

ALL-IN-ONE MICROCONTROLLER EDUCATION KIT

WITH BUILT-IN ARDUINO-COMPATIBLE MICROCONTROLLER

JOY-IT

SPECIAL FEATURES

- ✓ All-in-one education kit in a compact plastic case with built-in mainboard
- ✓ ATmega328P-compatible microcontroller, ideal for learning embedded programming
- ✓ Wide range of integrated sensors and actuators for hands-on experiments
- ✓ USB-C port for power supply and easy programming via PC
- ✓ No wiring or assembly required – ready to use out of the box
- ✓ Extensive online documentation with step-by-step tutorials and code examples



The All-in-One Microcontroller Education Kit is a comprehensive and beginner-friendly learning platform designed to introduce users to the world of electronics, programming, and embedded systems. The compact kit is housed in a sturdy plastic case and features a fully integrated mainboard with an ATmega328P-compatible microcontroller. Thanks to its enclosed and pre-wired design, no additional hardware assembly is required, allowing users to start learning and experimenting immediately.

A wide range of sensors and actuators is already built into the system, enabling hands-on exploration of key microcontroller concepts such as digital and analog inputs, signal processing, and peripheral control. Typical applications include measuring environmental data, detecting motion and distance, controlling outputs such as LEDs, buzzers, relays, and servo motors, as well as displaying information on an integrated LCD. This variety makes the kit suitable for structured lessons as well as creative project-based learning.

Programming and power supply are handled via a conveniently accessible USB-C port on the enclosure. This modern interface ensures a reliable connection and simplifies everyday use in classrooms, laboratories, or at home. The ATmega328P-compatible architecture allows the kit to be programmed using well-known development environments, making it an excellent entry point for users who want to learn industry-standard workflows and transferable skills.

The enclosed plastic case protects the electronics while keeping the system portable and tidy. All components are securely mounted on the mainboard, reducing wear and minimizing setup errors. Additional interfaces are available for further expansion, allowing users to connect external modules and gradually increase project complexity as their skills grow.

Extensive online documentation with detailed explanations and practical code examples accompanies the kit. Step-by-step tutorials guide users through individual modules as well as combined projects, supporting both self-study and teacher-led instruction. Whether used in schools, training centers, workshops, or for personal learning, this all-in-one education kit provides a structured, reliable, and engaging way to explore microcontroller technology and embedded programming.

MAIN FEATURES

Supply voltage	5 V USB-C
Microcontroller	Atmega 328P compatible
Modules (Pin)	Relay (D4), passive buzzer (D3), Ultrasonic sensor (D5, D6), PIR motion sensor (A2), servo motor (D9), linear potentiometer (A0), red LED (D10), analog sound sensor (A1), Button (D7), IR receiver (D2), DHT20 temperature and humidity sensor (A4, A5, 0x38), light sensor (A4, A5, 0x5C), 3-Axis gyroscope (A4, A5, 0x6B), 16x2 lcd display (A4, A5, 0x21)
Additional interfaces provided on the board	Each of these interfaces is provided with a 5V and GND pin via a 4 pin connector interface: 2x I ² C SDA & SCL, UART, Digital D11, Analog A3, Analog A6
Documentation	Detailed online instructions with code examples for all individual modules on the board and some combined projects

FURTHER INFORMATION

Weight	393 g
Dimensions (l x w x h)	198 x 172 x 49 mm
Article number	ARD-SET02
Scope of delivery	Case with built-in mainboard, infrared remote(2xAAA batteries not included), USB-A to USB-C cable (50 cm)
Customs tariff number	8473302000
EAN	4250236830469

