

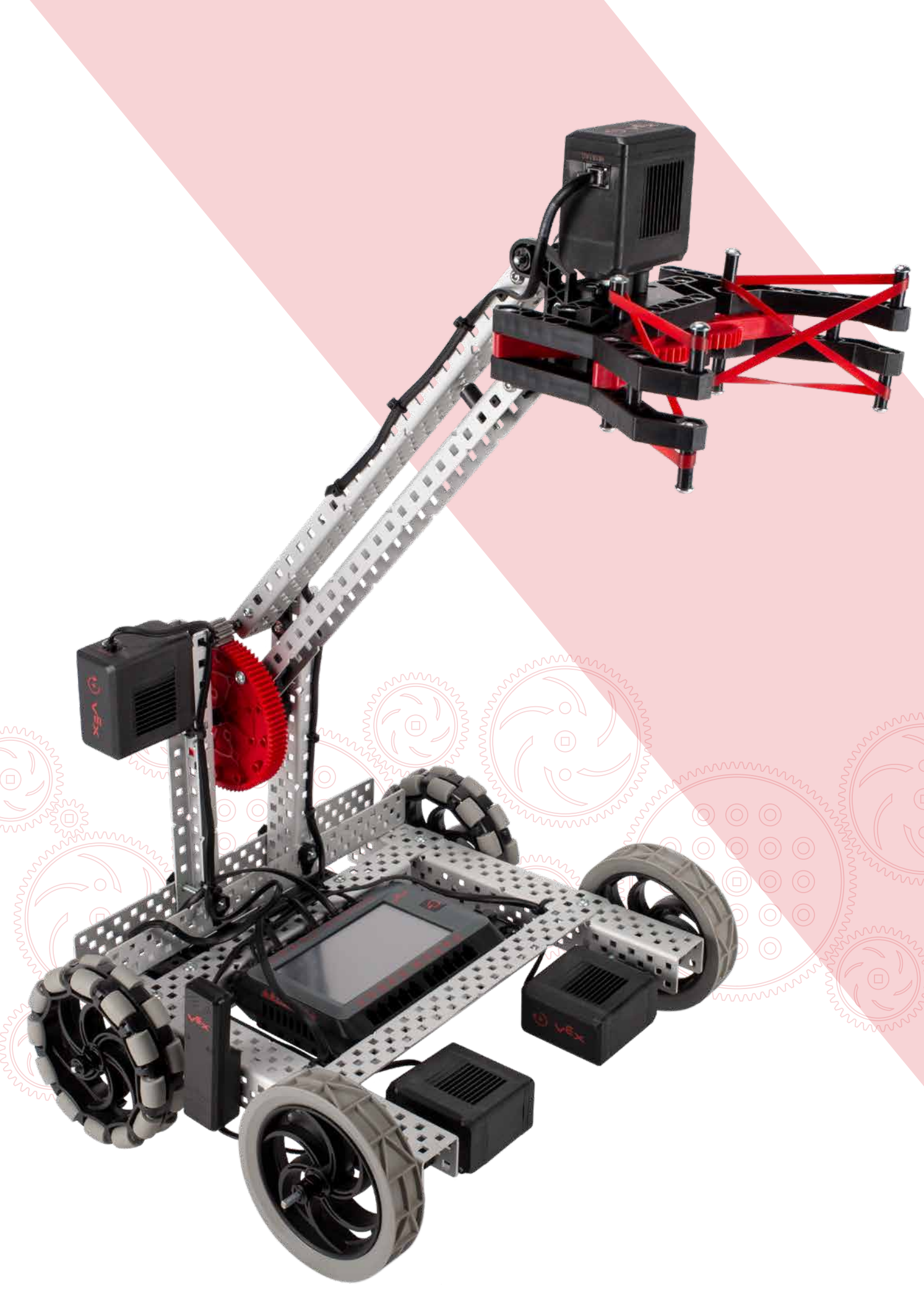


VEX

EDR™

PRODUCT CATALOG









Contents

Kits and Bundles	3
Electronics	7
Motion	11
Structure	19
Other	25
Competition Products	27



Hands-on Teaching Tools

VEX EDR V5 Kits & Bundles harnesses the excitement of building robots and immerses learners in computer science and problem solving concepts. Educators can bring VEX EDR into the classroom with our custom STEM Labs or use it as a standalone teaching tool in after-school robotics clubs as well as in the VEX Robotics Competition.

	Classroom	Competition
	<p>Starter Kits</p> <p>Recommended for Students New to Robotics</p> <ul style="list-style-type: none"> V5 Control System 4 Smart Motors 2 Sensors <p>Single Kit 276-7010 2-4 Students \$649.00</p> <p>Bundle of 6 276-7050 12-24 Students & 36 Game Objects \$3,899.00</p> 	<p>Super Kits</p> <p>Recommended for Students with Robotics Experience</p> <ul style="list-style-type: none"> V5 Control System 1 Vision Sensor 6 Smart Motors 7 Sensors <p>Single Kit 276-7020 2-4 Students \$1,299.00</p> <p>Bundle of 6 276-7060 12-24 Students & 36 Game Objects \$7,799.00</p> 
	<p>Recommended for New Competition Teams</p> <ul style="list-style-type: none"> V5 Control System 4 Smart Motors 2 Sensors <p>One New Team 276-7030 \$999.00</p> 	<p>Recommended for Advanced Competition Teams</p> <ul style="list-style-type: none"> V5 Control System 1 Vision Sensor 8 Smart Motors 4 Sensors 4,000+ Robot Parts Aluminum Structure <p>One Advanced Team 276-7040 \$1,649.00</p> <p><i>Does not include V5 Claw Kit</i></p> 

○ V5 System Bundle



Images not to scale.

Take your VEX EDR robot to the next level with the V5 System Bundle. This bundle includes everything you need to get started with V5, and is engineered to provide the most advanced robotics experience, right at your fingertips.

- Designed to scale from the classroom to the competition field
- Includes all necessary components to get started with the V5 System
- Scalable programming software suite available with VEXcode

V5 System Bundle 276-7000 \$599.00

Classroom Kits

○ V5 Classroom Starter Kit

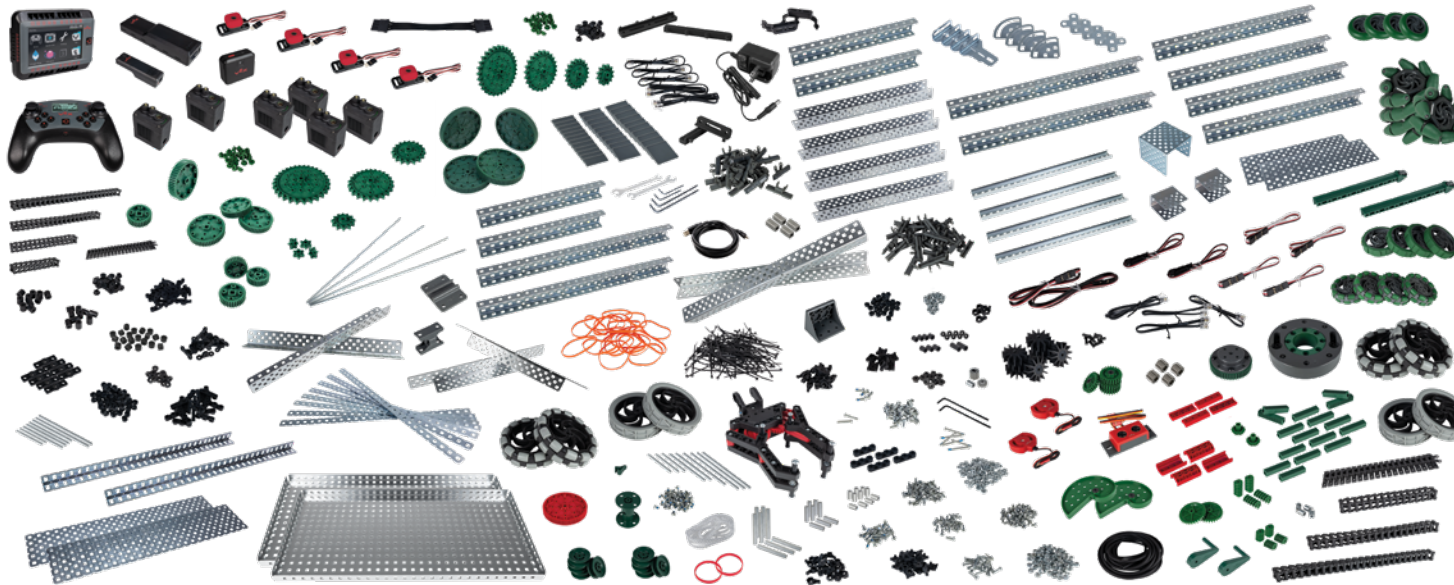


Perfect for any STEM or Computer Science class, students can build and program with this engaging hands-on teaching tool. This robotics kit can be re-purposed to teach a variety of lessons ranging from mechanical advantage to computer programming and iterative design. Integrate this solution into your existing curriculum plans, or pair it seamlessly with our standards-aligned STEM Labs.

- Contains (1) V5 System Bundle
- Includes everything needed to build the VEX V5 Clawbot
- Scalable programming software suite available with VEXcode
- STEM Labs help develop how students approach critical thinking & problem solving

V5 Classroom Starter Kit 276-7010 \$649.00

○ V5 Classroom Super Kit



The V5 Classroom Super Kit engages students by bringing math, engineering, and computer science classes to life. Through hands-on building and programming, students can explore these subjects while moving at their own pace through our STEM Labs, or the hardware can be easily integrated into existing curriculum.

- Contains (1) V5 System Bundle and (1) Vision Sensor
- Includes all required parts to build the V5 Clawbot
- Teach engineering concepts with the included motion kits
- Scalable programming software suite available with VEXcode
- Standards-aligned STEM Labs develop how students approach critical thinking & problem solving

V5 Classroom Super Kit 276-7020 \$1,299.00



Classroom Bundles

V5 Classroom Starter Bundle



Everything needed to implement a hands-on STEM learning solution for a classroom of 24 students! This bundle contains all the necessary parts to bring engineering, math, technology or computer science to life with six V5 Classroom Starter kits, plus fun game elements that turn educational learning into a competitive sport!

- Contains (6) V5 Classroom Starter Kits (276-7010)
- Scalable programming software suite available with VEXcode
- Standards-aligned STEM Labs develop how students approach critical thinking & problem solving

V5 Classroom Starter Bundle	276-7070	\$3,899 ⁰⁰
-----------------------------	----------	-----------------------

V5 Classroom Super Bundle



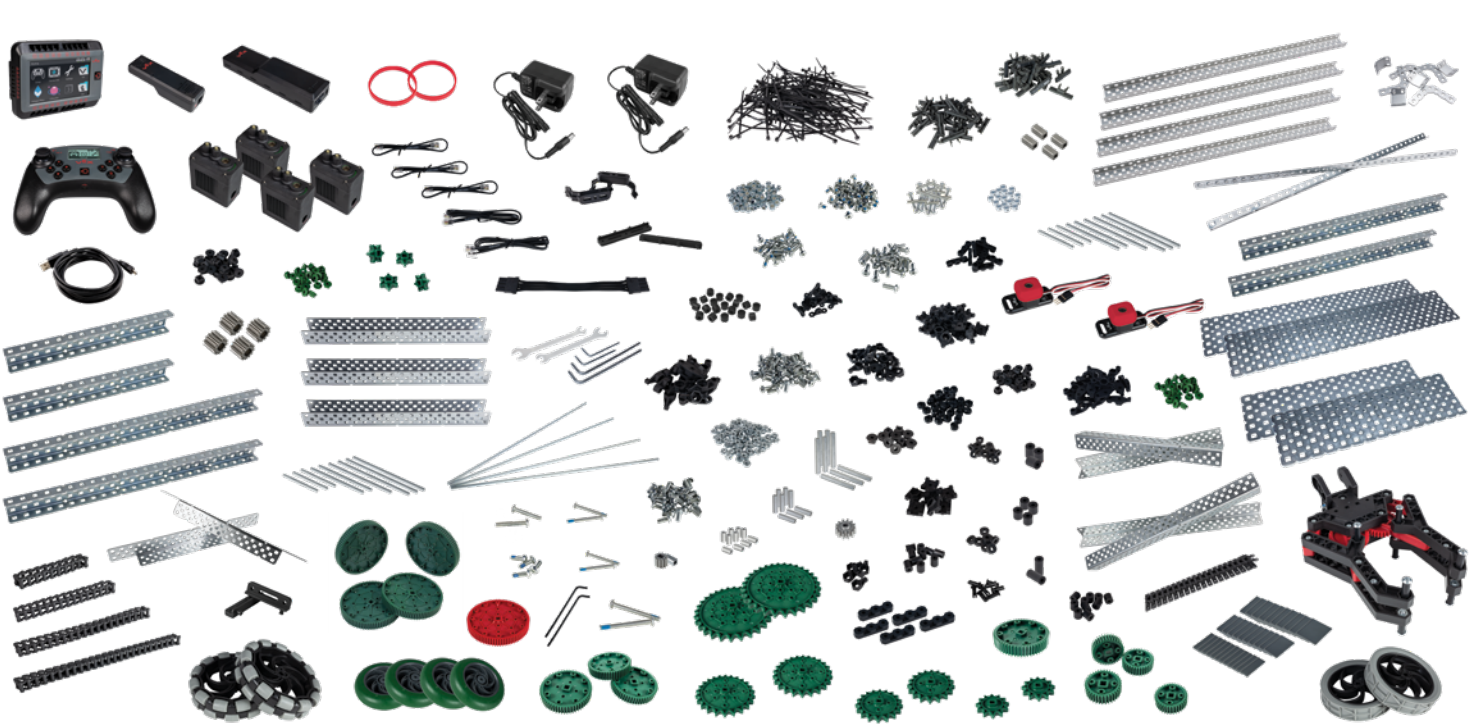
Kickstart your robotics program or classroom with the V5 Classroom Super Bundle. This bundle contains more than enough hardware, electronics, and motion parts to outfit an entire classroom with the ultimate educational robotics experience. Get started today!

