

On the path to success with school robotics

Robotics has been used in schools as a teaching tool for several years now. And right from the start, Brault & Bouthillier has always believed this innovative project could motivate, excite and inspire students. With the new LEGO Mindstorms EV3 technology, you can rest assured we will be there every step of the way, to make sure that your robotics project is highly successful.

At Brault & Bouthillier, we believe school robotics can move students forward on the path towards success!



Brault & Bouthillier is proud to offer
LEGO Mindstorms EV3 technology



Brault & Bouthillier
Education

Everything you need to achieve your teaching goals...

Based on easy to use robotics technology, the engaging **LEGO® MINDSTORMS®** Education EV3 platform provides an inspiring full teaching solution.

Inspirational hardware

Core set based on robotic technology for great learning via hands-on building experience.

- Intelligent EV3 brick
- Three motors
- Five sensors
- Plenty of LEGO® Technic elements for sturdy building
- Durable, safe and very versatile



Intuitive software

Programming and data logging made easy through software optimised for the classroom.

- Easy to learn, use and understand
- Simple drag and drop programming
- Extensive data logging for science experiments
- 48 step-by-step tutorials & comprehensive user guide



Content editor for archiving more!

The content editor inside the software makes it easy for you to edit and adapt all content – or create your own.

- Customize our curriculum material
- Meet your specific teaching requirements
- Edit or create content for differentiated teaching
- Be inspired by others



Content editor for students!

Your students capture their work directly inside the content editor, creating their own digital workbook.

- An integrated digital learning experience
- One place for all student information, guidance and support
- Students can add text, images, web links, video & audio files
- Makes assessment and sharing easy



Backwards compatibility

LEGO® MINDSTORMS® Education EV3 uses the same LEGO® Technic elements and RJ12 connector cables as the MINDSTORMS® Education NXT, so all your existing sensors, motors and building elements will work with the new platform – you can even program your NXT brick using the new EV3 software!



LEGO® MINDSTORMS® Education EV3 Core Set

This core set is optimized for classroom use and contains all you need to teach using the exciting LEGO® MINDSTORMS® set. It enables students to build, program and test their solutions based on real life robotics technology. It contains the EV3 Intelligent Brick, a powerful small computer that makes it possible to control motors and collect sensor feedback. It also enables BT and WiFi communication as well as providing programming and data logging.



- Inbuilt rotation sensor
 - One degree accuracy
 - AutoID



- Auto detects and control sensors and motors
- Play sound, display image, control light
- On brick programming interface
- Inbuild Bluetooth

A blue Wi-Fi signal icon with three curved lines of increasing length extending from the right side.

Communication

The set includes:

- Three interactive servo motors
 - Built-in rotation sensor and ultrasonic sensor
 - Color/light sensor, gyro sensor and two touch sensors
 - Rechargeable battery
 - Ball wheel
 - Connecting cables
 - Building instructions
 - LEGO Technic building bricks for creating a vast variety of models

#2495562 / \$399.95



- One Medium Servo Motor
 - Inbuilt rotation sensor
 - One degree accuracy
 - AutoID

- One Ultrasonic Sensor**

 - Measures distance
 - Detects objects
 - AutoID

One Colour Sensor

 - Detects colours
 - Measures light intensity, ambient and reflected light
 - AutoID

One Gyro Sensor

 - Measures angles
 - Measures accumulated angles
 - AutoID

Two Touch Sensors

 - 3 different modes
 - Pressed, released, count number of presses
 - AutoID



LEGO® MINDSTORMS® Education EV3 Expansion Set

This set contains a wide range of elements and is an ideal supplement to the EV3 Core Set. It has been designed to allow students to take their experience with robotics to the next level. There are plenty of special elements here, such as different gears, a large turntable, robot personalization parts and unique structural elements. These are joined by many extra standard elements like beams, axles and connectors. Take your robot builds to the next level with a wide range of elements that allow you to build and program MINDSTORMS Education models with even more functions than ever before.

#2495570 / \$114.95

LEGO Mindstorms Education EV3 Software

A World of Exciting Possibilities!

The LEGO® MINDSTORMS® Education EV3 software is based on LabVIEW, the industry-leading graphical programming language used by scientists and engineers worldwide. Our software is optimised for classroom usage and follows the very latest developments in intuitive software design, which results in an extremely user-friendly interface.

