

Retail vs. Education EV3

In addition to having software that looks different, the educational version of the EV3 set is different than the retail version in many ways.

The retail version of the kit is \$349.95 and comes with the following:

- The EV3 P-Brick
- 2 Large Motors
- 1 Medium Motor
- 1 Color Sensor
- 1 Touch Sensor
- 1 IR Sensor
- 1 IR R/C
- 601 LEGO elements
- Basic EV3-programming software



The LEGO Education version of the kit is \$411.95 (\$62 more than retail) and comes with the following:

- The EV3 P-Brick
- 2 Large Motors
- 1 Medium Motor
- 1 Color Sensor
- 2 Touch Sensors (one more than the retail version - a \$19.95 value)
- 1 Ultrasonic Sensor (\$31.95 value)
- 1 Gyro Sensor (\$29.95 value)
- 1 Rechargeable Battery pack (\$59.95 value)
- 1 Battery Pack Charger (\$24.95 value)
- 541 LEGO elements
- Hard Plastic Storage Bin (\$12.95 value)

So, the educational set comes with about \$180 worth of additional equipment for just \$62 more. Two of the most valuable additions are the rechargeable battery, which permanently mounts to the programming brick (you don't need to disassemble your model to recharge the battery), and the plastic storage bin, which greatly reduces the potential for lost pieces.

The Educational EV3 can be programmed with three different software packages—Robot C, National Instruments LabVIEW®, and EV3-G. The EV3 graphical language is similar to the retail set, but greatly expanded. It is sold separately and costs \$99.95 for a single user license or \$399.95 for a site license. The educational version of the software is designed for an educational environment and goes beyond the retail version by adding:

- 48 Advanced Programming Lessons via the Robot Educator. These exclusive lessons (not included in the retail version) can fill a full semester of instruction, giving students the fundamentals of how to program the EV3 and succeed with it, by focusing on how individual sensors and motors work. Students gain a much better understanding of robotics when they complete these tutorials! The educational version also differs from the retail version by adding data logging capabilities
- Lobby—an advanced sharing tool
- Data logging—the ability to collect and store data on the EV3 for download and analysis – students can log data on the robot, graph changes, see patterns, and even export to excel!
- Dynamic content editor

Please do not try to mix kits in the same environment because there many different pieces because the retail models you build are different than the education models because of the educational focus.

If you think you are saving money, you won't because the retail version drinks AA batteries.

Here is another website for further comparison: <http://robotsquare.com/2013/11/25/difference-between-ev3-home-edition-and-education-ev3/>