DIFFERENT MINDSTORMS SETS

By Droids Robotics, 2016

There are three different sets you can buy for a robotics team: 1) Retail (31313), 2) Education Core Set (5003400), 3) FLL bundle - Core + Expansion Sets (5003463).

The Core Set and the Retail sets come with different LEGO parts, and a different set of sensors. Retail sets include an Infrared and a Beacon (which are not allowed in FLL), but no Gyro and Ultrasonic. The Retail set also does not come with the rechargeable battery and charger.

The Expansion set that comes as part of the FLL bundle can be purchased separately. It comes with additional LEGO parts that allow you to build several extra models.

No matter which kit you buy, the additional parts can be purchased separately any time you want.

There are two different versions of software and firmware - Home edition and Education edition. Many EV3 users refer to the Home edition as the "toy version" of the software. This is a mistake. In reality, both versions of the software are virtually identical when it comes to programming your EV3 LEGO MINDSTORMS.

If you run a robotics classroom, you might like the tutorials, models and datalogging features of the EDU edition of the software.

If you run the Home edition, and buy the additional sensors, you can download the additional programming blocks for the sensors you add.

The EV3 brick in the Retail set comes with Home Edition firmware which does not include on-brick datalogging. But you can always switch the firmware to either edition.

Useful link from FIRST for the FLL bundle: http://www.firstinspires.org/robotics/fll/pricing-and-payment

	Education Edition	Home/Retail Edition
Cost	Fee and available for download from LEGO Education (Download Software page - https://education.lego.com/en-us/educationdownloads)	Free and available for download from the LEGO.com site (MINDSTORMS downloads page - http://www.lego.com/en-us/mindstorms/downloads)
Programming Language	EV3-G	EV3-G
Datalogging	YES	NO
Programming Tutorials	General EV3 programming tutorials included	EV3 programming tutorials for specific missions related to each build
Building Instructions	5 models plus Expansion Set models EV3 Core Base, GyroBoy, Color Sorter, Puppy, Robot Arm	5 models plus bonus models TRACK3R, SPIK3R, EV3RSTORM, R3PTAR, GRIPP3R
Sensor Support	Built-in blocks/support for all LEGO-manufactured sensors (all sensors available in both the Edu Core and Retail kits)	Supports all sensors. But you will need to download the blocks for the Ultrasonic and Gyro sensors from the downloads page
Additional App Support	Edu version of the Programmer App is available for tablets	Retail Version of the Programmer App and Commander App is available for tablets