- Contains (6) V5 Classroom Super Kits (276-7020)
- Scalable programming software suite available with VEXcode
- Standards-aligned STEM Labs develop how students approach critical thinking & problem solving

V5 Classroom Super Bundle	276-7080	\$7,799 ⁰⁰
---------------------------	----------	-----------------------

Competition Kits

V5 Competition Starter Kit



Take educational robotics to the next level by competing in the VEX Robotics Competition. The only limit to this open-ended building system is your own imagination! The V5 Competition Starter Kit includes a complete V5 control system, aluminum structural elements, and high strength parts so that a team of students can build a bigger, stronger, and faster robot.

- Compete with over 11,000 VEX Robotics Competition teams
- Lightweight aluminum structure designed specifically for competition
- Scalable programming software suite available with VEXcode

V5 Competition Starter Kit	276-7030	\$999 ⁰⁰
----------------------------	----------	---------------------

V5 Competition Super Kit



The perfect all-in-one kit for any new VEX Robotics Competition team, or an existing team looking to supercharge their robot. This kit contains everything needed to get up and running with the V5 Control System, along with a wide variety of aluminum structural parts to build lighter and faster mechanisms, and the Vision Sensor to see the competition from a whole new perspective.

- Compete with over 11,000 VEX Robotics Competition team
- Build powerful mechanisms with the included high strength gears, sprockets, and shafts
- Scalable programming software suite available with VEXcode

V5 Competition Super Kit	276-7040	\$1,649 ⁰⁰
--------------------------	----------	-----------------------

V5 Robot Brain



Everything centers on the V5 Robot Brain. The color touchscreen makes the V5 Brain familiar and easy to use without needing a manual. Connect your motors and sensors to any of the 21 smart ports. You can even use existing Cortex sensors by connecting them to the additional eight 3-Wire ports. A graphical dashboard is built-in for every connected device, providing incredible teaching and diagnostic capability.

- Other features include:
- 4.25" full color touch-screen
 - Dashboards provide real-time diagnostics
 - Download programs wirelessly
 - Programmable with VEXcode

V5 Robot Brain	276-4810	\$274. ⁹⁹
----------------	----------	----------------------

V5 Controller



Take control like never before. The Controller's onboard screen allows users to start and stop programs remotely, view battery levels, and see information from your own programs. Now the Controller's internal battery lasts 8-10 hours and charges in one hour via USB. Adding a second Controller allows two students to control one robot.

- Other features include:
- Start and stop programs from the controller
 - Programmable haptic feedback
 - Competition practice mode - sync up with other robots and run practice matches
 - Built-in VEXnet 3.0 radio and Bluetooth®
 - Integrated rechargeable battery

V5 Controller	276-4820	\$109. ⁹⁹
---------------	----------	----------------------

V5 Smart Motor and Gear Cartridges



Precise and powerful robot control, now available for everyone. Users have control of motor speed, power, angle and exact revolutions, making autonomous control accurate and repeatable. The swappable gear cartridges give the motor three maximum speed options: 100, 200 and 600 rpm. New to V5 is consistent motor performance regardless of battery level or motor temperature.

- Use the built-in encoder to track a robot's rotational position and velocity
- Ships with the standard gear cartridge of 18:1 (200 RPM)
- Cartridges for 36:1 (100 RPM) & 6:1 (600 RPM) are also available
- Compatible with both VEX EDR shaft sizes

1	V5 Smart Motor	276-4840	\$39. ⁹⁹
2	V5 Smart Motor 36:1 Cartridge (100RPM)	276-5840	\$11. ⁴⁹
3	V5 Smart Motor 18:1 Cartridge (200RPM)	276-5841	\$11. ⁴⁹
4	V5 Smart Motor 6:1 Cartridge (600RPM)	276-5842	\$11. ⁴⁹

V5 Smart Cables



V5 Smart Cables allow robot components such as motors and sensors to communicate with the Robot Brain. These are available to purchase at pre-cut short and long assortments, or create your own custom length wires with the V5 Crimping Tool!

1	V5 Smart Cables (Starter Pack)	276-6364	\$8. ⁹⁹
2	V5 Smart Cables (Short Assortment)	276-4860	\$5. ⁷⁹
3	V5 Smart Cables (Long Assortment)	276-4861	\$11. ⁴⁹
4	V5 Smart Cable Crimping Tool	276-5773	\$21. ⁹⁹
5	V5 Smart Cable Stock (8m)	276-5774	\$6. ⁹⁹
6	V5 Smart Cable Connectors (50-Pack)	276-5775	\$3. ⁴⁹

V5 Power Cable Assortment



An assortment of spare V5 Robot Power Cables. This cable connects the V5 Robot Brain to the V5 Robot Battery Li-Ion 1100mAh. Cables come in sizes 180 mm, 300 mm, and 500 mm.

V5 Power Cable Assortment	276-4817	\$32. ⁹⁹
---------------------------	----------	---------------------

V5 Robot Battery Li-Ion 1100 mAh



This lithium-ion battery has enough power to run ten V5 motors at full power continuously. Built-in electronics handles charging, cell balancing and precise capacity measurement. Check your battery level with the press of a button. Charge time is approximately 60 minutes, and you can even use the Brain while the battery charges.

- Built-in charge indicator lights
- Charge time is approximately one hour

V5 Robot Battery Li-Ion 1100 mAh	276-4811	\$54. ⁹⁹
----------------------------------	----------	---------------------

V5 Robot Radio



The beauty of a reliable radio connection, in a small simple package. The V5 Robot Radio allows your V5 Robot Brain to communicate with other devices. All wireless communication to the V5 Robot Brain is done through the V5 Robot Radio, including competition control and wireless activation of VEX Coding Studio programs.

- VEXnet 3.0 supports 500 simultaneous robot channels
- Capable of wirelessly connecting to Bluetooth® enabled devices
- LED indicator for linked, scanning and active modes

V5 Robot Radio	276-4831	\$43. ⁹⁹
----------------	----------	---------------------

V5 Robot Battery Charger



Charge your battery quickly with the V5 Robot Battery Charger. Your V5 Robot Battery Li-Ion 1100mAh can be fully recharged in under 60 minutes.

V5 Robot Battery Charger	276-4812	\$11. ⁴⁹
--------------------------	----------	---------------------



QUICK SHOP

○ Vision Sensor



See a whole new perspective on STEM education. Use the Vision Sensor to locate up to seven individual colored objects at once. Now your programs can find specific objects, turn towards them, and drive right up to them. See a “live” feed from your robot’s point of view with a browser and wifi.

- Other features include:
- Analyze objects for advanced tracking and path planning
 - Built-in Wi-Fi radio
 - Compatible with VEX IQ

Vision Sensor	276-4850	\$79.99
---------------	----------	---------

○ Bumper Switch (2-pack)



Give your robot the sense of touch with the Bumper Switch v2. Compatible with the V5 Robot Brain and the VEX ARM® Cortex®-based Microcontroller.

- Provides feedback to the brain as events “happen”
- Low force switch can detect light touch
- Use to detect walls or limit an arms motion

Bumper Switch v2 (2-pack)	276-4858	\$10.99
---------------------------	----------	---------

○ Advanced Sensor Kit

The VEX Advanced Sensor Kit provides a mix of sensors that optimize your robots performance. Increase the challenge, and your robot’s abilities, by adding sensor implementation aspect to classroom or competition field.

- (1) Line Tracking Kit
- (1) Ultrasonic Range Finder
- (1) Light Sensor
- (2) Optical Shaft Encoders (2-pack)
- (2) Potentiometers (2-pack)

Advanced Sensor Kit	276-1179	\$109.99
---------------------	----------	----------

○ Ultrasonic Range Finder



Avoid obstacles and measure distance with the ultrasonic range finder. This device emits a high-frequency sound wave that alerts the robot to obstacles in its path.

- Measure distances from 1.5in to 115in

Ultrasonic Range Finder	276-2155	\$32.99
-------------------------	----------	---------

○ Light Sensor



Allows your robot to detect and react to light.

- Analog input of light levels
- Usable range of 0 to 6 feet

Light Sensor	276-2158	\$21.99
--------------	----------	---------

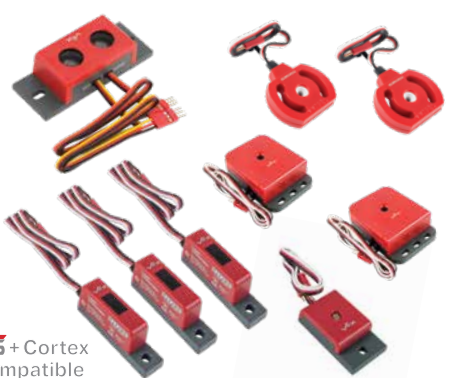
○ Limit Switch (2-pack)



These switches are great for detecting subtle events, such as when a robot arm has reached the top or bottom of its motion.

- Provides instant feedback to the brain
- Bendable sheet metal switch “arm” is very versatile
- Useful as a trigger in a variety of applications

Limit Switch (2-pack)	276-2174	\$14.49
-----------------------	----------	---------



○ Line Tracker (3-pack)



Reads the difference between a black line and a white surface; can be used with programming software to follow a marked path on the ground. A Programming Kit is needed to change the program in the VEX Controller.

- Navigate down a marked path
- Use for light sensing
- More autonomous functionality

Line Tracker (3-pack)	276-2154	\$43.99
-----------------------	----------	---------

○ Potentiometer (2-pack)



Determines both position and direction of rotation. This helps to calculate the precise position of robot arms or other mechanisms using programming software. Potentiometers are typically used for “limited rotation” applications, such as an arm or lever.

- Measure Angular Position
- 250-Degrees of Adjustment
- Adjustable mounting angle

Potentiometer (2-pack)	276-2216	\$14.49
------------------------	----------	---------

○ Optical Shaft Encoder (2-pack)

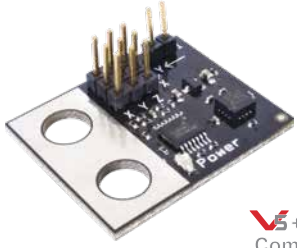


Measures both the position and rotational direction of a VEX shaft. This allows the user to calculate the speed of the shaft, as well as the distance it has traveled using programming software. Encoders are typically used for “infinite rotation” applications, such as drive wheels.

- Measure Angular Travel
- Determine Rotational Direction
- Calculate Shaft Speed

Optical Shaft Encoder (2-pack)	276-2156	\$21.99
--------------------------------	----------	---------

○ Analog Accelerometer V1.0



Measures accelerations on three axes simultaneously. By measuring the acceleration of the robot, one can calculate the velocity of the robot or the distance this robot has traveled.

- Three axis accelerometer
- Selectable sensitivity via jumper: ±2g and ±6g
- 0-5V analog output (one for each axis)

Analog Accelerometer V1.0	276-2332	\$43.99
---------------------------	----------	---------

○ Yaw Rate Gyroscope Sensor V1.0



Enhances autonomous movement and feedback from a VEX robot by detecting a robot’s rotation from its origin on a single axis.

- Single-axis gyroscopic sensor
- Detects a rotation of up to +/- 1000° per second

Yaw Rate Gyroscope Sensor V1.0	276-2333	\$39.99
--------------------------------	----------	---------

○ 3-Wire Extension Cables



Used to extend the length of a 3-wire cable such that a motor or motor controller can be farther from a VEX microcontroller 3-wire application. The 3-Wire “Y” Cable allows 2 motors or servos to be driven by a single microcontroller output.

1	3-Wire Extension Cable 6” (4-pack)	276-1427	\$5.49
2	3-Wire Extension Cable 12” (4-pack)	276-1426	\$8.99
3	3-Wire Extension Cable 24” (4-pack)	276-1425	\$8.99
4	3-Wire Extension Cable 36” (4-pack)	276-1976	\$8.99
5	3-Wire “Y”-Cable 6” (2-pack)	276-1423	\$5.49
	3-Wire Extension Cables (Small Bundle)	276-1395	\$5.49
	3-Wire Extension Cables (Large Bundle)	276-1424	\$16.99

○ VEX ARM® Cortex®-based Microcontroller



The VEX ARM® Cortex®-based Microcontroller coordinates the flow of information and power on the robot. All other electronic system components must interface to the Microcontroller - it is the “brain” of a robot.

- STMicroelectronics ARM® Cortex® M3 user processor
- (8) Standard 3-wire Motor ports
- (2) 2-wire Motor ports
- (1) I2C “smart sensor” port
- (2) UART Serial Ports
- (8) Hi-res (12-bit) Analog inputs
- (12) Fast digital I/O ports that can be used as interrupts
- Programmable with VEXcode

VEX ARM® Cortex®-based Microcontroller	276-2194	\$249.99
--	----------	----------

○ VEXnet Key 2.0



The VEXnet Key 2.0 provides wireless communication between VEX ARM® Cortex®-based Microcontroller and VEXnet Joysticks. Think of the VEXnet Key 2.0 as the “radio” that enables remote control. This key utilizes the new VEXnet 2.0 communication protocol over a custom 2.4 GHz radio. The VEXnet Key 2.0 is a functionally identical replacement for the first generation VEXnet key. However, a link cannot use a first generation key on one side and a VEXnet Key 2.0 on the other side of the link.

- Works with the VEX ARM® Cortex®-based Microcontroller
- Uses VEXnet 2.0 communication protocol over 2.4 GHz data radio
- Rubber fins help retain key once installed

VEXnet Key 2.0	276-3245	\$43.99
----------------	----------	---------

○ VEXnet Joystick



○ 7.2V Robot Battery NiMH



The VEX EDR 7.2V Nickel Metal Hydride Battery provides a rechargeable power source for use with your VEX EDR robots.

- Capacity: 2000mAh or 3000mAh
- Rechargeable Nickel Metal Hydride (NiMH)
- Standard VEX power connector

1	7.2V Robot Battery NiMH 3000mAh	276-1491	\$34.99
2	7.2V Robot Battery NiMH 2000mAh	276-1456	\$21.99

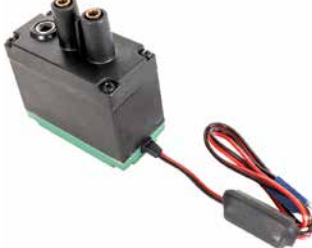
○ Motors & Servos



Use 393’s to power your intakes, lifts, and drivetrains. We also offer replacement gears to give your motors a speed boost.

