

Introduction to Competitive Robotics

ENGINEERING PROGRAM



3.4: Drive Forward One Meter

3.4.3: Download and Test

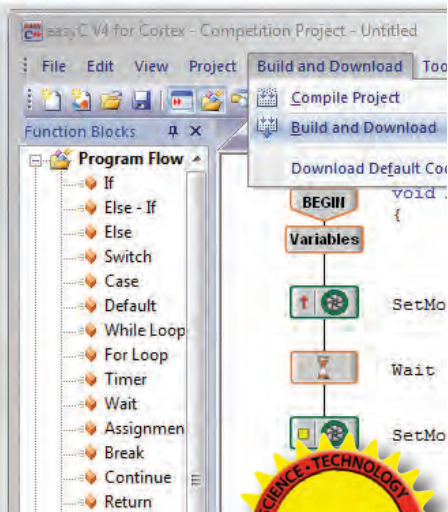
4 Build and Download your program.

5 Open the Competition Switch Simulator.

6 Set the robot on the floor and select Autonomous.

7 Measure how far your robot travels.

8 Divide the distance in centimeters by the time (1 second).



* easyC® for Cortex robotic programming software sold separately

Introduction to Competitive Robotics is powered by LearnMate®- intelitek's innovative e-learning platform. Self-paced interactive LearnMate® content may be deployed stand-alone or through the robust learning management system (LMS). LearnMate® provides everything needed for the ultimate blended learning experience.

- SCORM-compliant interactive content
- Anytime, anywhere accessibility
- Student and class management
- Grade tracking
- Skill/competency reporting mapped to national skill standards

Introduction to Competitive Robotics

is a streamlined curriculum that brings the dynamic educational value of robotic competitions to more VEX teams, as well as high school and middle school classrooms.

Introduction to Competitive Robotics consists of fourteen hands-on activities enhanced by interactive media, videos and simulations. The curriculum can be hosted and delivered via Learnmate.com, intelitek's e-learning management system, or installed on a local computer or network.

Through step-by-step activities covering **robot assembly** and **programming**, teams learn to build and program a competitive robot for both autonomous and operator control. Activities enable teams to quickly understand and apply the concepts many teams struggle with, like encoders, ultrasonic, line followers and PID control.

Introduction to Competitive Robotics includes

- step by step instructions delivered in an accessible self-paced online format.
- interactive simulations and animations of assembly and programming procedures.
- links to launch easyC® software* directly from the content.

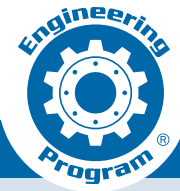
**EXCELLENT ADD-ON FOR REC
(ROBOTICS ENGINEERING CURRICULUM)
PROGRAMS!**

POWERED BY
LearnMate®

Introduction to Competitive Robotics brings the benefits of the VEX Cortex microcontroller and easyC® for Cortex robotic programming software to help more students become exposed to robotics, competitions and engineering!

intelitek ▶▶
www.intelitek.com

Introduction to Competitive Robotics Specifications



ENGINEERING PROGRAM

Featuring the VEX Cortex Controller:



The VEX Cortex Microcontroller coordinates the flow of all information and power on the robot. It has built in bi-directional communication for wireless driving, debugging and downloading using the state of the art VEXnet 802.11 wireless link. The Microcontroller is the brain of every VEX robot.

Order # 16-8107

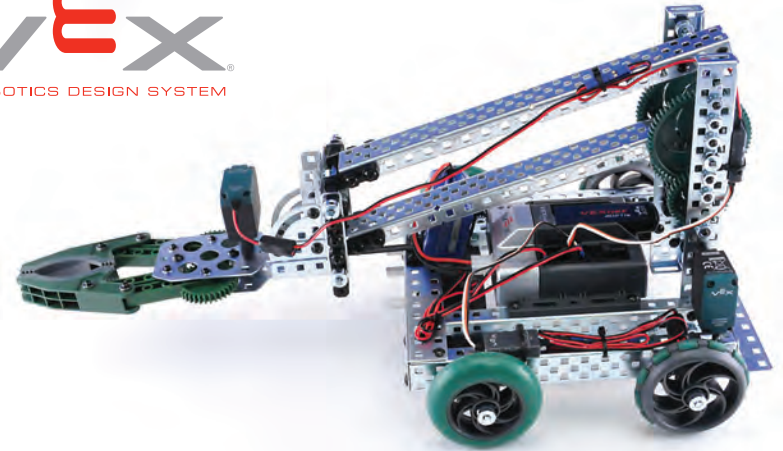
- LearnMate® E-Learning Content: Introduction to Competitive Robotics*
* requires easyC® for Cortex software, sold separately



Course Outline

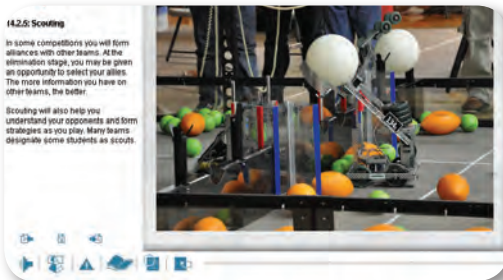
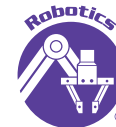
Introduction to Competitive Robotics for Cortex

- 1.0: Building the BumperBot
- 2.0: Writing Your First Program
- 3.0: Programming in Autonomous
- 4.0: User Functions
- 5.0: Programming Operator Control
- 6.0: Adding a Bumper
- 7.0: BumperBot with Operator Control
- 8.0: Multiple Autonomous Modes
- 9.0: Robotic Arm
- 10.0: Potentiometer
- 11.0: Line Followers
- 12.0: Ultrasonic Sensor
- 13.0: Wheel Encoders
- 14.0: Competitions



Make Introduction to Competitive Robotics part of a comprehensive STEM program!

Introduction to Competitive Robotics makes an excellent launching point for more in-depth programs in engineering, mechatronics, automation, advanced manufacturing and more!



Affiliated with:



intelitek

444 East Industrial Park Dr. • Manchester, NH 03109
Phone: 800-221-2763 • info@intelitek.com

www.intelitek.com

35-DS01-8107 Rev-A

All specifications subject to change without notice. All trademarks are property of their respective owners.