- Intuitive icon base programming
- Easy to learn, use and understand
- Intuitive Drag and Drop programming
- From simple to complex programs
- Comprehensive teacher guide

PC Compatible (XP SP2+) and Mac Compatible (10.5+)

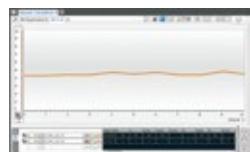
LME EV3 1.0 – single user license (bilingual) — #2495588 / \$114.95

LME EV3 1.0 – multi user license (bilingual) — #2495596 / \$459.95



Data Logging

Powerful science tool for scientific inquiry. Predict, collect, analyse and manipulate data & carry out experiments.



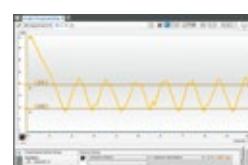
Data logging

- Predict, Collect and Analyse
- Log data and view Live Graphs
- Basic & advanced analysis tools
- Easily export data to spreadsheets



Graph manipulation

- Unique calculator interface
- 3 dataset average
- From one value to another
- From Rotational counts via Speed to Acceleration



Graph programming

- Execute actions based on data readings
- Unique new LEGO® feature
- Makes science experiments come alive
- Increase student understanding of graphs/data

Also Offered Separately



EV3 Intelligent Brick

This programmable, intelligent brick serves as the heart and brain of LEGO® MINDSTORMS® Education EV3 robots. It features an illuminated six-button interface that changes color to indicate the brick's active state, a high-resolution black and white display, built-in speaker, USB port, a mini SD card reader, four input ports and four output ports. The brick also supports USB, Bluetooth and WiFi communication with a computer and has a programming interface that enables programming and data logging directly onto the brick. It is compatible with mobile devices and is powered by AA batteries or the EV3 Rechargeable DC Battery.

#2495687 / \$183.95



EV3 Touch Sensor

The analog EV3 Touch Sensor is a simple but exceptionally precise tool that detects when its front button is pressed or released and is able to count single and multiple presses.

#2495661 / \$22.95



EV3 Ultrasonic Sensor

The digital EV3 Ultrasonic Sensor generates sound waves and reads their echoes to detect and measure distance from objects.

#2495679 / \$36.95



EV3 Gyro Sensor

The digital EV3 Gyro Sensor measures the robot's rotational motion and changes in its orientation.

#2495653 / \$34.95



EV3 IR Sensor

The digital EV3 Infrared Seeking Sensor detects proximity to the robot and reads signals emitted by the EV3 Infrared Beacon.

#2495620 / \$34.95



EV3 IR Beacon

This has been designed for use with the EV3 Infrared Seeker Sensor. The beacon emits an infrared signal which the sensor can track.

#2495638 / \$34.95



EV3 Large Servo Motor

The EV3 Large Servo Motor is a powerful motor that uses tacho feedback for precise control to within one degree of accuracy. By using the built-in rotation sensor, the intelligent motor can be made to align with other motors on the robot so that it can drive in a straight line at the same speed. It can also be used to give an accurate reading for experiments. The motor case design also makes it easy to assemble gear trains.

#2495695 / \$25.95



EV3 Medium Servo Motor

The EV3 Medium Servo Motor is great for lower-load, higher speed applications and when faster response times and a smaller profile are needed in the robot's design. The motor uses tacho feedback for precise control within one degree of accuracy and has a built-in rotation sensor.

#2495612 / \$22.95



EV3 Color Sensor

The digital EV3 Color Sensor distinguishes between eight different colors. It also serves as a light sensor by detecting light intensities.

#2495646 / \$40.95



EV3 Rechargeable DC Battery

The lithium ion EV3 Rechargeable DC Battery is designed for use with the EV3 Intelligent Brick and features a capacity of 2050 mAh. It provides longer run time than AA batteries and can be charged without taking the model apart. The battery is included in the EV3 Education Core Set and has a charge time of around three to four hours. It requires the DC Charger, which is the same charger used for the rechargeable NXT DC Battery.

#2495703 / \$68.95

EV3 First Steps Training Session

EV3 is the new LEGO Education robotics set. Based on NXT, this next generation platform features several additional capabilities offering a full teaching solution to engage students in a number of key curriculum areas.

