Gear up for FTC 2010!

The 2010-2011 FIRST Tech Challenge brings with it more kit options than ever for both rookie and veteran teams. This year’s streamlined lower-cost FTC Competition Kit provides a solid foundation and leaves plenty of flexibility for teams to customize extra parts selections based on their individual robot designs. Also, the growth of FTC and the adoption of MINDSTORMS® and TETRIX™ in high school classrooms across the globe means more TETRIX parts are manufactured at a lower cost per part - and that savings is passed on to FTC teams.

Hardware Options

• 2010 FTC Competition Kit - $749
A great foundation for FTC. Included are a TETRIX Education Base Set, a LEGO® MINDSTORMS Education NXT Base Set, the new Wi-Fi communication module, a Logitech joystick controller, and all of the programming and design software necessary for competition.

• 2010 FTC Competition Kit minus LEGO MINDSTORMS - $549
A replica of the 2010 FTC Competition Kit minus the MINDSTORMS kit. Great for veteran and rookie teams alike, particularly graduating FIRST LEGO League teams.

• 2010 FTC Software Renewal Kit - $69
Available only to veteran teams, this kit contains all of the programming and design software necessary for FIRST Tech Challenge competition, plus the new Wi-Fi module.

Software Options

LabVIEW Education Edition
Includes CD with a one-year FTC team license for LabVIEW Education Edition. Additional downloads may be necessary.

ROBOTC
Downloadable one-year, 3-seat FTC team license for ROBOTC 2.0. CD not included.

PTC’s Pro/ENGINEER 3D CAD/CAM design software
Includes CD and one-year FTC team license.

In the Classroom

No robotics program is complete without activities, and standards-based curriculum for taking MINDSTORMS and TETRIX into the classroom is available. Please visit www.tetrixrobotics.com/MINDSTORMS_Controlled/ to learn more.

New for 2010

• FTC Resource Kit for $199: a cost-effective way to purchase a large selection of TETRIX metal plus two additional DC motors and one Logitech joystick controller.
• 35% price reduction on TETRIX gears
• Rechargeable MINDSTORMS NXT battery
• 30% discount on all TETRIX spare parts
• Extra MINDSTORMS touch sensor
• Wi-Fi module to replace previous Bluetooth communication
• New TETRIX parts coming this fall
<table>
<thead>
<tr>
<th>Brackets and Structural Elements</th>
<th>2010 FTC Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel – 32 mm</td>
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<tr>
<td>Channel – 96 mm</td>
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<tr>
<td>Channel – 160 mm</td>
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<tr>
<td>Channel – 288 mm</td>
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<tr>
<td>Single-Servo Motor Bracket</td>
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<tr>
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<td>Flat Bracket</td>
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<td>L Bracket</td>
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<tr>
<td>Servo Joint Pivot Bracket and Pivot Bearing</td>
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<tr>
<td>Flat Bar – 288mm</td>
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<tr>
<td>Angle – 144 mm</td>
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<td>Item</td>
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<tr>
<td>Angle – 288 mm</td>
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<tr>
<td>Flat Building Plate</td>
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<tr>
<td>Tube – 80 mm</td>
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<td>Tube – 145 mm</td>
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<td>Tube – 220 mm</td>
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<td>Tube Plug</td>
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<td>Tube Clamp</td>
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<tr>
<td><strong>Servos and Motors</strong></td>
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<tr>
<td>Servo with Horn</td>
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<td>Servo Extension</td>
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<td>Servo Y Connector</td>
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<tr>
<td>DC Drive Motor</td>
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<td>Motor Mount</td>
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<tr>
<td>Item</td>
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<tr>
<td>Motor Power Cable</td>
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<tr>
<td>Gear Hub Spacer</td>
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<tr>
<td>Bronze Bushing</td>
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<td>Axle Set Collar</td>
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<table>
<thead>
<tr>
<th>Item</th>
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<tbody>
<tr>
<td><strong>Wheels, Gears, Drive Train</strong></td>
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<tr>
<td>Wheel – 3”</td>
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<tr>
<td>Omni-Wheel</td>
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<td>Gear – 40-Tooth</td>
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<table>
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<tr>
<td><strong>Fasteners</strong></td>
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<tr>
<td>Axle Spacer – 1/8”</td>
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</tbody>
</table>
Axle Spacer – 3/8" 6

Kep Nut 200

Stand-Off Post – 1" 12

Stand-Off Post – 2" 12

Button Head Cap Screw (BHCS) – 3/8" 50

Socket Head Cap Screw (SHCS) – 1/2" 100

Socket Head Cap Screw (SHCS) – 5/16" 100

TETRIX Hard -Point Connector 12

<table>
<thead>
<tr>
<th>Sensors, Controllers, and Batteries</th>
<th>2010 FTC Qty</th>
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<tbody>
<tr>
<td>LEGO® MINDSTORMS® Set including Intelligent Brick, sensors, motors, Technic building elements, and more</td>
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<td>DC Rechargeable Battery</td>
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<td>Transformer 10V DC</td>
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<td>HiTechnic DC Motor Controller</td>
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<td>HiTechnic Servo Motor Controller</td>
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<tr>
<td>Logitech Gaming Controller</td>
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<tr>
<td>On/Off Switch</td>
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<tr>
<td>DC gearhead motor shaft encoders</td>
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<td>Samantha WiFi Module</td>
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**Software**

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<tr>
<th>Software</th>
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<tbody>
<tr>
<td>Pro/ENGINEER Mathcad Software &amp; Instructions</td>
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<tr>
<td>2010 LabVIEW Education Edition for FTC</td>
<td>1</td>
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<tr>
<td>2010 RobotC 2.0 for FTC</td>
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**Storage and Tools**

<table>
<thead>
<tr>
<th>Item</th>
<th>2010 FTC Qty</th>
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<tbody>
<tr>
<td>Plastic Storage Bin with Snap-On Lid with Parts</td>
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**Summary**
<table>
<thead>
<tr>
<th>Resources</th>
<th>2010 FTC Qty</th>
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<tbody>
<tr>
<td>Getting Started with TETRIX CD</td>
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<tr>
<td>Creator's Guide</td>
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</tr>
<tr>
<td>FTC Getting Started Poster</td>
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<td>Brackets and Structural Elements</td>
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<td><strong>Motors</strong></td>
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<tr>
<td>Kep Nut</td>
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<tr>
<td>Socket Head Cap Screw (SHCS) – 1/2&quot;</td>
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<td>Axle Spacer – 1/8&quot;</td>
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<th><strong>Controller</strong></th>
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<tr>
<td>Logitech Gaming Controller</td>
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<th><strong>Storage</strong></th>
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<tr>
<td>Plastic Storage Bin with Snap-on Lid and Parts</td>
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**Summary** | 

- Axle – 100 mm: 6
- Kep Nut: 100
- Socket Head Cap Screw (SHCS) – 1/2": 100
- Axle Spacer – 1/8": 12
- Axle Spacer – 3/8": 6
- Logitech Gaming Controller: 1
- Plastic Storage Bin with Snap-on Lid and Parts: 1
# 2010 FTC Software Renewal Kit

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