

The Green City Challenge: Robotics In-and-Out of the Classroom



Andy Bell | LEGO Education North America





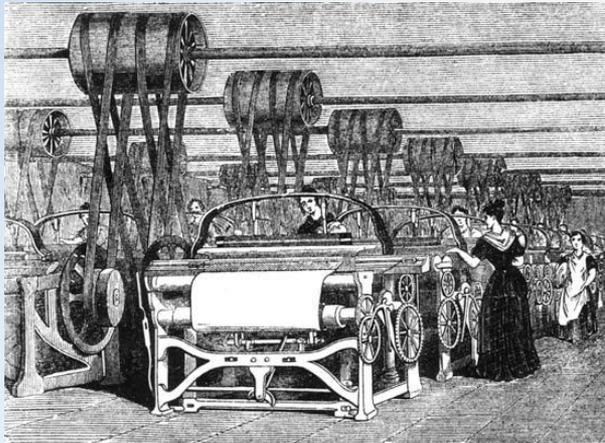
Times are changing



education

How society has changed

Industrial Age



One Truth

Local

Production

Enlightenment

Information Society



Creative Society



Multiple Truths

Global

Innovation

Creative thinking



The LEGO® Education Way:
Creativity, team-work, and problem-solving

Robotics- For All Ages

Elementary School

LEGO® Education WeDo™
(7 to 11+ years)



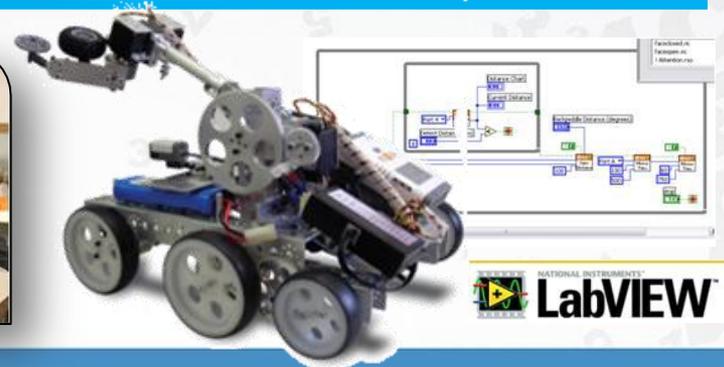
Middle & High School

LEGO® MINDSTORMS® Education
(10 to 16+ years)

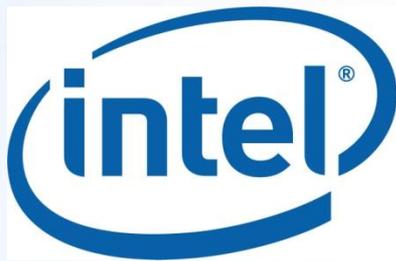
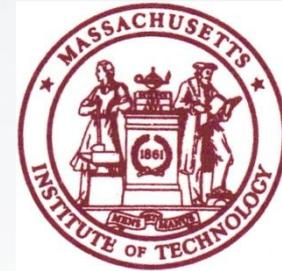


High School & University

LEGO® MINDSTORMS® Education
+ TETRIX®
(14 to 18+ years)



Partners in Education



“Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime.”