EV3 is the first robotics set specifically designed for classroom use.

This training session will cover school robotics basic concepts and include a full description of the new robotics set, pieces and new software. Of course, much of the time will be devoted to using the materials and programming your robot.

Key Points

- Introduction to robotics
- Description of the robotics materials
- Classroom organization
- Construction of a first robot
- Programming
- First challenges with sensors
- Data logging capabilities
- Content management capabilities



School Robotics Training Session

EV3 – First Steps — #2430114 / \$749.95

School Robotics Training Session

EV3 – Beyond the First Steps — #2430122 / \$749.95

To Complement your EV3 Set



Robotics Challenge Mat #3

This work surface allows you to take full advantage of the EV3 Brick's functional capabilities. This all-vinyl, highly-durable new Challenge Mat is the ideal teaching complement. Optimized for EV3 and works with RCX and NXT. 122 x 244 cm (4' x 8')

#2495844 / \$82.95



LEGO® MINDSTORMS® Education EV3 Design Engineering Projects

New from LEGO® Education for the EV3 platform is Design Engineering Projects, a curriculum package with 30 hours of classroom instruction and open-ended problem-solving activities that make learning of science, technology, engineering and mathematics through real-life robotics engaging and fun for students.

#2495604 / \$344.95



LEGO® MINDSTORMS® Education EV3 Technological Vocabulary Poster

Features the names of the components of the EV3 Robotics Set. Bilingual.

#2495836 / \$10.50

Technical Specifications: NXT & EV3



NXT

EV3

Processor	Atmel 32-Bit ARM AT91SAM7S256 48 MHz 256 KB FLASH-RAM 64 KB RAM	ARM9 300MHz 16 MB Flash 64 MB RAM
Operating system	Proprietary	Linux
Sensor ports	4 input ports	4 input ports
Motor ports	3 input ports	4 input ports
USB communication	12 Mb/s	480 Mb/s
USB extension	n/a	- EV3 brick serial connection - Wi-Fi - USB recording
SD card	n/a	SD-Micro card reader, up to 32 GB
Communication with smart devices	Android	Apple Android
User interface	4 buttons	6 backlit buttons
Display	LCD Matrix, monochrome 100 x 64 Pixels	LCD Matrix, monochrome 178 x 128 Pixels
Communication	Bluetooth USB 2.0	- Bluetooth v2.1DER - USB 2.0 (to talk with computer) - USB 1.1 (for daisy-chaining)
Other information	Sensors and motors are detected by the brick.	

EV3 Sets



EV3 ROBOTICS – Basic Plus Classroom Solution

→ For 2 or 3 students per set

- 1 LME EV3 1.0 multi user license software (bilingual) [2495596]
Value of: \$459.95
12 LEGO MINDSTORMS Education EV3 Sets [2495562]
Value of: \$4,799.40
- Regular price:** \$5,259.35 **Promo:** \$5,165.90
To order → 2495919



For \$5 extra:

- 1 EV3 Technological Vocabulary Poster (bilingual) [2495836] – value of \$10.50
1 Set of 2 B&B Educational Posters – value of \$19.95

Promo: \$5,170.90

EV3 ROBOTICS – Basic Plus Classroom Solution + bonus →

EV3 ROBOTICS – Complete Classroom Solution

→ For 2 to 4 students per set

- 1 LME EV3 1.0 multi user license software (bilingual) [2495596]
Value of: \$459.95
8 LEGO MINDSTORMS Education EV3 Sets [2495562]
Value of: \$3,199.60
4 LEGO MINDSTORMS Education EV3 Expansion Sets [2495570]
Value of: \$459.80
- Regular price:** \$4,119.35 **Promo:** \$4,051.85
To order → 2495935



For \$25 extra:

- 1 Robotics Challenge Mat #3 – Basic EV3 Challenges [2495844] – value of \$82.95
1 EV3 Technological Vocabulary Poster (bilingual) [2495836] – value of \$10.50
1 Set of 2 B&B Educational Posters – value of \$19.95

Promo: \$4,076.85

EV3 ROBOTICS – Complete Classroom Solution + bonus →

2495794



For \$25 extra:

- 1 Robotics Challenge Mat #3 – Basic EV3 Challenges [2495844] – value of \$82.95
1 EV3 Technological Vocabulary Poster (bilingual) [2495836] – value of \$10.50
1 Set of 2 B&B Educational Posters – value of \$19.95

Promo: \$5,866.85

EV3 ROBOTICS – Complete Plus Classroom Solution + bonus →

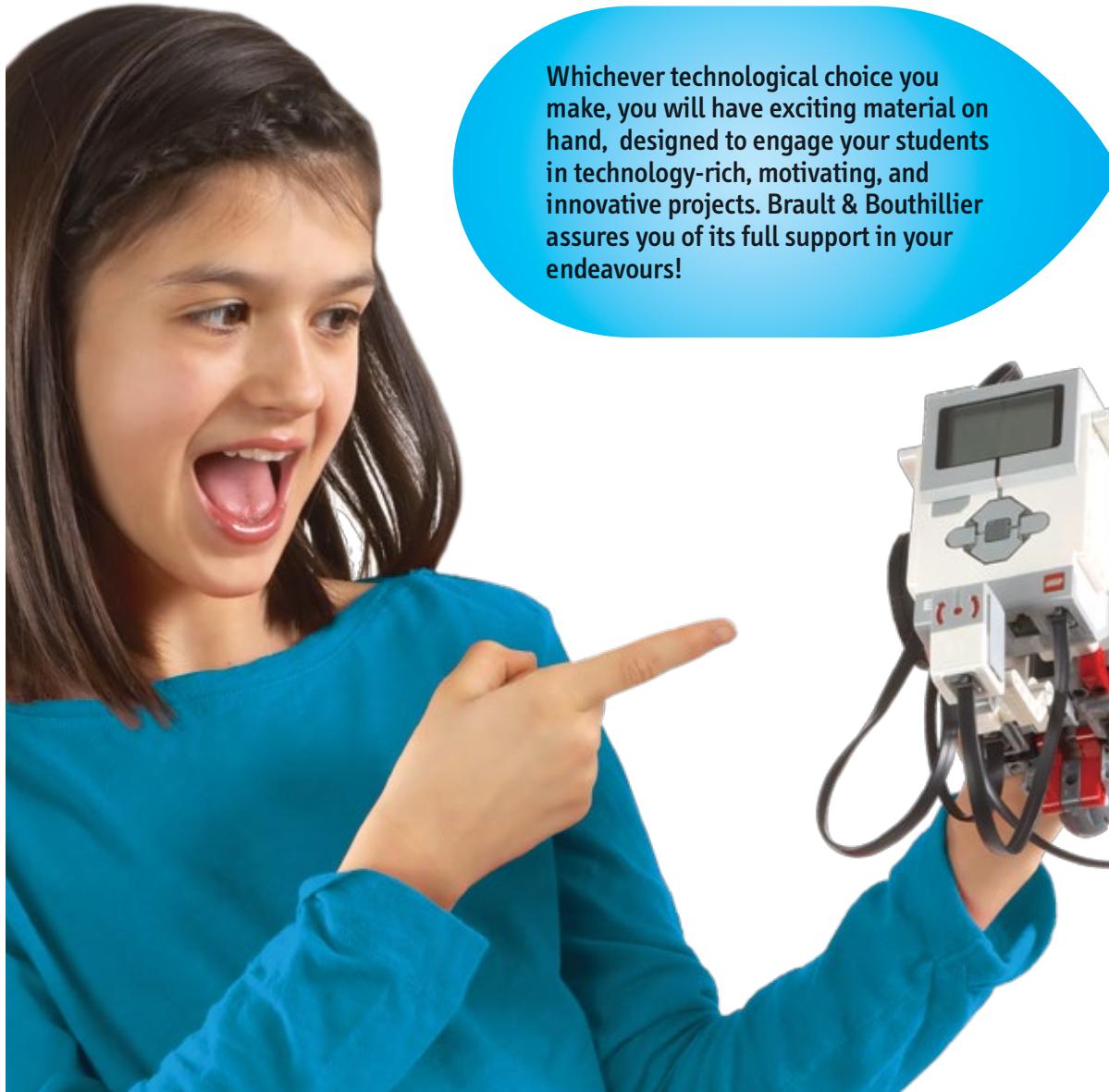
2495802

Technological renewal in a context of continuity...