1	3-Wire Servo	276-2162	\$22.99
2	Motor 393 Refurb Kit	276-2487	\$5.49
3	393 Motor Turbo Gear Set (4-pack)	276-3527	\$14.49
4	Motor Controller 29	276-2193	\$10.99

○ 2-Wire Motor 393



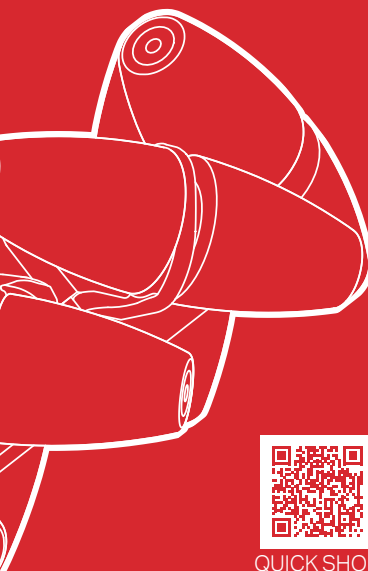
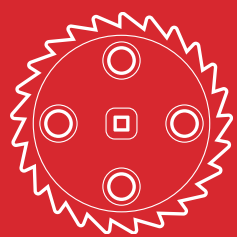
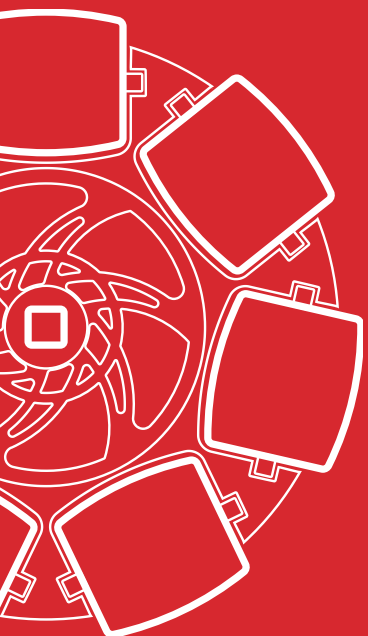
VEX EDR 393 motors are the primary motors used for robot mechanisms. We also offer replacement gears to give your motors a speed boost. Use 393’s to power your intakes, lifts, and drivetrains.

2-Wire Motor 393	276-2177	\$16.99
------------------	----------	---------

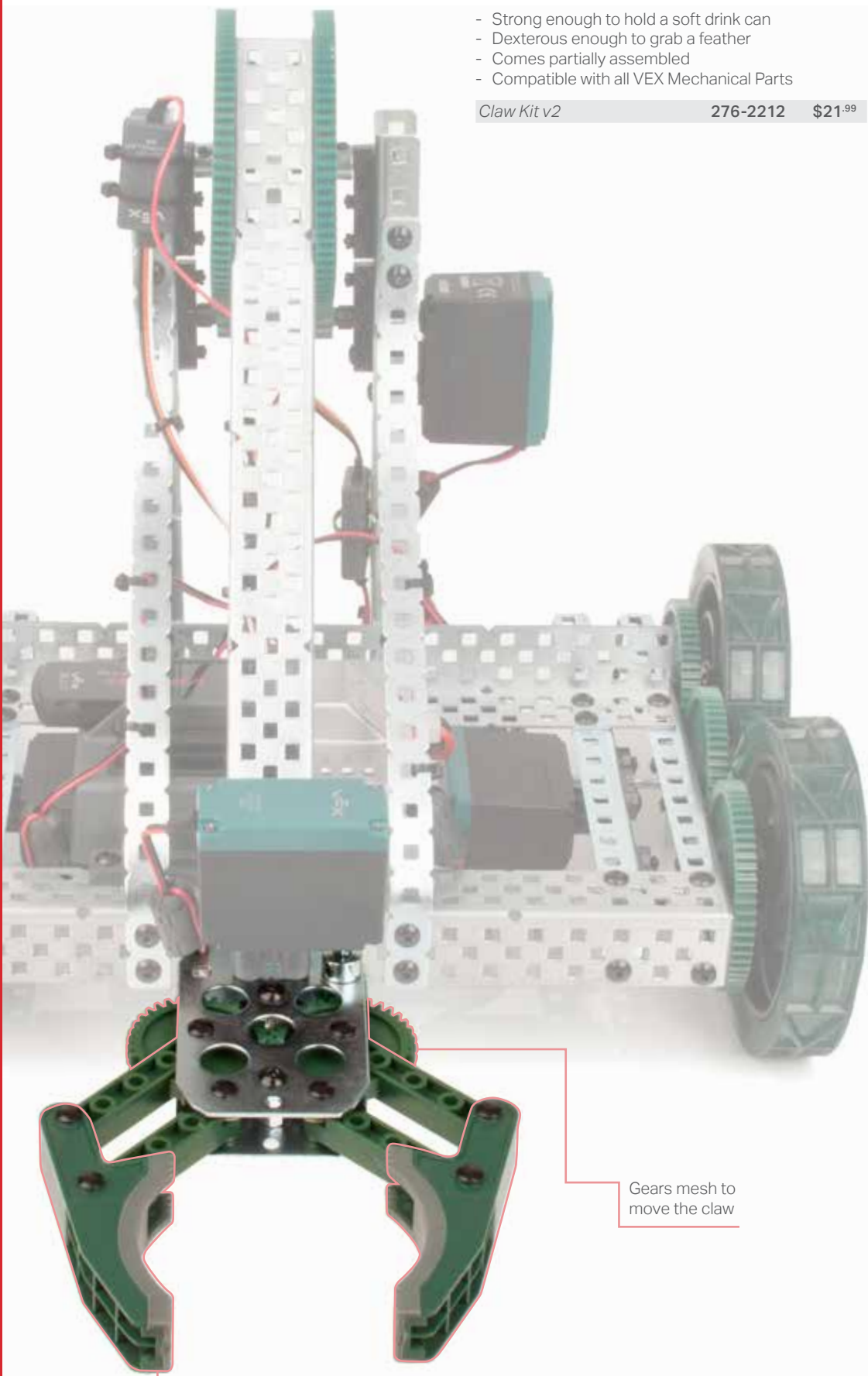
The VEXnet Joystick is the most intuitive way to wirelessly control a VEX EDR robot. With a familiar layout inspired by video game controllers, the VEXnet Joystick features a 2-axis accelerometer, 8 face buttons, and 4 “trigger” buttons. Powered by (6) AAA batteries or through the VEXnet Joystick Power Adapter. VEXnet Key 2.0 is required for wireless communication.

- Only compatible with the VEX ARM® Cortex®-based Microcontroller
- Wireless robot control using VEXnet technology
- When using multiple drivers to control a single robot, they must both be using the same type of transmitter – the VEXnet Joystick and the 75MHz transmitter cannot be mixed

VEXnet Joystick	276-2192	\$169.99
-----------------	----------	----------



QUICK SHOP



○ Claw Kit

Easily grab and manipulate various objects. Motor required but not included.

- Strong enough to hold a soft drink can
- Dexterous enough to grab a feather
- Comes partially assembled
- Compatible with all VEX Mechanical Parts

Claw Kit v2 276-2212 \$21⁹⁹

Versatile enough to hold a variety of objects

Gears mesh to move the claw

Wheels

○ Omni-Directional Wheels



Defense may not always win championships, but being able to move does. Put some power on the floor with our large variety of wheel options available for builders. Omni-Directional wheels roll forward like normal wheels, but slide sideways with almost no friction (no skidding during turns). Use these wheels to make your robot turn smoothly or build a holonomic drivetrain.

1	2.75" Omni-Directional Wheel - Double Roller (2-pack)	276-1902	\$21 ⁹⁹
2	3.25" Omni-Directional Wheel (4-Pack)	276-3526	\$43 ⁹⁹
3	4" Omni-Directional Wheel (2-pack)	276-2185	\$27 ⁴⁹

○ Mecanum Wheels



Mecanum Wheels allow savvy robot designers to create drivetrains capable of moving in any direction using a standard chassis shape. Simply power each wheel with its own independent motor by changing the directions the wheels spin, your robot can now move sideways!

4" Mecanum Wheel (4-pack) 276-1447 \$64⁹⁹

○ Traction Wheels



Traction Wheels are designed for optimal grip on soft surfaces like the foam tiles used in the VEX Robotics Competition. Removing the tread of the 2.75" wheel reveals a low-friction wheel that can be used for other purposes. Removing the tread of the 4" wheel reveals a ribbed plastic wheel.

- Offered in multiple sizes
- High traction tire profile
- Versatile wheel inserts for a variety of applications

1	2.75" Wheel (4-pack)	276-1496	\$10 ⁹⁹
2	3.25" Traction Wheel (4-Pack)	276-3525	\$21 ⁹⁹
3	4" Wheel (4-pack)	276-1497	\$21 ⁹⁹
4	4" High Traction Tire (4-pack)	276-1489	\$14 ⁴⁹



High Strength Gear Kit

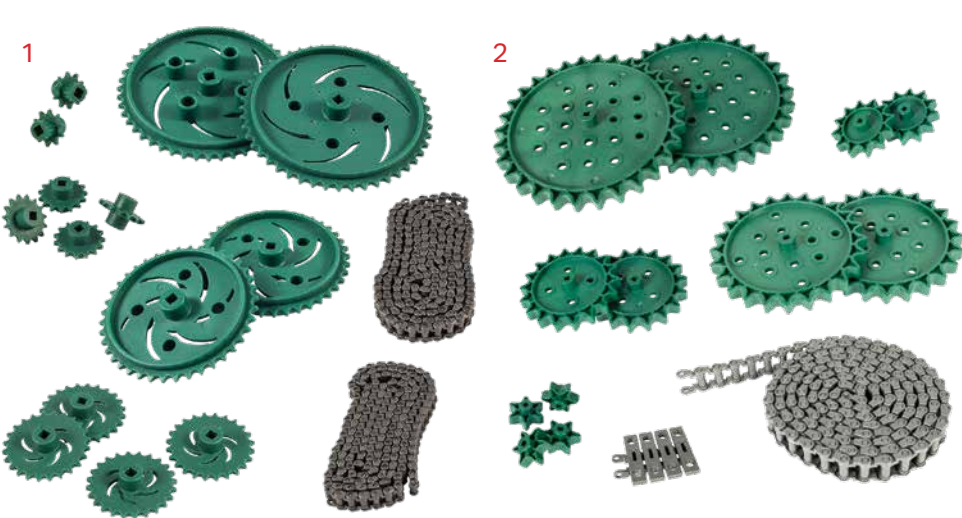


This High Strength Gear Kit included gears designed to handle higher loads. Each of these gears has a wider face width allowing for higher applied loads due to wider teeth.

- Mate with all VEX EDR spur gears
- Metal Square Hole Inserts prevent axles from “stripping”
- Round Hole Inserts enable free spinning idler gears

High Strength Gear Kit	276-2250	\$21 ^{.99}
------------------------	----------	---------------------

Sprockets and Chain



Simply the best way to transfer power over long distances on a VEX EDR robot. Sprockets come in a variety of sizes for different ratio possibilities. Each chain link is also a master link, which allows for quick and painless substitution.

The standard Sprocket & Chain Kit is designed to carry moderate loads, while the High Strength Chain & Sprocket Kit is capable of lifting up 50 pounds!

1 Sprocket & Chain Kit	276-2166	\$32 ^{.99}
2 High Strength Sprocket & Chain Kit	276-2252	\$43 ^{.99}
High Strength Sprocket 6 Tooth (8-Pack)	276-3876	\$14 ^{.49}
High Strength Sprocket 12 Tooth (4-Pack)	276-3877	\$14 ^{.49}
High Strength Sprocket 18 Tooth (4-Pack)	276-3878	\$14 ^{.49}
High Strength Sprocket 24 Tooth (4-Pack)	276-3879	\$14 ^{.49}
High Strength Sprocket 30 Tooth (4-Pack)	276-3880	\$14 ^{.49}
Additional High Strength Chain	276-2172	\$27 ^{.49}

Gear Kit



Contains four sizes of Spur Gears (12-, 36-, 60-, and 84-tooth gears). The 60- and 84-tooth gears have extra mounting holes for attaching metal bars or parts to these gears when using them as part of a turntable system or similar design.

- Create robot transmissions, gearboxes, and gear reductions
- Vary the speed or torque of robot motion systems
- Increase design possibilities for your robots

Gear Kit	276-2169	\$14 ^{.49}
----------	----------	---------------------

Advanced Gear Kit



Contains several gear types designed to help you build advanced mechanical systems.

- Create linear motion with Rack Gears
- Transfer motion 90 degrees with Bevel Gears
- Add a differential to your drivetrain
- Get a large-reduction with Worm Gears

Advanced Gear Kit	276-2184	\$21 ^{.99}
-------------------	----------	---------------------

Rack Gear v2 (16-pack)



Used to turn rotary motion into linear motion.

- Use any VEX EDR spur gear as a pinion
- Stack multiple back to back for longer motions

Rack Gear v2 (16-pack)	276-4782	\$21 ^{.99}
------------------------	----------	---------------------

Intake Rollers



Intake rollers are specifically designed for ball intake systems. The flexible rubber fingers grip the ball. The fingers also deflect, allowing for ball size variation.

