

# LEGO MINDSTORMS Education EV3 Core Set



**Product number:** 45544

**Product name:** LEGO® MINDSTORMS® Education EV3 Core Set

**Age:** 10-21

**Piece count:** 541

**Brick type:** LEGO Technic

**Theme:** LEGO® MINDSTORMS® Education

**Comments:** See technical specifications on Hardware in the Product Sheets on the Individual Components

**Related products:** 45500, 45501, 45502, 45503, 45505, 45506, 45507, 45508, 45509, 45514, 45515, 45516, 45560, 2000045, 2000046, 2005544

**Product text:** 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 Wi-Fi communication as well as providing programming and data logging. Students are encouraged to brainstorm in order to find creative solutions to problems and then develop them through a process of selecting, building, testing and evaluating them. This is also an excellent way of getting students to talk to each other and cooperate as well as giving them hands on experience with an array of sensors, motors and intelligent units. Instructions for additional models are included in the software. The set also comes in a sturdy storage box with a sorting tray for easy classroom use and storage. The software and battery charger are sold separately. The set includes:

Three interactive servo motors with built-in rotation sensor, ultrasonic sensor, color sensor, gyro sensor and two touch sensors, rechargeable battery, ball wheel, connecting cables, building instructions

## Learning values

- Design and build programmable robots using motors, sensors, gears, wheels, axles, and other technical components
- Understand and interpret two-dimensional drawings to create three-dimensional models
- Build, test, troubleshoot and revise designs to improve robot performance
- Gain practical, hands-on experience using mathematical concepts such as estimating and measuring distance, time, speed
- Communicate effectively using scientific and technical language