With the arrival of the LEGO MINDSTORMS Education EV3 Robotics Set,
what happens with the LEGO MINDSTORMS Education NXT Set?

The NXT sets constitute a worthy investment:

- NXT Sets, as well as NXT Software, will be offered until early 2016;
- Building systems of the EV3 Sets and NXT Sets are 100% interchangeable;
- EV3 Programming Software allows you to program your NXT Bricks;
- NXT Sensors and Servo Motors work with the EV3 Brick.



NXT Sets



NXT ROBOTICS – Workstation

→ For 2 to 4 students

- 1 LME NXT software version 2.1 (single user) (bilingual) [2491009]
Value of: \$95.95
1 LEGO MINDSTORMS NXT Education Set [2491215]
Value of: \$355.00

Regular price: \$450.95

For \$5 extra:

- 1 NXT Technological Vocabulary Poster (bilingual) [2491355] – Value of \$10.50
1 Set of 2 B&B Educational Posters [2495315] – Value of \$19.95

Promo: \$455.95

NXT ROBOTICS – Workstation + bonus → 2493153

NXT ROBOTICS – Basic Classroom Solution

→ For 2 to 4 students per set

- 1 LME NXT software version 2.1 (multi user) (bilingual) [2491348]
Value of: \$390.95
8 LEGO MINDSTORMS NXT Education Sets [2491215]
Value of: \$2,840.00

Regular price: \$3,230.95

To order →

Promo: \$3,166.95

2495968

For \$5 extra:

- 1 NXT Technological Vocabulary Poster (bilingual) [2491355] – Value of \$10.50
1 Set of 2 B&B Educational Posters [2495315] – Value of \$19.95

Promo: \$3,171.95

NXT ROBOTICS – Basic Classroom Solution + bonus →

2493161

NXT ROBOTICS – Basic Plus Classroom Solution

→ For 2 or 3 students per set

- 1 LME NXT software version 2.1 (multi user) (bilingual) [2491348]
Value of: \$390.95
12 LEGO MINDSTORMS NXT Education Sets [2491215]
Value of: \$4,260.00
- Regular price: \$4,650.95 Promo: \$4,531.90
To order → 2495976

For \$5 extra:

- 1 NXT Technological Vocabulary Poster (bilingual) [2491355] – Value of \$10.50
1 Set of 2 B&B Educational Posters [2495315] – Value of \$19.95

Promo: \$4,536.90

NXT ROBOTICS – Basic Plus Classroom Solution + bonus →

2493179

NXT ROBOTICS – Complete Classroom Solution

→ For 2 to 4 students per set

- 1 Resource Set including 817 pieces [2492981] Value of: \$107.95
1 LME NXT software version 2.1 (multi user) (bilingual) [2491348]
Value of: \$390.95
8 LEGO MINDSTORMS NXT Education Sets [2491215] Value of: \$2,840.00
- Regular price: \$3,338.90 Promo: \$3,275.85
To order → 2495984

For \$75 extra:

- 1 La robotique pédagogique en classe, resource guide by Yannick Dupont et al, 304 pages (in French) [2492684] – Value of \$69.95
1 Guide d'initiation à la robotique pédagogique sur CD, leçons et activités (in French) [2493336] – Value of \$34.95
1 Robotics Challenge Mat #1 [2490035] – Value of \$82.95
1 NXT Education Technological vocabulary poster [2491355] – Value of \$10.50
1 Set of 2 B&B Educational Posters [2495315] – Value of \$19.95

Promo: \$3,350.85

NXT ROBOTICS – Complete Classroom Solution + bonus →

BB Exclusive

2493187

NXT ROBOTICS – Complete Plus Classroom Solution

→ For 2 or 3 students per set

- 1 Ensemble Ressources Techniques 817 pièces [2492981] Value of: \$107.95
1 Logiciel LME NXT 2.1 – licence multiposte (bilingual) [2491348] Value of: \$390.95
12 Ensemble LEGO MINDSTORMS Education NXT [2491215] Value of: \$4,260.00