- Rubber fingers
- Hard plastic center with square hole

Intake Roller (8-pack)	276-1499	\$14 ^{.49}
------------------------	----------	---------------------

Tank Tread

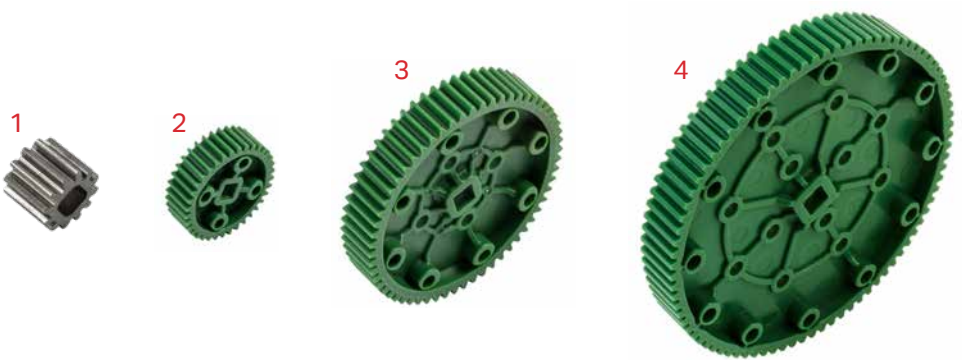


The Tank Tread kit contains over five feet of tank tread. Use this tank tread to build robot tracks which can overcome tough terrain, or build a conveyor belt for scooping up objects. The Tank Tread Upgrade Kit contains soft rubber pads for increased traction and fins to aid conveyor belt mechanisms.

- Climb over obstacles
- Traverse rough terrain or soft surfaces
- Can be used for a robot conveyor belt
- Every section is a master link, create treads of any length

1 Tank Tread Kit	276-2168	\$32 ^{.99}
2 Tank Tread Upgrade Kit	276-2214	\$27 ^{.49}

High Strength Gears



Gears are one of the primary sources of power transmission in VEX EDR. Build mechanisms capable of achieving higher torque or speed than ever before with High Strength Gears - lift heavier loads and survive bigger impacts with the additional gear ratio options provided by the largest high strength gear available.

- Works with the VEX High Strength Gear Kit or any VEX spur gear
- Double-thick face width and ribbing provide added strength
- Metal Square Hole Inserts prevent axles from “stripping”
- Build gearboxes that resist high shock-loads
- Bolt gears together for added strength

1 12T Metal Pinion (12-pack)	276-2251	\$21 ^{.99}
2 36T High Strength Gear (8-pack)	276-5034	\$14 ^{.49}
3 60T High Strength Gear (8-pack)	276-5035	\$16 ^{.99}
4 84T High Strength Gear (4-pack)	276-3438	\$14 ^{.49}

Winch and Pulley Kit



Provides the ability to implement a winch and pulley system and create block and tackle mechanisms that utilize mechanical advantage.

- Lift, lower, hang, drag and more
- Configurable for many applications
- Ratchet and pawl can be engaged to prevent back driving

Winch and Pulley Kit	276-1546	\$16 ^{.99}
----------------------	----------	---------------------

Stay connected with @VEXRobotics!



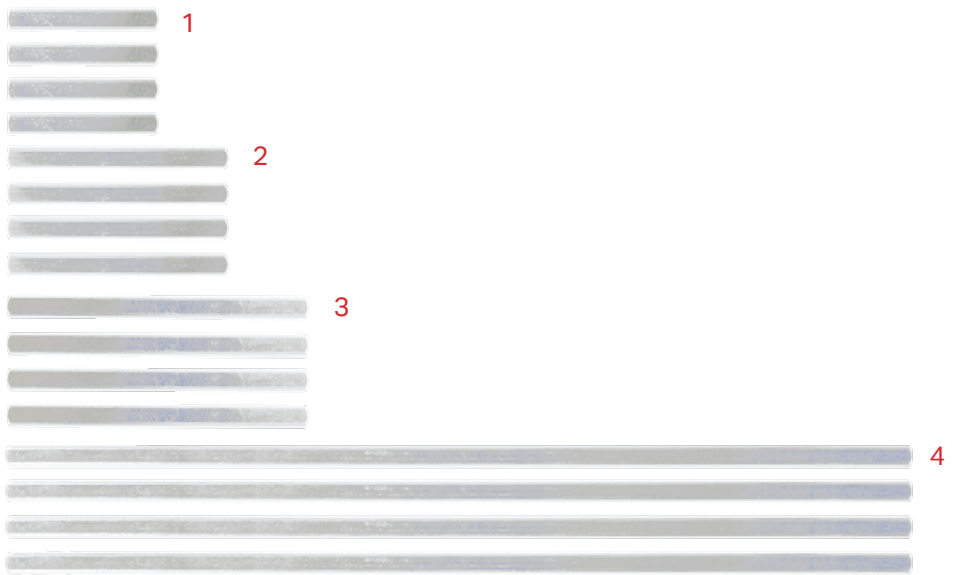
○ Shafts



VEX EDR Square Drive Shafts have rounded corners which allow them to freely spin in a round hole or lock into a square hole. Insert these into a motor to power all of your applications.

1	Drive Shaft 2" & 3" Pack	276-2011	\$5 ^{.99}
2	Drive Shaft 12" (4-pack)	276-1149	\$9 ^{.99}

○ High Strength Shafts



High Strength Shaft Hardware functions similarly to standard 1/8" shaft hardware, just on a larger scale. Use the High Strength Shaft Bearing to allow shafts to turn smoothly, the High Strength Shaft Spacer Kit to position objects on a shaft while reducing friction, and the High Strength Clamping Collar to hold everything in place.

VEX EDR 2", 3", and 4" High Strength Shafts are actually designed about 1 mm shorter than their respective 2", 3", and 4" 8-32 Standoffs.

This means that if you use standoffs to hold together two pieces of metal, the High Strength Shaft can rest on High Strength Shaft Bearings attached to those two pieces without any cutting required.

Removable inserts for High Strength Gears and some wheels that allow for versatility in user application. Switch from a driven gear (square hole) to a free spinning one (round hole) in seconds.

- Free spinning plastic and high strength metal inserts available
- Fits VEX EDR drive shafts (0.125" square bars)

1	High Strength Shaft 2" Long (4-Pack)	276-3440	\$5 ^{.49}
2	High Strength Shaft 3" Long (4-Pack)	276-3522	\$5 ^{.49}
3	High Strength Shaft 4" Long (4-Pack)	276-3523	\$5 ^{.99}
4	High Strength Shaft 12" Long (4-Pack)	276-3524	\$16 ^{.99}

○ Universal Joint (5-pack)



Provide a mechanical link between two intersecting, non-parallel shafts. Each side of the VEX U-Joint includes a socket for a VEX square shaft, and a set screw to hold the shaft in place.

- Create complex robot mechanisms
- Transfer power "around corners" and at angles

Universal Joint (5-pack)	276-2723	\$10 ^{.99}
--------------------------	----------	---------------------

○ Spacers and Washers



A Spacer is used to create a space between two objects, often to properly position them and to eliminate "slop" on shafts. A Washer is used to distribute the load of a threaded fastener, and Teflon washers can be used when low friction is necessary. VEX EDR washers fit on all VEX EDR screws and shafts.

1	Plastic Spacer, 4.6mm (20-pack)	275-2018	\$3 ^{.29}
2	Plastic Spacer, 8mm (20-pack)	275-2019	\$3 ^{.29}
3	Washer, Steel (200-pack)	275-1024	\$5 ^{.49}
4	Washer, Teflon (25-pack)	275-1025	\$5 ^{.49}
5	0.50" OD Nylon Spacer Variety Pack	275-1066	\$5 ^{.49}
6	0.375" OD Nylon Spacer Variety Pack	275-6340	\$5 ^{.49}

○ High Strength Shaft Hardware



High Strength Shaft Hardware functions similarly to standard 1/8" shaft hardware, just on a larger scale. Use the High Strength Shaft Bearing to allow shafts to turn smoothly, the High Strength Shaft Spacer Kit to position objects on a shaft while reducing friction, and the High Strength Clamping Collar to hold everything in place.

VEX EDR 2", 3", and 4" High Strength Shafts are actually designed about 1 mm shorter than their respective 2", 3", and 4" 8-32 Standoffs. This means that if you use standoffs to hold together two pieces of metal, the High Strength Shaft can rest on High Strength Shaft Bearings attached to those two pieces without any cutting required.

1	High Strength Shaft Insert Kit	276-3881	\$10 ^{.99}
2	High Strength Shaft Bearing (10-Pack)	276-3521	\$8 ^{.99}
3	High Strength Shaft Spacer Kit	276-3441	\$10 ^{.99}
4	High Strength Clamping Shaft Collar (10-Pack)	276-3520	\$10 ^{.99}

○ Spacers and Washers



Collars lock to drive shafts, keeping wheels and gears from sliding along the shaft. Standard Shaft Collars are fastened in place using a set screw, while Clamping Shaft Collars use standard VEX EDR button head screws and nuts to maintain a tight lock without scratching or damaging the shaft. Rubber Shaft Collars easily slide onto VEX EDR 0.125" shafts and use friction between to keep wheels and gears in place.

1	Shaft Collar (16-pack)	276-2010	\$8 ^{.99}
2	8-32 x 0.125" Setscrew (32-pack)	276-2385	\$5 ^{.49}
3	Clamping Shaft Collar (10-pack)	276-3891	\$5 ^{.49}
4	Rubber Shaft Collar (30-pack)	228-3510	\$6 ^{.99}
5	Shaft Couplers (5-pack)	276-1843	\$5 ^{.49}

○ Hex Nut Retainers



Assembling a VEX robot just got easier with our Hex Nut Retainers. With a center hole sized to securely fit a Hex Nut, a #8-32 screw can be tightened without the need for a wrench or pliers. When mounted, they provide multiple points of contact on structural components for stability.

1	1-Post Hex Nut Retainer w/ Bearing Flat (10-pack)	276-6481	\$5 ^{.49}
2	1-Post Hex Nut Retainer (10-pack)	276-6482	\$5 ^{.49}
3	4-Post Hex Nut Retainer (10-pack)	276-6483	\$5 ^{.49}

○ Bearings

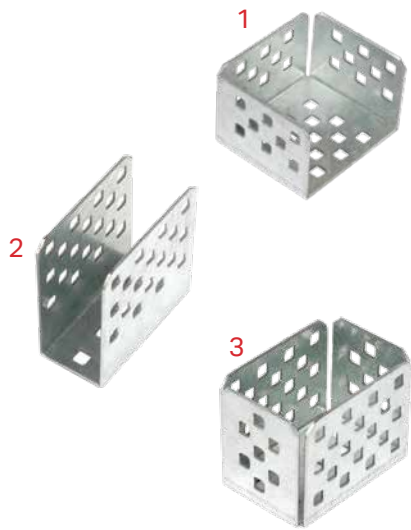


Use bearings to keep your mechanisms and wheels moving smoothly. The Bearing Flat mounts directly on a piece of VEX EDR structure and supports a shaft which runs perpendicular and directly through the structure, while Bearing Blocks support a shaft which is offset either above, below, or to the side of the structure. Reusable Bearing Attachment Rivets make mounting them easy.

Lock Bars allow any VEX EDR component to be "locked" to a shaft so that it will spin with the shaft. The Drive Shaft Bar Lock is a steel version of the Lock Bar.

1	Flat Bearing (10-pack)	276-1209	\$5 ^{.49}
2	Bearing Attachment Rivet (50-pack)	276-2215	\$8 ^{.99}
3	Pillow Block Bearing & Lock Bar Pack	276-2016	\$8 ^{.99}
4	Drive Shaft Bar Lock (8-pack)	275-1065	\$6 ^{.99}

Advanced Gearbox Brackets

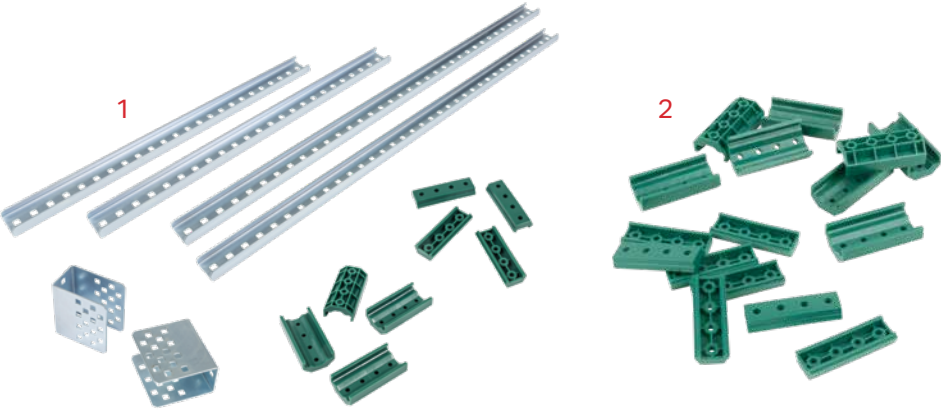


These gearbox brackets provide support for several options of advanced motion, allowing advanced mechanical VEX EDR designers to create new ingenious mechanisms.

- Create Linear Motion with rack gears
- Transfer Motion 90 degrees with bevel gears
- Add a differential to your drivetrain
- Get a high reduction with worm gears

1	Bevel Gearbox Bracket (2-pack)	275-1189	\$10 ^{.99}
2	Rack Gearbox Bracket v2 (2-pack)	276-5771	\$10 ^{.99}
3	Worm Gearbox Bracket (2-pack)	275-1187	\$14 ^{.49}

Linear Motion Kit



The Linear Motion Kit provides a method for VEX builders to create linear mechanisms. Utilize the low friction slide rails for your own mechanisms or combine them with included Rack Brackets and VEX Rack Gears (not included) to build direct driven linear actuators.

- Rails include holes on 0.500" increments
- Two rail lengths included - 12" and 17.5"
- Use with VEX EDR 8-32 hardware (not included)
- Additional Truck Kit contains (16) spare plastic trucks

1	Linear Motion Kit	276-1926	\$27 ^{.49}
2	Linear Motion Additional Truck Kit	276-4489	\$10 ^{.99}

Advanced Mechanics and Motion Kit



Contains a variety of mechanisms to help a robot builder learn about the mechanics of motion. Use them to build examples of worm gears, lead screws, universal joints, bevel gear reductions and rotary cams.

- Create complex robot mechanisms
- Learn advanced mechanics principles

Advanced Mechanics and Motion Kit	276-2045	\$27 ^{.49}
-----------------------------------	----------	---------------------

Turntable Bearing Kit



Provides two options for low friction, high load rotational joints. These are especially well suited for rotational joints with high side load - this kit makes it easy to build a turret on your robot!

