

# Robotics Curricula Comparison

Which one is right for you?

With three different custom tailored VEX Robotics curricula from which to choose, the decision can be tough.

The chart below highlights the main differences between the material available from leading experts in technical education.

**intelitek**  
REC VEX®  
Curriculum

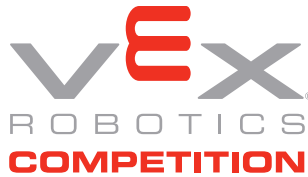
**CarnegieMellon  
Robotics Academy**  
Robomatter VEX®  
Curriculum 2.0

**Autodesk**  
VEX® Curriculum

Pricing	\$1295.00 Semester 1 classroom license. \$1995.00 Semester 2 classroom license.	\$499.00 Classroom license. The whole curriculum is posted online making it easy to assign homework or classroom assignments.	\$199.99 for a single license. Included FREE with each VEX Classroom Lab Kit purchase.
Instructional Units	Semester 1: 6 Units, 38 activities. Semester 2: 6 Units, 26 activities. For use with VEX Starter Kit and Programming Kit or VEX Classroom Lab Kit.	12 Units in 7 sections (for use with VEX Starter kit) or 16 Units in 7 sections (for use with VEX Starter kit plus Programming kit).	17 Units with 4 phases per unit. For use with VEX Classroom Lab Kit or equivalent equipment.
Online Demos & Samples	Outlines and online demo available. <a href="http://www.intelitek.com/REC">www.intelitek.com/REC</a>	The entire VEX curriculum 2.0 plus detailed teacher-created curriculum guides, discussion boards and more are available for review at <a href="http://www.vexcurriculum.com">www.vexcurriculum.com</a>	PDF samples available. <a href="http://www.vexrobotics.com/vex-education.shtml">http://www.vexrobotics.com/vex-education.shtml</a>
Mechanisms & Mechanical Concepts	Extensive.	Yes.	Extensive.
Electronic Sensor Use	Wide variety of sensor use tied to programming instruction.	Wide variety of sensor use tied to programming instruction.	Bumper and limit switches only.
Programming	Yes. EasyC V2 & easyC PRO.	Yes. Robot C. EasyC version available.	No.
Applied STEM Knowledge & Skills	Extensive.	Extensive.	Extensive.
Vocabulary Terms	Yes.	Yes.	Yes.
CAD	Only available with year two curriculum, that includes VEX and non-VEX robotics activities.	All VEX parts available in SolidWorks and Autodesk format.	Extensive. Autodesk Inventor Integration.
National Standards Mapping	Yes. Ability to map to local standards.	Yes.	Yes.
Assessments & Rubrics	Yes.	Yes.	Yes.

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The VEX Robotics Competition offers unique and challenging team-based games that put high school and middle school students' engineering and technology skills to the test. Students, with guidance from teachers and mentors, collaborate to build the most innovative robots possible and work together during competitions to obtain the most points possible. In addition to having a great time and building amazing robots, through their participation in the VEX Robotics Competition and their work within their team, students learn many academic and life skills. Local VEX Robotics competitions are

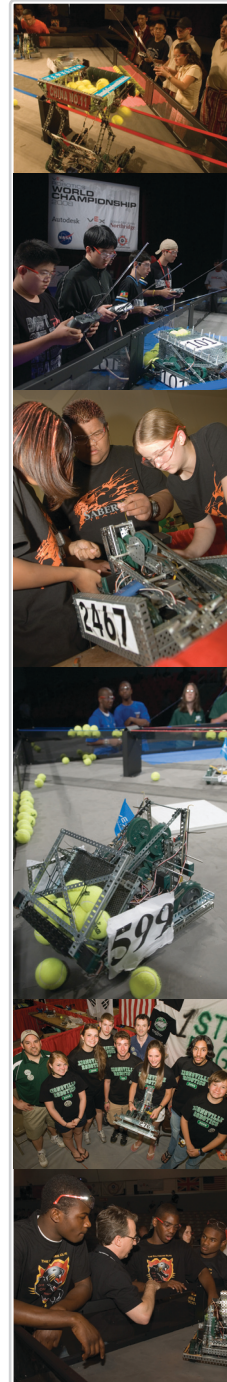


The competition floor at the 2008 VEX Robotics World Championship.

held in many different cities, states and countries. Visit [RobotEvents.com](http://RobotEvents.com) to find the date and location of a VEX competition near you. Teams can register online to get an official team number, Team Welcome Kit and register for VEX Robotics Competition events.

Top teams from around the world participating in local, regional and national VEX Robotics Competitions will qualify for VEX Robotics international competitions and the VEX Robotics World Championship event held each Spring.

For more information about the VEX Robotics Competition and the VEX Robotics Design System, including various animations, videos, pictures and results from past VEX Robotics Competition events, visit [VEXROBOTICS.com](http://VEXROBOTICS.com).

