VEX®
EDUCATIONAL ROBOTICS
EDR

a) Science
b) Technology
c) Engineering
d) Mathematics
e) ~~All of the above~~ ROBOTICS

intelitek

Robotics Engineering Curriculum (REC) for VEX®

Intelitek's Robotics Engineering Curriculum (REC) is a two-year robotics program for applied science, technology, engineering and mathematics. REC maps to national STEM Standards and custom-maps to any local standard. Real-time per-student basis available using the LearnMate Learning Management System.

See reverse side for additional information.

Carnegie Mellon Robotics Academy

VEX® Curriculum 2.0

The Carnegie Mellon VEX curriculum is broken into six major sections: safety, project management, planning your project, robotic lessons, programming lessons, and engineering activities. The curriculum is designed to support teachers using the starter kit and also teachers interested in taking advantage of VEX's advanced features like: advanced programming, controlling motors using PWMs and relays, pneumatics, homebrew sensors...

See reverse side for additional information.

Autodesk®

VEX® Curriculum

The Autodesk VEX Robotics Curriculum is designed to help students master the fundamentals of robotics and the engineering design process while learning to use industry-leading Autodesk Inventor design software and the leading classroom robotics solution, the VEX Classroom Lab Kit.

See reverse side for additional information.

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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	Carnegie Mellon Robotics Academy Robomatter VEX® Curriculum 2.0	Autodesk VEX® Curriculum
Key Features	REC was built specifically for the VEX Design System and includes lessons with hands-on experience for robotics, engineering, and programming. REC provides a strong blend of mechanical principles and STEM activities with sensor use and programming. Activities are leveled for multiple skill levels and each semester includes a teacher guide to provide answers and sample programs.	Reorganized units make for ease of navigation. Units provide step-by-step instruction and open-ended challenges where appropriate. Quizzes are incorporated with the hands-on learning experience to aid in retention. Key mechanical engineering concepts are coupled with the ability to study programming and sensor use in-depth if desired.	Units are sequential, yet flexible enough for many to be used alone. Step-by-step instructions are provided as well as open-ended challenges and projects where appropriate. In-depth study of mechanical engineering concepts and applications are emphasized. CAD integration allows for a real-world engineering environment.
Pricing	$1295.00 Semester 1 classroom license. $1995.00 Semester 2 classroom license. FREE 10 seat license of Robot Boot Camp and classroom license of easyC included in each purchase.	$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. www.intelitek.com/REC	The entire VEX curriculum 2.0 plus detailed teacher-created curriculum guides, discussion boards and more are available for review at www.vexcurriculum.com	PDF samples available. http://www.vexrobotics.com/vex-education.shtml
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 and easyC PRO.	Yes. ROBOTC. EasyC version available.	No.
Applied STEM Knowledge & Skills	Extensive.	Extensive.	Extensive.
Vocabulary Terms	Yes. Clickable and searchable.	Yes.	Yes. Terms with each unit and phase.
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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