- (1) 2.6" diameter Turntable Bearing
- (1) 4.25" diameter Turntable Bearing

Note: 12 tooth pinion gear required (not included)

Turntable Bearing Kit	276-1810	\$21 ^{.99}
-----------------------	----------	---------------------

Single Acting Pneumatic Kits



Pneumatic cylinders use compressed air (rather than motors) to produce motion that rests in one of 2 states: fully extended or fully retracted. Pneumatics Kits 1 and 2 are complete pneumatics systems for use on VEX EDR robots; Kit 1A and 2A add-ons cannot be used without a Kit 1 or 2.

- Uses one VEX EDR Controller I/O port per air cylinder
- Reservoir is filled using a standard tire pump fitting

Uses air pressure to extend the piston and an internal spring to automatically retract the piston.

1	Pneumatics Kit 1 - Single Acting Cylinders	275-0274	\$199 ^{.99}
2	Pneumatics Kit 1A - Single Acting Cylinder Add-On	275-0275	\$64 ^{.99}

Double Acting Pneumatic Kits



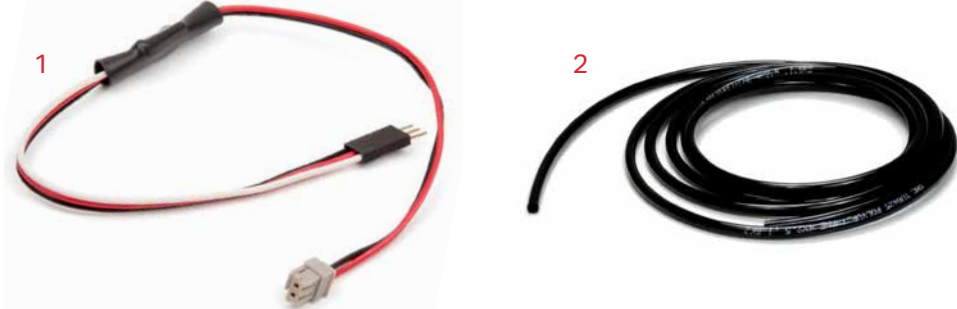
Pneumatic cylinders use compressed air (rather than motors) to produce motion that rests in one of 2 states: fully extended or fully retracted. Pneumatics Kits 1 and 2 are complete pneumatics systems for use on VEX EDR robots; Kit 1A and 2A add-ons cannot be used without a Kit 1 or 2.

- Uses one VEX EDR Controller I/O port per air cylinder
- Reservoir is filled using a standard tire pump fitting

Uses air pressure to both extend and retract the piston, allowing for greater control.

1	Pneumatics Kit 2 - Double Acting Cylinders	275-0276	\$249 ^{.99}
2	Pneumatics Kit 2A - Double Acting Cylinder Add-On	275-0277	\$99 ^{.99}

Pneumatic Accessories

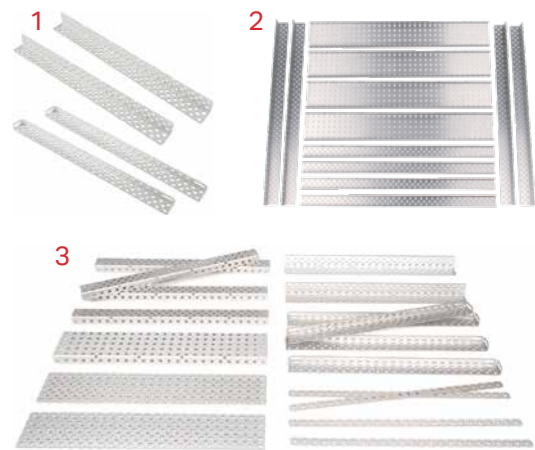


The Pneumatic Solenoid Driver Cable takes a digital On\Off signal from a VEX EDR microcontroller and controls the 5V power applied to a pneumatic solenoid. Extra Pneumatics Tubing can be used for more versatility in design. Both are included in Pneumatics Kits 1 and 2.

1	Solenoid Driver Cable (2-pack)	275-1417	\$32 ^{.99}
2	Pneumatics Tubing (5')	275-0447	\$5 ^{.49}



Aluminum Kits

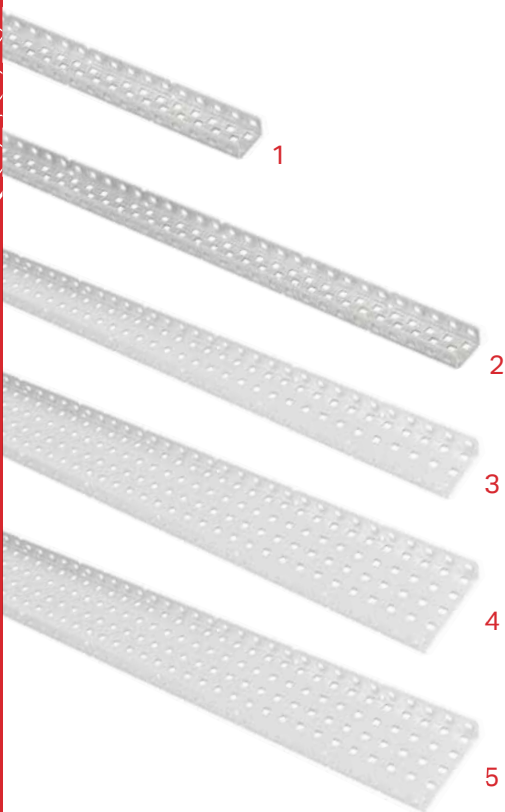


Lighten the total weight of a robot or mechanism while still keeping it strong. VEX aluminum kits contain the same metal components as standard structural kits (C-Channel, Plates, and Bars), at a fraction of the weight for improved robot performance!

- Compatible with all VEX EDR motion and structure components

1	Aluminum Chassis Kit 25x25	276-2319	\$39 ⁹⁹
2	Long Aluminum Structure Kit	275-1410	\$89 ⁹⁹
3	Aluminum Structure Kit	275-1097	\$89 ⁹⁹

Aluminum C-Channels

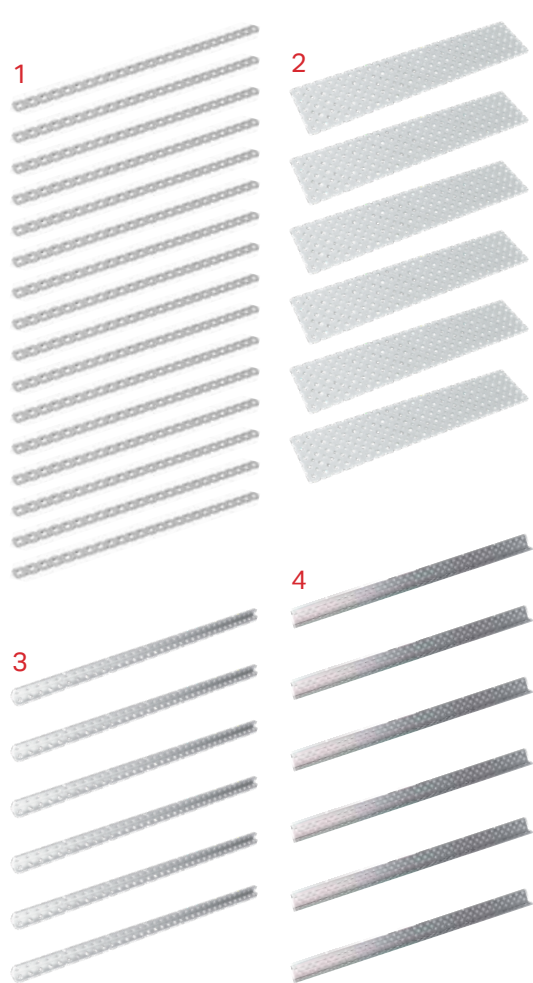


VEX C-channel has holes on 0.500" increments. This structural member's excellent strength and bending resistance is perfect for building robust robots.

- Five sizes available
- Made from 5052-H32 aluminum, 0.064" thick
- Each channel is segmented into cuttable 2.5" pieces

1	C-Channel 1x2x1x25 (6-pack)	276-2288	\$32 ⁹⁹
2	C-Channel 1x2x1x35 (6-pack)	275-2289	\$39 ⁹⁹
3	C-Channel 1x3x1x35 (6-pack)	276-4359	\$39 ⁹⁹
4	C-Channel 1x5x1x25 (6-pack)	276-2290	\$43 ⁹⁹
5	C-Channel 1x5x1x35 (6-pack)	276-2298	\$49 ⁹⁹

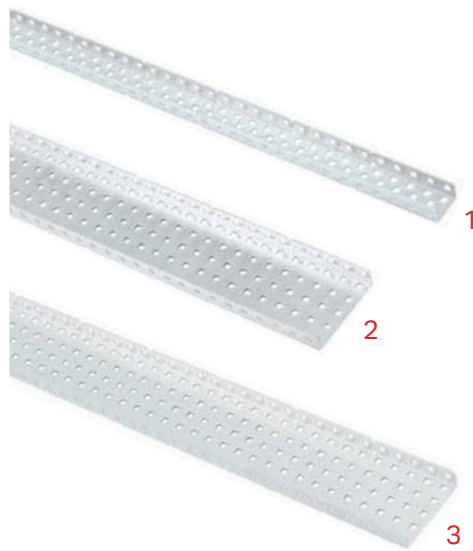
Aluminum Structure



- Made from 5052-H32 aluminum, 0.064" thick
- Wire brushed & clear anodized finish

1	1x25 Aluminum Bar (16-pack)	276-2307	\$32 ⁹⁹
2	5x25 Aluminum Plate (6-pack)	276-2311	\$27 ⁴⁹
3	1x1x35 Aluminum Angle (6-pack)	276-6484	\$26 ⁹⁹
4	2x2x35 Aluminum Angle (6-pack)	276-2304	\$39 ⁹⁹

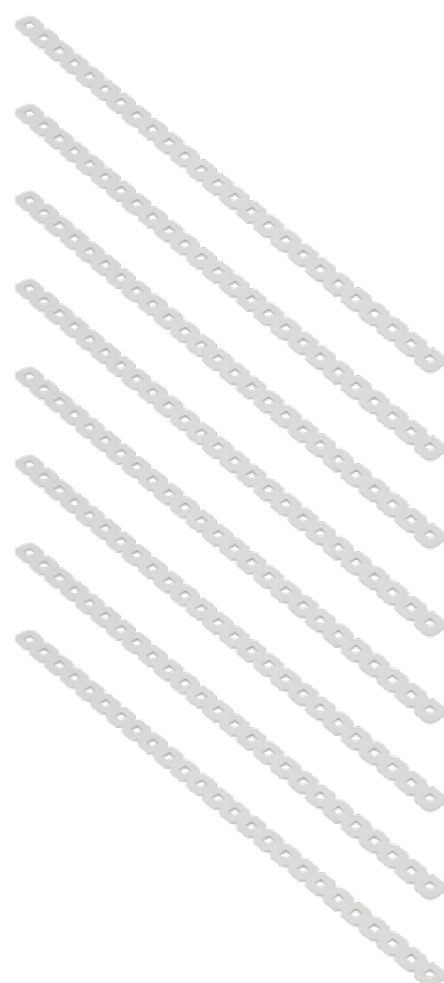
Steel C-Channels



- Three sizes available
- Made from cold rolled steel, 0.046" thick, zinc plated
- Each channel is segmented into cuttable 2.5" pieces

1	C-Channel 1x2x1x35 (2-pack)	276-2906	\$9 ⁹⁹
2	C-Channel 1x5x1x25 (4-pack)	275-1138	\$19 ⁹⁹
3	C-Channel 1x5x1x35 (4-pack)	275-1139	\$21 ⁹⁹

Steel Bar 1x25 (8-pack)



VEX bar with holes on 0.500" increments.

- Made from cold rolled steel, 0.046" thick, zinc plated.
- Can be cut on 0.500" increments.

Bar 1x25 (8-pack)	275-1141	\$14 ⁴⁹
-------------------	----------	--------------------

Steel Plates

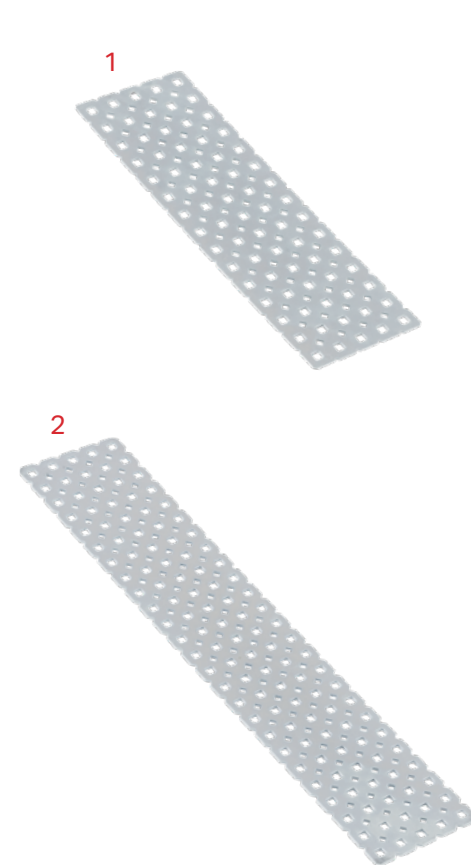
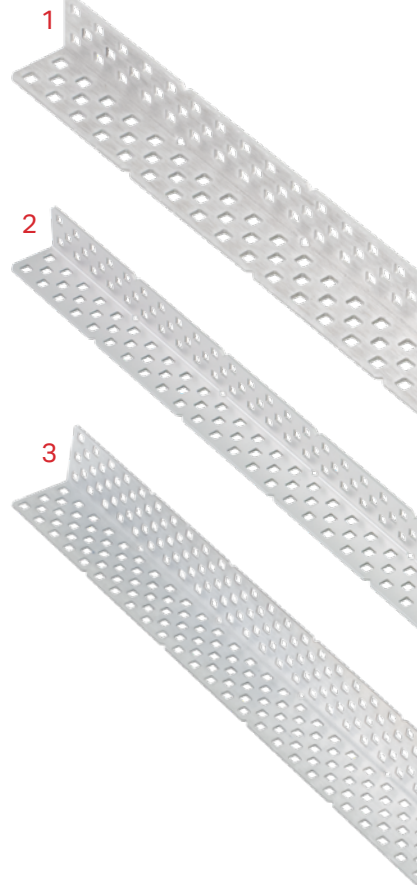


Plate with holes on 0.500" increments and 1/8" diamonds in between. Can be cut on 0.500" increments and used to create custom shapes.