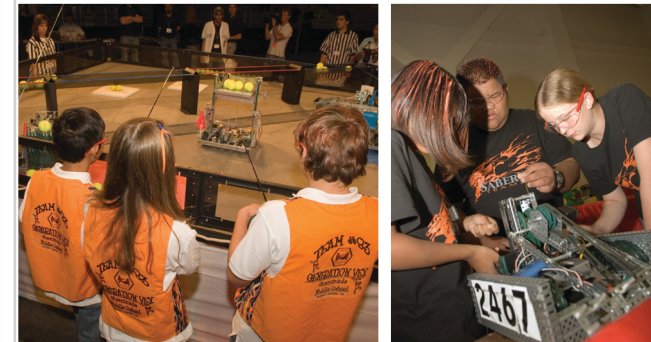
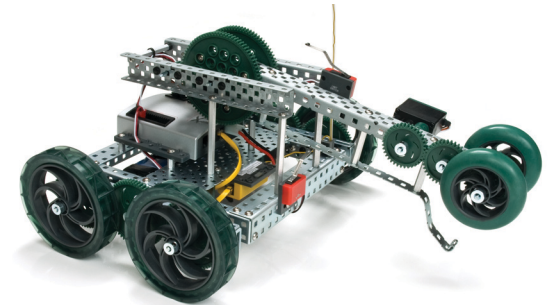


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ROBOTICS DESIGN SYSTEM

Think. Create. Build. Amaze. Vex.



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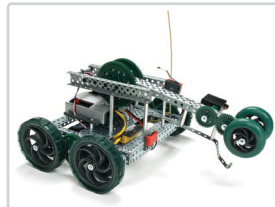


A product of Innovation First.



The VEX Robotics Design System offers students a new and exciting platform for learning about areas rich with career opportunities spanning science, technology, engineering and math (STEM). These are just a few of the many fields students can explore by creating with VEX technology. Beyond science and engineering principles, a VEX Robotics project encourages teamwork, leadership and problem solving among groups. It also allows educators to easily customize projects to meet the level of students' abilities.

The affordable VEX platform is expanding rapidly and is now found in middle schools, high schools and university labs around the globe. Curricula based on VEX are currently available from respected education specialists Intelitek, Carnegie Mellon University and Autodesk.



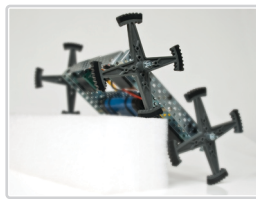
Protobot is the featured robot in our Classroom Lab Kit.

The heart of the VEX Robotics Design System is a programmable robot microcontroller. Motors, servos and sensors plug easily into the VEX brain. A system of structural metal and fasteners allow builders to quickly prototype a variety of robot designs and mechanisms. A large selection of gears, wheels, chain, sprockets and tank treads allow endless combinations to propel robots and manipulators.

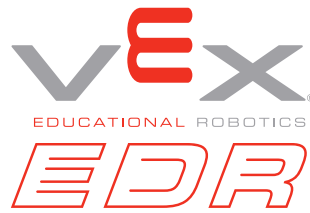
Through easy default programs or a choice of C-language based software programs, designers can quickly and easily write code to command their robot creations to do their bidding. With over 180 items in the assortment, VEX is one of the most extensive and comprehensive educational robotics platforms available today.

Winner of the International Consumer Electronics Show Best of Innovations Award, the platform was developed by Innovation First, Inc.

Innovation First, Inc., a privately held corporation, was founded on the belief that innovation very early in the design process is necessary to produce simple and elegant product designs. IFI first began producing electronics for unmanned mobile ground robots, and is now an industry leader in the hobby, competition, education and toy markets. The company's award-winning VEX Robotics Design System, HEXBUG Micro Robotic Creatures, and IFI Robotics span the education, consumer, and business-to-business markets. Innovation First's staff are unmatched in their experience in supporting and running educational and competitive robotics competitions. Combined with an expertise in Asia product sourcing, the company operates an advanced in-house metal fabrication plant, distribution center, and office located together in a thirteen acre complex in Greenville, Texas.



R&D produced these VEX Wheel Legs which add even more versatility to the VEX Robotics Design System.



## Save Time and Money with Classroom Lab Kits

Our Lab Kits make it easy to bring VEX Robotics into the classroom while saving you money. We've put together turn-key bundles of our most popular classroom equipment making it easy to order at a reduced cost. Start with the Classroom Lab Kit, ideal for 2-5 students, then increase the challenge level by adding Expansion Kits for sensors, drive systems and pneumatics. For larger classes, simply add Kits for every additional 2-5 students.

### Classroom Lab Kit

MSRP:\$699.00

This set is ideal for the beginning Vex Robotics Design Engineering Lab. Further expansion sets can be added to increase the level of complexity, challenge and design concepts for students.



Each Classroom Lab Kit includes a FREE single license of the Autodesk VEX Robotics Curriculum, a \$199.99 value.



The VEX Classroom Lab Kit includes over 1,000 parts.



### Level 2 Advanced Sensor Kit

MSRP:\$99.99

This expansion kit is perfect for classes looking to increase their challenge by adding a computer engineering and sensor implementation aspect to the robotics lab.



### Level 3 Advanced Drive System Kit

MSRP:\$249.99

This expansion kit is ideal for classes/students looking to increase the complexity of their robots and to learn new concepts associated with different drive systems, conveyor belts and other options.



### Level 4 Advanced Pneumatics Kit

MSRP:\$289.99

This lab expansion kit is a great tool for exposing students to the world of pneumatics, various concept and design options, and further expanding functional capabilities for their robots.