel) Low-Friction Wheel
228-2500-1394  Large Spring Dart	228-2500-1399  Large Dart Launcher (Vertical Mount)	228-2500-1402  6x Pitch Flywheel (75 g)
228-2500-1407  16 Tooth Ratchet	228-2500-1410  40 Tooth Ratchet	228-2500-1411  Short Low-Profile Pawl
228-2500-1446  Propeller Clutch (CCW)	228-2500-1447  Zip Flyer Propeller (CCW)	228-2500-1454  1x20 Linear Motion Rack Gear
228-2500-1456  1x5 Linear Motion Beam	228-2500-1469  2x Pitch Linear Motion Bracket (Side Mount)	228-2500-1472  1x6 Linear Motion Rack Gear
228-2500-1480  2x Pitch Shock Absorber (Strong)	228-2500-1560  2x Pitch Shock Absorber (Weak)	228-2500-1580  Steering Knuckle

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228-2500-1660  Ball Pin Bushing	228-2500-1700  Airplane Nose Hook	228-2500-1907  Small Auger Drill Bit
228-2500-1908  Small Gripper Actuator	228-2500-1916  0.75x Wide, 1.5x Pitch Diameter Rover Wheel	228-2500-1917  1.5x Wide, 2.5x Pitch Diameter Rover Wheel
228-2500-1919  3x Pitch 6-Blade Fan (CCW)	228-2500-1922  4x Pitch 6-Blade Fan (CCW)	228-2500-1925  2x2 Center Offset Round Lock Beam
228-2500-1926  2x Wide, 2x Pitch Diameter Rover Wheel	228-2500-1950  2x Wide, Ø32.2mm Diameter Hub	228-2500-1951  2x Wide, 3x Pitch Diameter Tire (Straight Offroad Tread)
228-2500-1952  2x Wide, 3.5x Pitch Diameter Balloon Tire (Chevron Offroad Tread)	228-2500-1953  2x Wide, Ø48.5mm Diameter Hub	228-2500-1954  2x Wide, 7x Pitch Diameter Balloon Tire (Racing Slick Tread)

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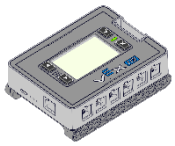
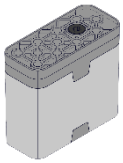
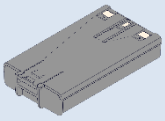
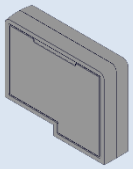
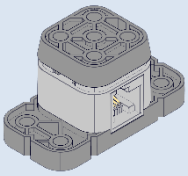
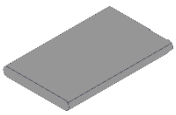
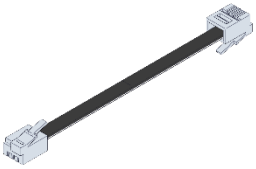
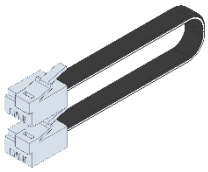
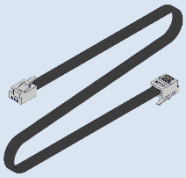
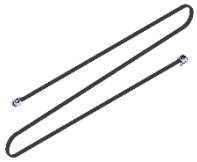
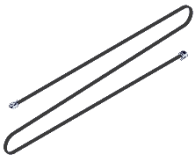
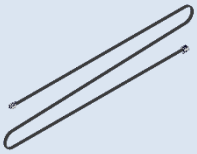
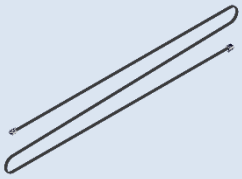
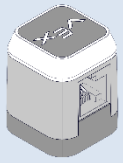
VEX IQ Challenge 2019-2020 Legal Parts

228-2500-1955	228-2500-1957	228-2500-1958
		
2x Wide, 7x Pitch Diameter Balloon Tire (Offroad Hex Tread)	2x Wide, 3.5x Pitch Diameter Balloon Tire (Trapezoid Offroad Tread)	2x Wide, 5x Pitch Diameter Balloon Tire (Racing Slick Tread)

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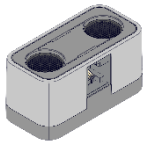
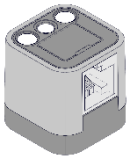
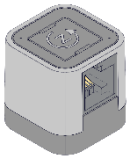
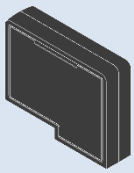
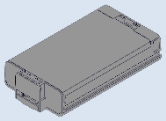
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Control

228-2530  Controller	228-2540  Robot Brain	228-2560  Smart Motor
228-2604  Robot Battery	228-2621  900 MHz Radio	228-2677  Bumper Switch
228-2779  Controller Battery	228-2780-001  200 mm Smart Cable	228-2780-002  300 mm Smart Cable
228-2780-003  400 mm Smart Cable	228-2780-004  600 mm Smart Cable	228-2780-005  800 mm Smart Cable
228-2780-006  1.0 m Smart Cable	228-2780-007  1.2 m Smart Cable	228-2780-008  1.4 m Smart Cable
228-2780-009  1.6 m Smart Cable	228-2780-011  2.0 m Smart Cable	228-3010  Touch LED

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228-3011  Distance Sensor	228-3012  Color Sensor	228-3014  Gyro Sensor
228-3015  2.4 GHz Radio	228-3530  Smart Radio	228-3493  Robot AA Battery Holder

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