- Available in two sizes
- Made from cold rolled steel, 0.046" thick, zinc plated

1	Plate 15x5 (2-pack)	275-2023	\$5 ⁴⁹
2	Plate 25x5 (4-pack)	275-1140	\$16 ⁹⁹

Steel Angles

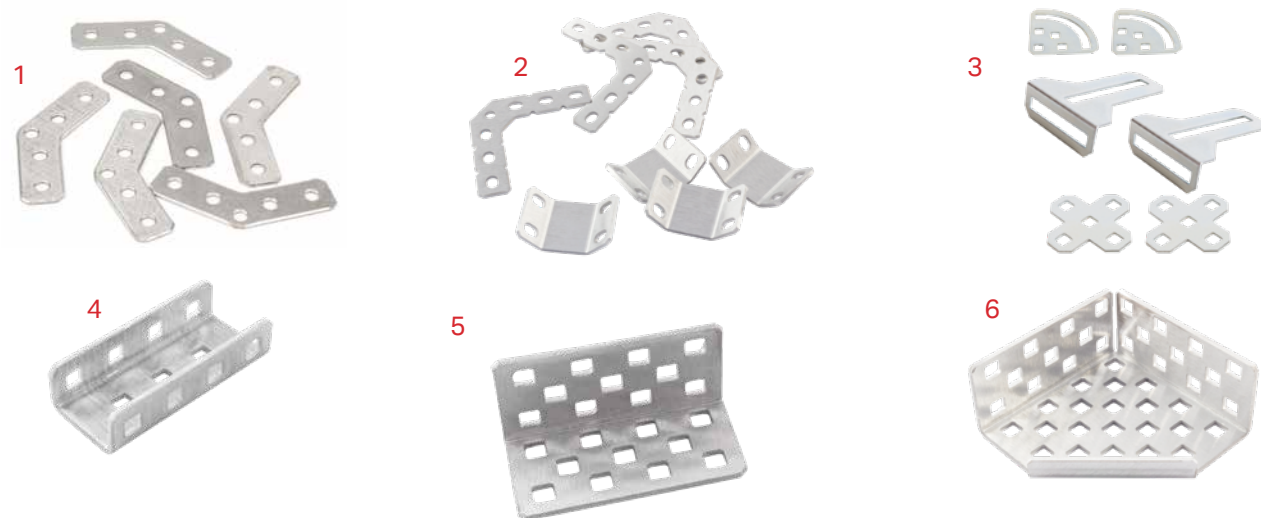


VEX angle without slots, typically used for structural framing.

- Can be cut on 0.500" increments
- Made from cold rolled steel, 0.046" thick, zinc plated
- All items are (4) to a package

1	Angle 2x2x25 (4-pack)	275-1142	\$16 ⁹⁹
2	Angle 2x2x35 (4-pack)	275-1143	\$19 ⁹⁹
3	Angle 3x3x35 (4-pack)	275-1144	\$21 ⁹⁹

Gussets



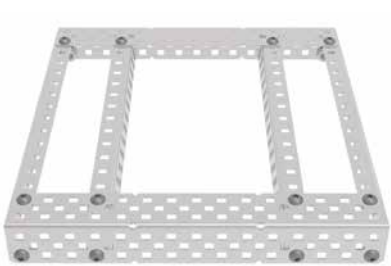
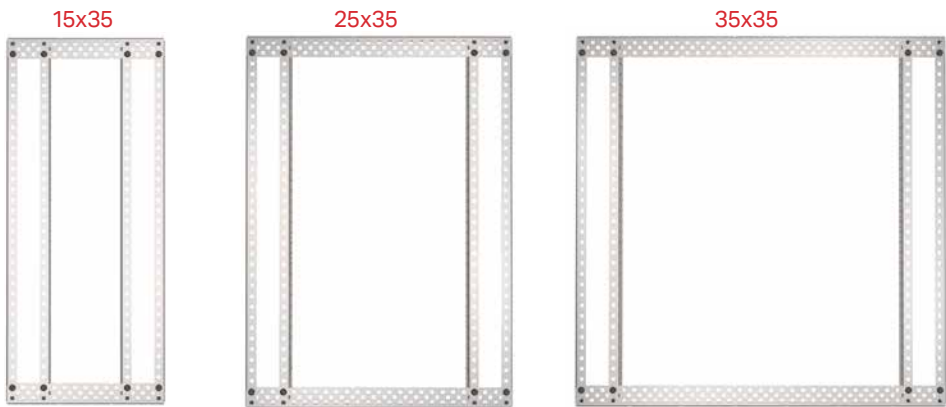
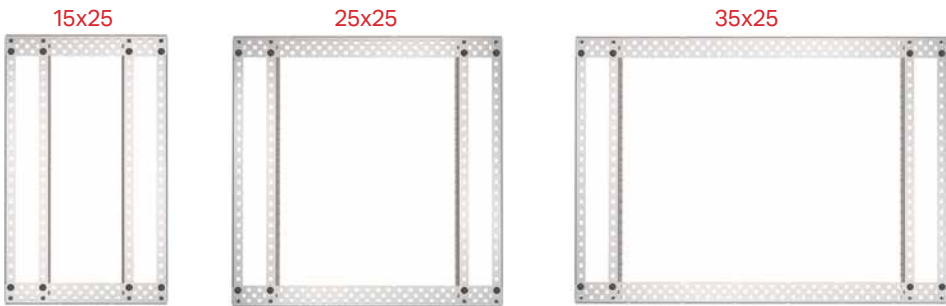
Used to connect pieces of metal and to strengthen your robot's joints.

1	45 Degree Gusset (6-pack)	275-1186	\$5 ⁴⁹
2	90-Degree Gusset Set (4-pack)	276-2577	\$14 ⁴⁹
3	Gusset Pack	276-1110	\$8 ⁴⁹
4	C-Channel Coupler Gusset (8-pack)	276-2575	\$21 ⁹⁹
5	Angle Coupler Gusset (8-pack)	276-2578	\$21 ⁹⁹
6	Angle Corner Gusset (4-pack)	276-2576	\$21 ⁹⁹



QUICK SHOP

○ Chassis Kits



Standard VEX chassis kits include (2) bumpers and (4) rails apiece. The flexibility and variety of design options makes these a great starting point for any mobile robot project.

- Rail mounting locations allow for variable chassis width
- Space between rails is ideal for a protected chain run or gear reduction
- Wheels may be mounted outboard or between the rails for extra support
- Rails sold separately for additional versatility

Chassis Kits		
Chassis Kit, Small 15x16	276-2024	\$21. ⁹⁹
Chassis Kit, Medium 25x25	275-1033	\$24. ⁹⁹
Chassis Kit, Large 35x35	275-1034	\$27. ⁹⁹
Chassis Rails		
Chassis Rail 2x1x25 (4-pack)	275-1145	\$16. ⁹⁹
Chassis Rail 2x1x35 (4-pack)	275-1146	\$19. ⁹⁹

○ Screws



The proverbial glue that holds your robot together. VEX EDR screws come in a multitude of lengths and three standard head sizes, 6-32, 8-32, and T15. There's nothing more frustrating than a stripped screw. With VEX EDR Star Drive Screws, this becomes a thing of the past. These grade 8 screws were designed to withstand a great amount of torque, which allows builders to truly "lock down" their mechanisms. Locking screws have been coated with a thread locker to help keep them locked into place. A locking screw can be installed 10-15 times and still retain a firm lock. Thumbscrews can be tightened/loosened by hand, speeding up robot assembly, and Shoulder Screws are perfect for pivots with minimal slop. Setscrews are used in Shaft Collars and U-Joints to clamp to a shaft.

#6-32 Hex Drive Screws (Use 5/64" Drivers)			#8-32 Star Drive Screws (Use T15 Drivers)		
#6-32 x 1/4" Screw (50-pack)	275-0659	\$5. ⁴⁹	#8-32 x 1/4" Star Drive Screw (100-pack)	276-4990	\$5. ⁴⁹
#6-32 x 1/2" Screw (50-pack)	275-1169	\$5. ⁴⁹	#8-32 x 3/8" Star Drive Screw (100-pack)	276-4991	\$5. ⁴⁹
#6-32 x 1/2" Locking Screw (100-pack)	276-1958	\$10. ⁹⁹	#8-32 x 1/2" Star Drive Screw (100-pack)	276-4992	\$5. ⁴⁹
#8-32 Hex Drive Screws (Use 3/32" Drivers)			#8-32 x 5/8" Star Drive Screw (100-pack)	276-4993	\$6. ⁴⁹
#8-32 x 1/4" Screw (100-pack)	275-1002	\$8. ⁴⁹	#8-32 x 3/4" Star Drive Screw (100-pack)	276-4994	\$6. ⁴⁹
#8-32 x 3/8" Screw (100-pack)	275-1003	\$8. ⁴⁹	#8-32 x 7/8" Star Drive Screw (100-pack)	276-4995	\$7. ⁷⁹
#8-32 x 1/2" Screw (100-pack)	275-1004	\$8. ⁴⁹	#8-32 x 1.000" Star Drive Screw (100-pack)	276-4996	\$7. ⁷⁹
#8-32 x 5/8" Screw (100-pack)	275-1005	\$10. ⁹⁹	#8-32 x 1.250" Star Drive Screw (50-pack)	276-4997	\$5. ⁴⁹
#8-32 x 3/4" Screw (100-pack)	275-1006	\$10. ⁹⁹	#8-32 x 1.500" Star Drive Screw (50-pack)	276-4998	\$5. ⁴⁹
#8-32 x 7/8" Screw (100-pack)	275-1007	\$10. ⁹⁹	#8-32 x 1.750" Star Drive Screw (50-pack)	276-4999	\$6. ⁴⁹
#8-32 x 1.000" Screw (100-pack)	275-1008	\$10. ⁹⁹	#8-32 x 2.000" Star Drive Screw (25-pack)	276-5004	\$5. ⁴⁹
#8-32 x 1.250" Screw (50-pack)	275-1009	\$8. ⁴⁹	#8-32 x 1/4" Locking Star Drive Screw (100-pack)	276-5006	\$10. ⁹⁹
#8-32 x 1.500" Screw (50-pack)	275-1010	\$8. ⁴⁹	#8-32 x 1/2" Locking Star Drive Screw (100-pack)	276-5007	\$10. ⁹⁹
#8-32 x 1.750" Screw (50-pack)	275-1011	\$10. ⁹⁹	Specialty Screws		
#8-32 x 2.000" Screw (25-pack)	275-1012	\$8. ⁴⁹	#8-32 Shoulder Screws (25-pack)	276-1408	\$10. ⁹⁹
#8-32 x 1/4" Locking Screw (100-pack)	275-1260	\$21. ⁹⁹	1/2" Thumbscrew (50-pack)	275-1485	\$10. ⁹⁹
#8-32 x 1/2" Locking Screw (100-pack)	275-1261	\$21. ⁹⁹			

○ #8-32 Nuts

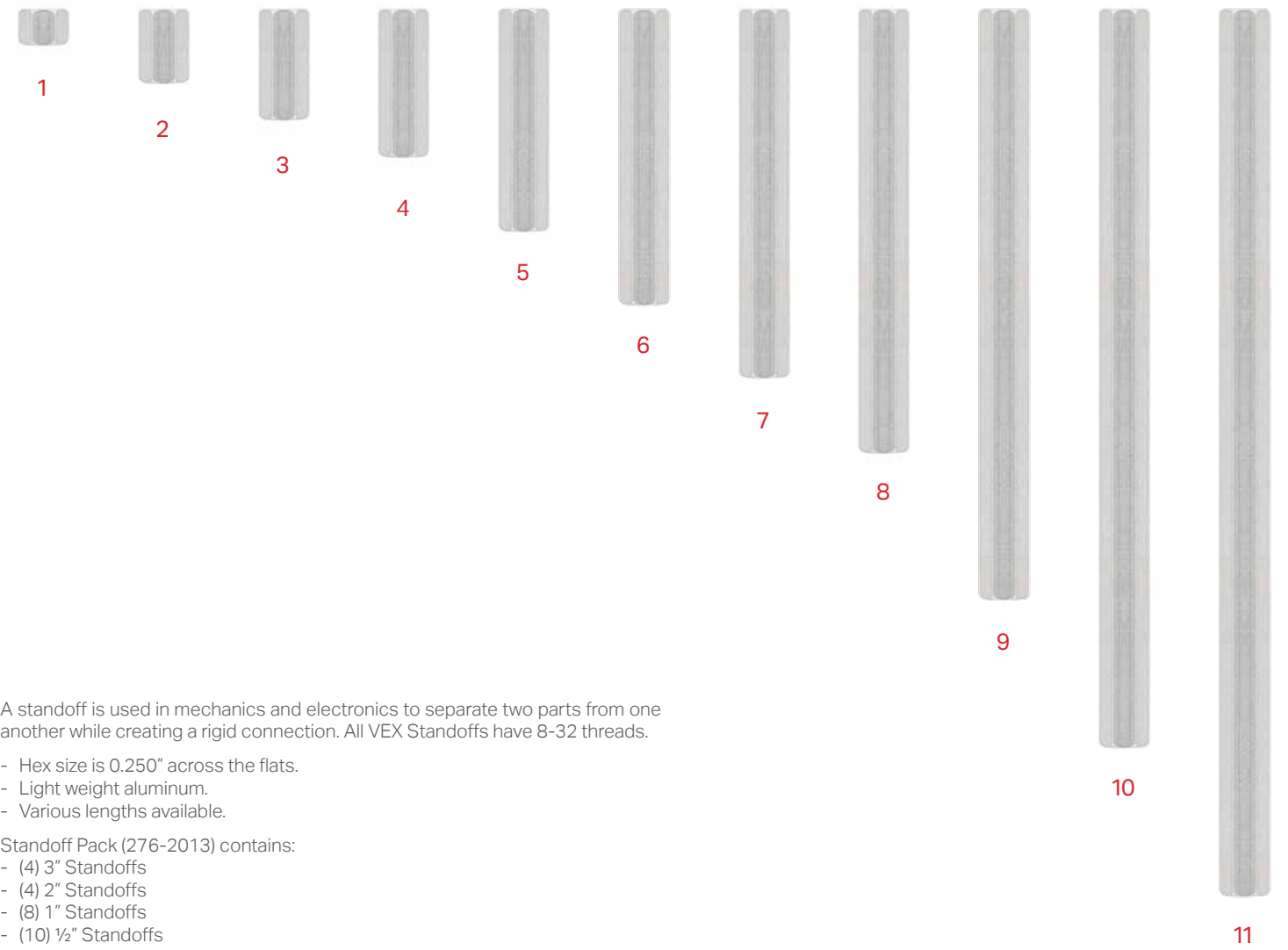


A hardware fastener with a threaded hole. All VEX nuts are 8-32 threads.