Regular price: \$4,758.90

To order →

Promo: \$4,639.85
2495992

BB Exclusive

For \$75 extra:

- 1 La robotique pédagogique en classe, resource guide by Yannick Dupont et al, 304 pages (in French) [2492684] – Value of \$69.95
1 Guide d'initiation à la robotique pédagogique sur CD, leçons et activités (in French) [2493336] – Value of \$34.95
1 Robotics Challenge Mat #1 [2490035] – Value of \$82.95
1 NXT Education Technological vocabulary poster [2491355] – Value of \$10.50
1 Set of 2 B&B Educational Posters [2495315] – Value of \$19.95

Promo: \$4,714.85

NXT ROBOTICS – Complete Plus Classroom Solution + bonus →

2493229

Advanced Robot Builders Sets

EV3 ROBOTICS – Design Engineering Projects – Complete Classroom Solution

→ For 2 to 4 students per set

- 1 LME EV3 1.0 multi user license software (bilingual) [2495596]
Value of: \$459.95
- 8 LEGO MINDSTORMS Education EV3 Set [2495562]
Value of: \$3,199.60
- 4 LEGO MINDSTORMS Education EV3 Expansion Sets [2495570]
Value of: \$459.80
- 1 LEGO MINDSTORMS EV3 Design Engineering Projects [2495604]
Value of: \$344.95

Regular price: \$4,464.30 Promo: \$4,396.80
To order → [2496016](#)

For \$75 extra:

- 1 EV3 Technological Vocabulary Poster [2495836] – Value of \$10.50
- 1 Robotics Challenge Mat #3 – Basic EV3 Challenges [2495844] – Value of \$82.95
- 1 Set of 2 B&B Educational Posters [2495315] – Value of \$19.95
- 1 La robotique pédagogique en classe, resource guide by Yannick Dupont et al, 304 pages (in French) [2492684] – Value of \$69.95

Promo: \$4,471.80
EV3 ROBOTICS – Design Engineering
Projects – Complete Classroom
Solution + bonus → [2496024](#)

NXT ROBOTICS – Tetrix Classroom Initiation

→ For 2 to 4 students per set

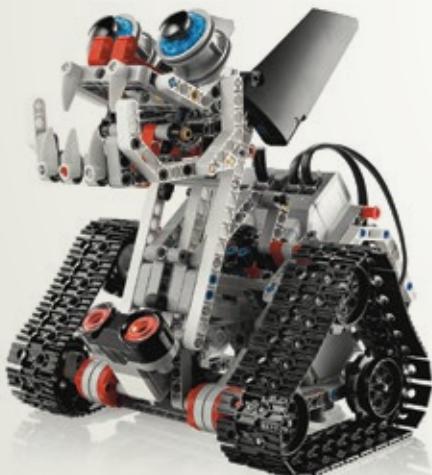
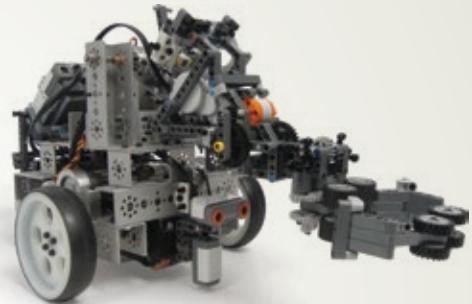
- 1 LME NXT 2.1 multi user license software (bilingual) [2491348]
Value of: \$390.95
- 1 Tetrix Basic set [2495174]
Value of: \$689.95
- 8 LEGO MINDSTORMS Education NXT Set [2491215]
Value of: \$2,840.00

Regular price: \$3,920.90 Promo: \$3,856.95
To order → [2496032](#)

For \$25 extra:

- 1 La robotique pédagogique en classe, resource guide by Yannick Dupont et al, 304 pages (in French) [2492684] – Value of \$69.95
- 1 Technological Vocabulary Poster [2491355] – Value of \$10.50
- 1 Set of 2 B&B Educational Posters [2495315] – Value of \$19.95

Promo: \$3,881.95
NXT ROBOTICS – Tetrix Classroom
Initiation + bonus → [2495810](#)





Technology for Learning

Brault & Bouthillier is a proud
partner of LEGO Education



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Prices valid until March 31st, 2014.

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Brault & Bouthillier
Education