-Ancient Chinese Proverb

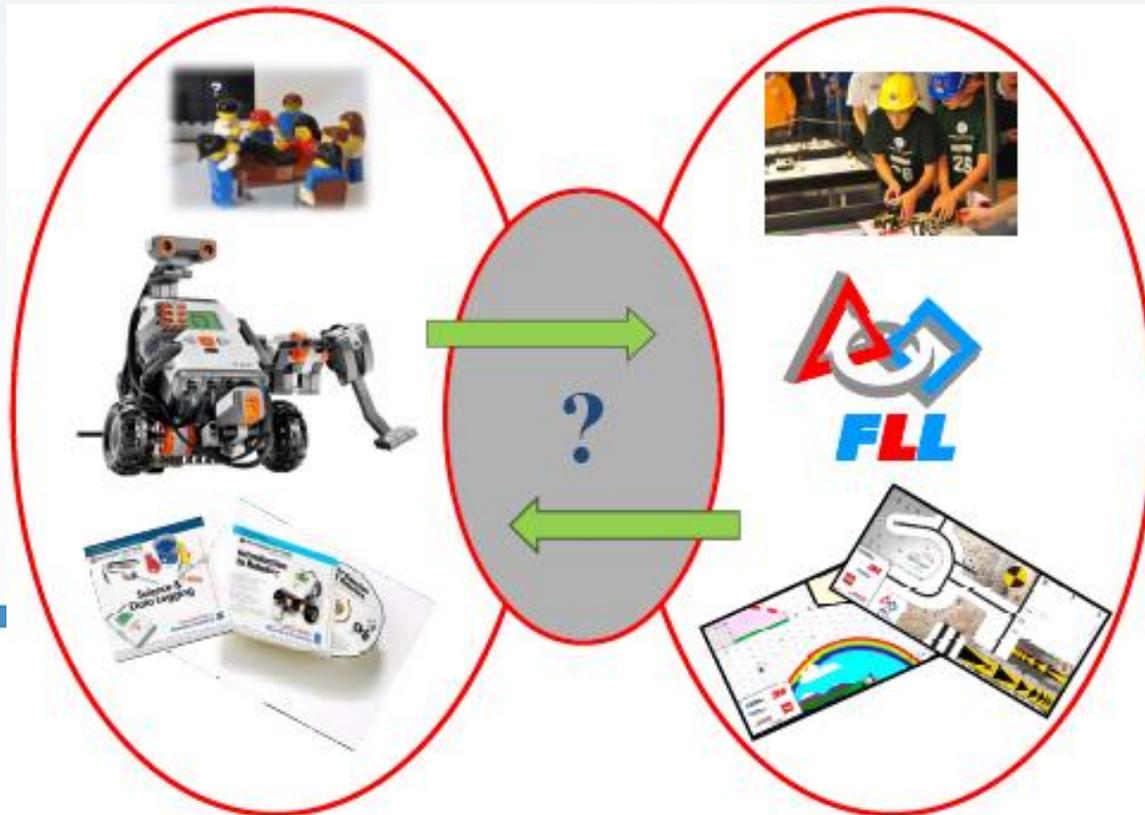
Educator Driven Innovation

P3 2011

1/10

RESEARCH

We worked closely with more than 15 teachers over a multi-year period
We saw how they used MINDSTORMS in-school
We saw how they used MINDSTORMS after-school
We investigated their needs



Green City

The *Green City Challenge Set* is an:

- easily implemented, structured robotics getting started set
- offers step-by-step instructions for ensured classroom success
- ideal solution to prepare students for robotics competitions

The activities cover
beginner
and advanced levels in
building,
programming, and
testing using
MINDSTORMS

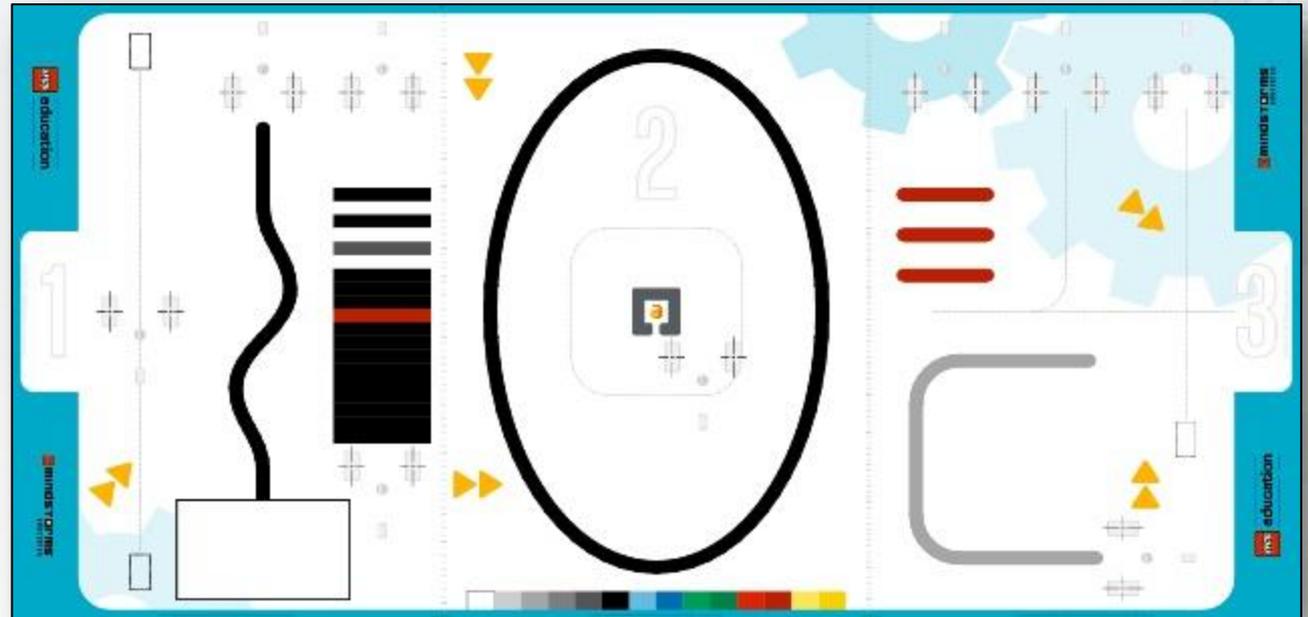


The Training Materials

The set's three training mats offer progression-based activities, preparing students for the Green City competition.

Sensors:

- Light
- Ultrasonic
- Sound
- Touch



1

2

3

The Green City Challenge

The challenge mat offers a real-life setting for solving seven different renewable energy-based missions. Students apply the skills they acquired through training to solve each mission and successfully power the Green City.



Students Will

Learn about science, technology, engineering, and math concepts and how each relates to the field of robotics

Enhance their teamwork and critical thinking skills, unlocking new and exciting experiences

Discover how robotics is used in real-world scenarios to solve modern-day problems





Educator Driven Innovation:

LEGO Education Advisory Panel

Group of 27 expert teachers from all subject areas and grade levels formed to develop a stronger interaction between LEGO Education and educators in the field.

- Review products and provide insight on possible classroom implementation.
- Recommend and provide feedback regarding new product development.
- Evangelize leading educational practices.

empowering creativity and innovation



Thank you

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