- **Keps** nuts have an external tooth lock washer and are strong while still being removable
- **Nylock** nuts have an internal nylon lock that makes it perfect for strong, permanent connections
- **Hex** nuts are non-locking and are great for quick prototyping

1	#8-32 Keps Nut (100-pack)	275-1026	\$3. ²⁹
2	#8-32 Nylock Nut (100-pack)	275-1027	\$4. ³⁹
3	#8-32 Hex Nut (100-pack)	275-1028	\$3. ²⁹

#8-32 Standoffs



A standoff is used in mechanics and electronics to separate two parts from one another while creating a rigid connection. All VEX Standoffs have 8-32 threads.

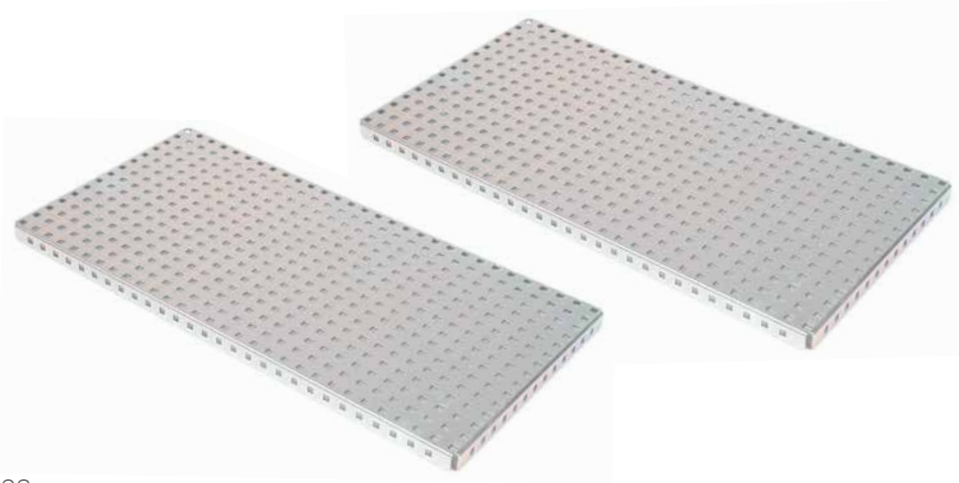
- Hex size is 0.250" across the flats.
- Light weight aluminum.
- Various lengths available.

Standoff Pack (276-2013) contains:

- (4) 3" Standoffs
- (4) 2" Standoffs
- (8) 1" Standoffs
- (10) 1/2" Standoffs

1	1/4" Standoff (10-pack)	275-1013	\$3 ^{.29}
2	1/2" Standoff (10-pack)	275-1014	\$3 ^{.29}
3	3/4" Standoff (10-pack)	275-1015	\$4 ^{.39}
4	1.00" Standoff (10-pack)	275-1016	\$4 ^{.39}
5	1.50" Standoff (10-pack)	275-1017	\$8 ^{.99}
6	2.00" Standoff (10-pack)	275-1018	\$8 ^{.99}
7	2.50" Standoff (4-pack)	275-1019	\$6 ^{.49}
8	3.00" Standoff (4-pack)	275-1020	\$7 ^{.79}
9	4.00" Standoff (4-pack)	275-1021	\$8 ^{.99}
10	5.00" Standoff (4-pack)	275-1022	\$9 ^{.99}
11	6.00" Standoff (4-pack)	275-1023	\$10 ^{.99}
	Standoff Pack	276-2013	\$17 ^{.49}

Base Plate 30x15 (2-pack)



Designed to serve as a foundation for a variety of robotics applications. Use them as a base to create a large stationary robotic arm, interlock them to build larger manufacturing systems, or even use them as structural pieces in large-scale robotic applications.

- (2) Base Plates included
- 15-holes wide x 30-holes long
- Made from cold rolled steel, 0.046" thick, zinc plated

Base Plate 30x15 (2-pack)	276-1341	\$32 ^{.99}
---------------------------	----------	---------------------

#8-32 Couplers



The #8-32 Coupler is used to connect multiple threaded beams to each other and create custom length standoffs.

- Double up standoffs
- Allen socket in one end (Star Drive version available)
- 1/2" and 1" lengths

Hex Drive Couplers			
1	#8-32 x 0.500" Hex Drive Coupler (25-pack)	275-1000	\$3 ^{.29}
2	#8-32 x 1.000" Hex Drive Coupler (25-pack)	275-1001	\$5 ^{.49}
Star Drive Couplers			
3	#8-32 x 0.500" Star Drive Coupler (25-pack)	276-4989	\$2 ^{.19}
4	#8-32 x 1.000" Star Drive Coupler (25-pack)	276-4988	\$3 ^{.29}

Rubber Link (4-pack)



A flexible link used to create joints, springs, or to provide shock absorption.

- Flexible joints between standoffs or metal
- Add spring force to your design
- Provide shock absorption for delicate parts

Rubber Link (4-pack)	275-1029	\$8 ^{.49}
----------------------	----------	--------------------

Hinge (2-pack)

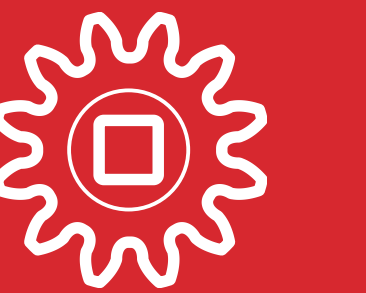
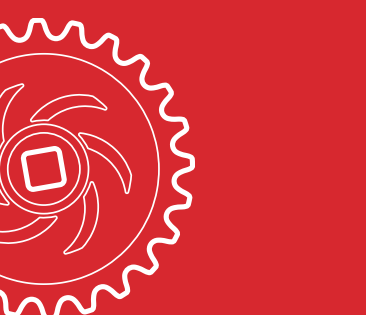


Simple pivoting joint with 265 degree movement.

- 2.5" long x 1.3" wide
- Standard VEX holes

Hinge (2-pack)	275-1272	\$10 ^{.99}
----------------	----------	---------------------





Tools



The Tool Kit contains all of the tools you will need to build with VEX EDR. The Open End Wrench fits VEX EDR nuts and standoffs, while the Hex Keys fit screws and shaft collars. The Performance Tool Kit contains tools that make working on your VEX EDR robot easier. If you're using Star Drive screws or couplers, don't forget to pick up Star Drive Keys or Screwdrivers to go along with them!

1	Tool Kit	276-1382	\$3 ²⁹
2	Performance Tool Kit	276-1645	\$43 ⁹⁹
3	Tool Kit v2	276-5010	\$8 ⁹⁹
4	Open End Wrench (12-pack)	276-4350	\$32 ⁹⁹
	3/32" Hex Keys (8-pack)	275-1030	\$5 ⁷⁹
	5/64" Hex Keys (8-pack)	275-1031	\$5 ⁷⁹
	T15 Star Drive Keys (8-pack)	276-5011	\$8 ⁹⁹
	T8 Star Drive Keys (8-pack)	276-5012	\$8 ⁹⁹
	T15 Star Screwdriver (5-pack)	276-5236	\$16 ⁹⁹
	T8 Star Screwdriver (5-pack)	276-5013	\$16 ⁹⁹

Anti-Slip Mat (2-Types)



Cuttable and compressible high friction mats. Use for adding grip, friction, or padding.

- Available in two types, thin or thick
- Size is 12" x 15"

1	Thin Anti-Slip Mat	275-0121	\$2 ⁷⁵
2	Thick Anti-Slip Mat	275-0120	\$2 ⁷⁵

Robotics Engineering Notebook



Use the Robotics Engineering Notebook to document the design, construction and iteration of a classroom or competitive robot.

- (130) Blank Entry pages
- 3-hole drilled for binder storage
- Commonly used formulas and rulers available for easy reference

Robotics Engineering Notebook	276-3023	\$10 ⁹⁹
-------------------------------	----------	--------------------

Cinch Strap (5-pack)



Great for quickly mounting objects. Wrap the Cinch Strap around the object you want mounted, loop it through the buckle, and then back onto itself for a secure hold using VELCRO® brand hook and loop fastener. The buckle allows the user to "cinch" the strap tight around the application.

- Quickly mount an object
- Adjustable and reusable
- Secure holding circumference approximately 4 to 7 inches

Cinch Strap (5-pack)	275-1258	\$10 ⁹⁹
----------------------	----------	--------------------

Adhesive Foam



1/4" thick foam with adhesive on one side that can be used for robot bumpers, vibration isolation, accumulator backing, and any other applications requiring compressive padding.

- 1" wide x 0.250" thick
- 60" long (cuts with scissors)
- Adhesive backed

Adhesive Foam	275-1254	\$10 ⁹⁹
---------------	----------	--------------------

Safety Glasses



- Protect your eyes
- Lightweight frame and lens
- Scratch and impact resistant

Safety Glasses	276-2175	\$8 ⁹⁹
----------------	----------	-------------------

Latex Tubing (10')



This VEX tubing can stretch up to 3 times its length and still spring back to its original shape. VEX Latex Tubing is great for any application on a VEX robot requiring spring loading.

- Sold in two 5' lengths
- 35A durometer Latex
- Great for heavy lifting

Latex Tubing (10')	275-1262	\$10 ⁹⁹
--------------------	----------	--------------------

VELCRO® Brand ONE-WRAP (5')

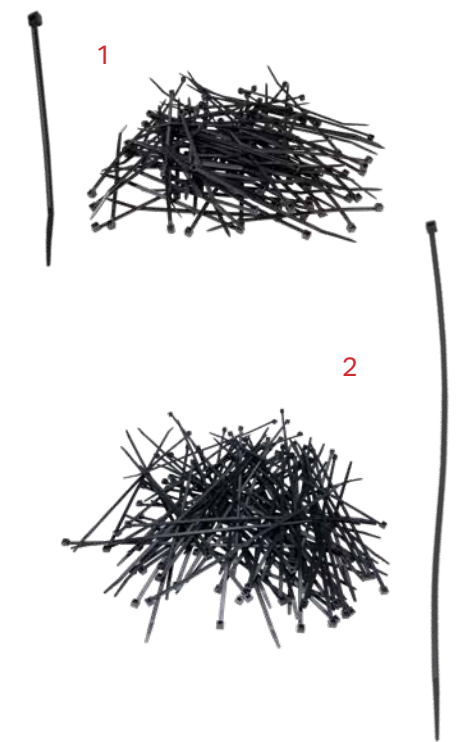


VELCRO® brand ONE-WRAP® that can be used to attach a light object. This wrap comes with Hook on one side and Loop on the other so that it attaches back to itself for an easy and secure closed loop.

Note: Not legal for use in the VEX Robotics Competition.

VELCRO® Brand ONE-WRAP® (5')	275-1259	\$5 ⁴⁹
------------------------------	----------	-------------------

Zip Ties



Can be used to hold together and manage cables, or to attach larger objects (like pneumatic cylinders) to metal.

1	4" Zip Ties (100-pack)	276-1032	\$5 ⁴⁹
2	11" Zip Ties (100-pack)	275-0125	\$7 ⁷⁹

Rubber Bands



VEX Synthetic Rubber Bands have dozens of uses on a robot. Their spring-like properties make them perfect for latches, triggers, and return mechanisms.

- #32 rubber bands are 3" x 1/8"
- #64 rubber bands are 3.5" x 1/4"

Latex Free Rubber Band #32 (20-pack)	275-1089	\$1 ⁶⁴
Latex Free Rubber Band #64 (10-pack)	276-3990	\$3 ²⁹
Silicone Rubber Band #32 (10-pack)	228-6633	\$7 ⁹⁹
Silicone Rubber Band #64 (10-pack)	228-6634	\$5 ⁷⁹

VELCRO® Brand Adhesive Strip (5')



This adhesive VELCRO® Brand product has an adhesive backing so it can be attached directly to metal to hold a lightweight object like a battery, create a trap door, or build a detachable part.

Note: Not legal for use in the VEX Robotics Competition.

- Adhesive backing
- Attach a light object like a battery
- Build a trap door or a detachable part

VELCRO® Brand Adhesive Strip	275-1257	\$10 ⁹⁹
------------------------------	----------	--------------------

Competition Products

○ VEX Robotics Competition Trophies



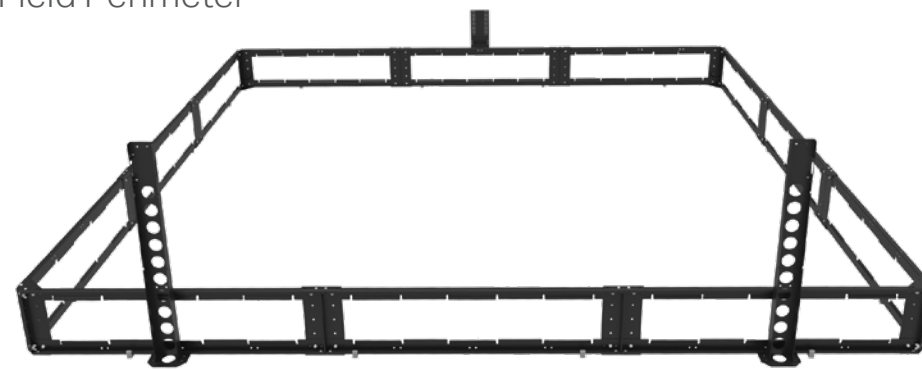
Looking to purchase extra trophies for your teammates, schools or sponsors? 10" and 12" trophies are available for all of the standard VRC awards given out at tournaments.

NOTE: The Award Plate and the Award Date Plate are shipped separately. For complete trophies, be sure to order both the necessary Award Plates and Award Date Plates.

- Official VEX Trophies
- Award Plates with a variety of awards

1	10" VRC Trophy Pack (Award Plate not included)	276-1309	\$39 ⁹⁹
2	12" VRC Trophy Pack (Award Plate not included)	276-1310	\$44 ⁹⁹
	Award Plate "Excellence"	276-1280	\$5 ⁹⁹
	Award Plate "Tournament Champion"	276-1281	\$5 ⁹⁹
	Award Plate "Tournament Finalist"	276-1282	\$5 ⁹⁹
	Award Plate "Robot Skills Champion"	276-1283	\$5 ⁹⁹
	Award Plate "Robot Skills 2nd Place"	276-1284	\$5 ⁹⁹
	Award Plate "Think"	276-1287	\$5 ⁹⁹
	Award Plate "Create"	276-1288	\$5 ⁹⁹
	Award Plate "Build"	276-1289	\$5 ⁹⁹
	Award Plate "Amaze"	276-1290	\$5 ⁹⁹
	Award Plate "Innovate"	276-1291	\$5 ⁹⁹
	Award Plate "Teamwork"	276-1292	\$5 ⁹⁹
	Award Plate "Educate"	276-1294	\$5 ⁹⁹
	Award Plate "Future"	276-1295	\$5 ⁹⁹
	Award Plate "Judge's Award"	276-1296	\$5 ⁹⁹
	Award Plate "Energy"	276-1297	\$5 ⁹⁹
	Award Plate "Sportsmanship"	276-1298	\$5 ⁹⁹
	Award Plate "Service"	276-1299	\$5 ⁹⁹
	Award Plate "Community"	276-1300	\$5 ⁹⁹
	Award Plate "Design"	276-1301	\$5 ⁹⁹
	Award Plate "Promote"	276-1302	\$5 ⁹⁹
	Award Plate "Invent"	276-1303	\$5 ⁹⁹
	Award Plate "Mentor of the Year"	276-1304	\$5 ⁹⁹
	Award Plate "Teacher of the Year"	276-1305	\$5 ⁹⁹
	Award Plate "Volunteer of the Year"	276-1306	\$5 ⁹⁹
	Award Plate "Partner of the Year"	276-1307	\$5 ⁹⁹
	Blank Award Plate	276-1308	\$5 ⁹⁹

○ Competition Field Perimeter

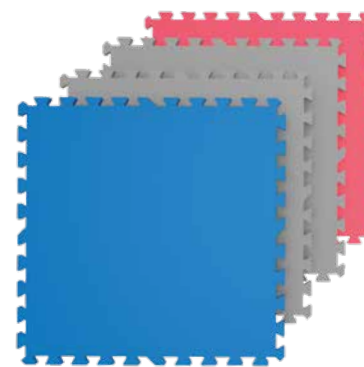


The official VEX Robotics Competition field is set up on a foam surface with a sheet-metal and lexan perimeter frame. Inside this perimeter, game-specific elements can be added.

- The Competition Field Perimeter Kit includes ALL parts and lexan required for frame assembly and two driver-control posts, and does NOT include Field Tiles or electronics
- Spare components available separately

Competition Field Perimeter Kit	278-1501	\$799 ⁹⁹
Spare Competition Field Wall Gusset	275-1182	\$10 ⁹⁹
Spare Competition Field Corner Gusset	275-1183	\$10 ⁹⁹
Spare Competition Field Hardware	275-1185	\$10 ⁹⁹
Spare Competition Field Lexan	275-1202	\$16 ⁹⁹
Spare Competition Field Control Post	275-1208	\$39 ⁹⁹
Spare Competition Field Side Panel	276-3295	\$54 ⁹⁹
Field Perimeter Rubber Foot (20-pack)	276-5156	\$10 ⁹⁹
Competition Field Corner Bracket (4-pack)	276-4604	\$43 ⁹⁹

○ Competition Field Tile Kit



Comes with enough 2' x 2' interlocking foam tiles to fill one standard sized VEX Robotics Competition field.

- (36) Grey
- (2) Red
- (2) Blue

Competition Field Tile Kit	278-1502	\$229 ⁹⁹
----------------------------	----------	---------------------

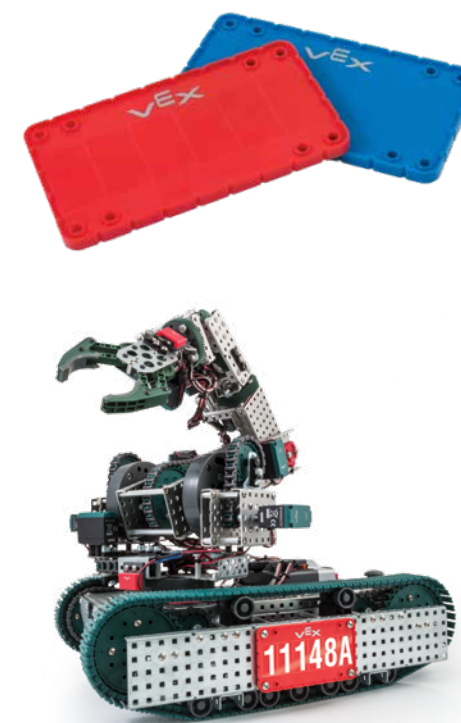
○ Competition Field Corner Bracket (4-pack)



Replacements for the "top and bottom" plates which join the corners of the VEX Robotics Competition Field Perimeter Kit.

Competition Field Corner Bracket (4-pack)	276-4604	\$43 ⁹⁹
---	----------	--------------------

○ VRC License Plate Kit



License plates and identification numbers for teams competing in the VEX Robotics Competition.

- (2) Blue VRC License Plate
- (2) Red VRC License Plate
- (4) VRC License Plate Number Sheet
- (2) VRC License Plate Alphabet Sheet
- Red & blue colors serve as alliance indicators as well as ID plates
- Attaches using standard VEX EDR screws and nuts or VEX IQ pins
- Plates come blank and are fully customizable

Note: Mounting hardware not included.

VRC License Plate Kit	276-3938	\$5 ⁴⁹
-----------------------	----------	-------------------

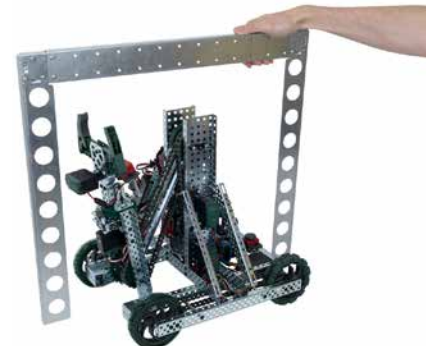
○ VEX Competition Field Monitor Stand



This bracket allows you to mount an LCD monitor onto the VEX field perimeter, either on a corner or at the center of a wall panel.

Competition Field Monitor Stand	276-1572	\$43 ⁹⁹
---------------------------------	----------	--------------------

○ On-Field Robot Expansion Sizing Tool



Use this product to inspect whether a VRC Robot fits into the starting configuration of 18" while not exceeding the maximum expansion limit of 36".

On-Field Robot Sizing Tool	276-5942	\$43 ⁹⁹
----------------------------	----------	--------------------



QUICK SHOP

o Notes

This image shows a full page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. In the top-left corner, there is a small red circle followed by the word "Notes". The rest of the page is empty.

Notes

Sales and Distribution



USA Main Office

VEX Robotics, Inc.
6725 W. FM 1570
Greenville, TX 75402
United States

email sales@vexrobotics.com
phone (+1) 903-453-0802

Asia-Pacific

Innovation First Trading SARL
Suite 1006, Chinachem Golden Plaza
77 Mody Rd., Tsim Sha Tsui East
Kowloon, Hong Kong

email ap-sales@vexrobotics.com
phone +852-2152-0727

Australia & New Zealand

Innovation First Trading SARL
16 Waddikee Rd.
Lonsdale, SA, 5160
Australia

email auinfo@vexrobotics.com
phone +61 08 8326 5500

Canada

Innovation First Trading, Inc.
940 Brock Rd. Unit #9
Pickering, Ontario
L1W 2A1
Canada

email casales@vexrobotics.com
phone 905-492-2099

China

Innovation First International (Wuhan) Limited
Suite 4301, Zheshang International Building
718 Jianshe Avenue
Jiangan, Wuhan
Hubei, China 430014

email china@vexrobotics.com
phone +86(27)8860 6608

Europe

Innovation First Trading SARL
Parc Logistique Eurohub Sud
3434 - Dudelange, Luxembourg

email eusales@vexrobotics.com
phone +44 1925 251038

Middle East & North Africa

Innovation First International (AU) Pty Ltd - Dubai Branch
Office/Suite 804, 8th Floor, Building 2
Bay Square, Business Bay
Dubai
UAE

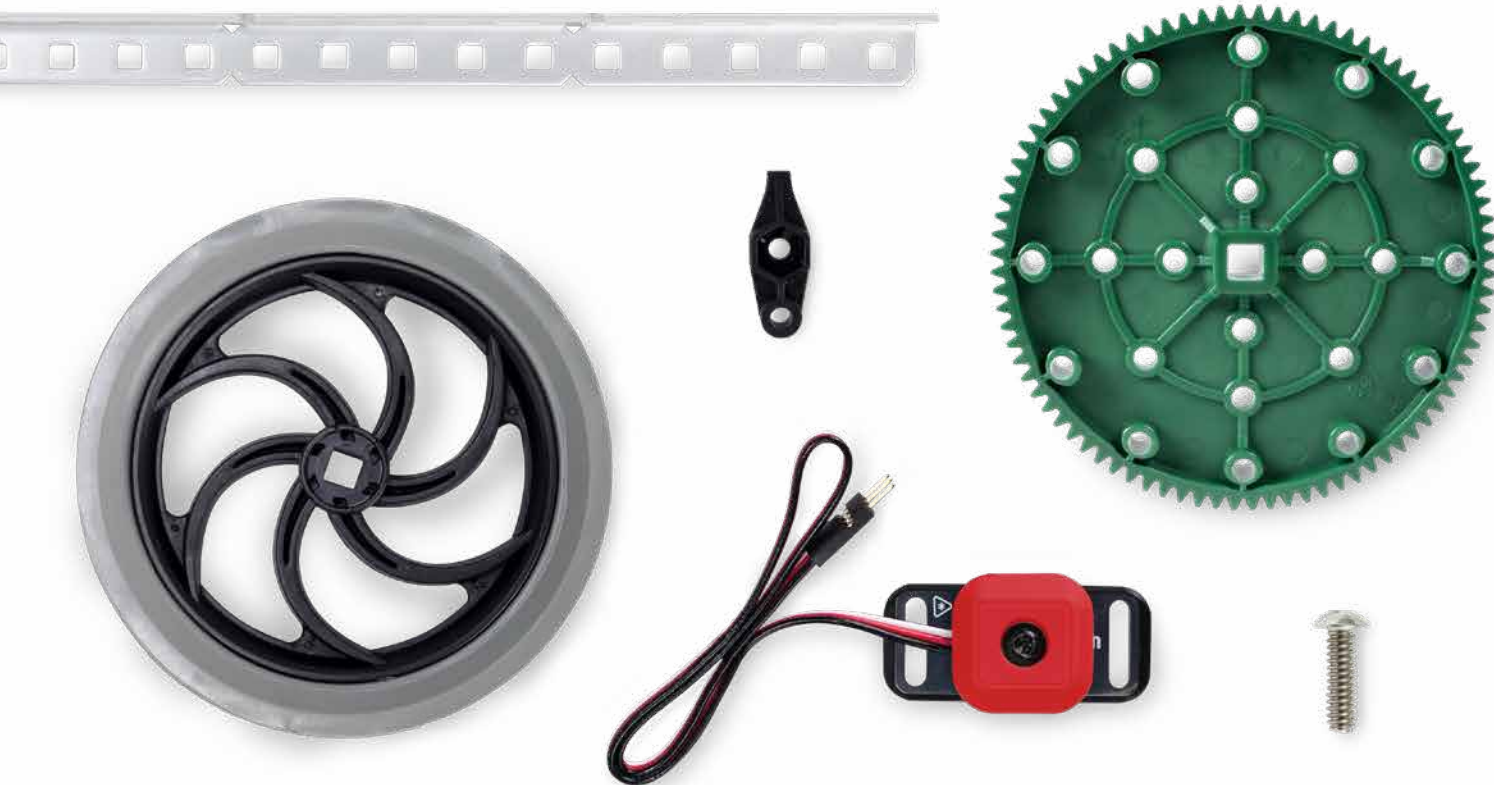
email menasales@vexrobotics.com
phone +971 4 559 6204

United Kingdom

Innovation First Trading SARL
6 Melford Court
Hardwick Grange
Warrington WA1 4RZ
United Kingdom

email eusales@innovationfirst.com
phone +44 1925 251038

All prices shown are in US Dollars and valid for US customers only. International pricing and availability varies by location.



Browse more **products**, **builds**, **educational curriculum**,
and **competition information** at **vexedr.com**



5432



A SUBSIDIARY OF
INNOVATION FIRST
INTERNATIONAL

Printed in China. VEX and VEX Robotics are trademarks or service marks of Innovation First International, Inc. Copyright © 2002-2019. All Rights Reserved. VEX Robotics, Inc. is a subsidiary of Innovation First International, Inc. All other product names/marks of others are the property of their respective owners.