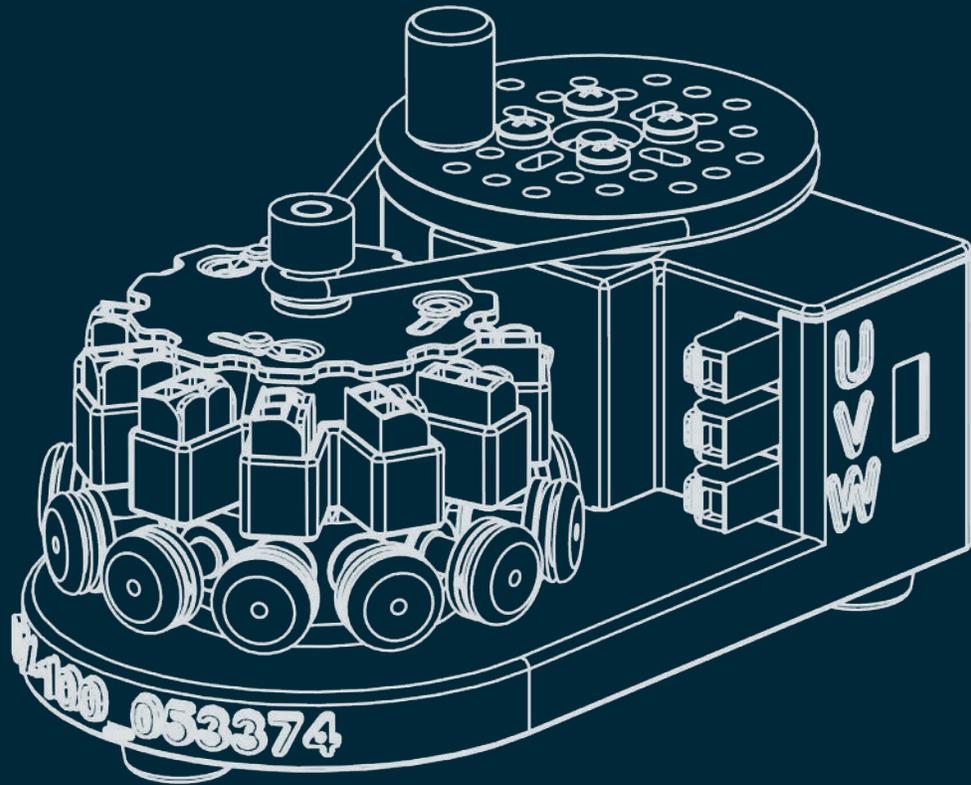




# ConsuKit Student-Built Brushless DC Motor





The EV-100 ConsuKit Student-Built Brushless DC Motor is a powerful hands-on teaching tool for STEM, engineering, and trades programs. Students build a real 3-phase motor or generator from scratch, exploring coil design, magnet placement, and wiring. Safe for classroom use (12–48V DC) and capable of up to 6000 RPM, it delivers real-world results and sparks curiosity in electric vehicles, renewable energy, and automation. Modular, easy to assemble, and backed by step-by-step guides and student worksheets, the EV-100 bridges theory and practice in an unforgettable learning experience.

## EDUCATIONAL ADVANTAGES

The EV-100 ConsuKit Student-Built Brushless DC Motor provides significant educational benefits for both students and teachers.

### For Students

- Offers a hands-on learning experience that reinforces electrical and mechanical concepts for real-world application.
- Allows students to build and test their own motor or generator, developing practical skills in wiring, assembly, and troubleshooting.
- Integrates knowledge from multiple disciplines such as physics, electrical engineering, automation, and renewable energy, making it ideal for STEM and trades programs.
  - In STEM and general science classes, it enables hands-on application of abstract concepts like electromagnetism, induction, and energy conversion.
  - Supports physics courses by reinforcing principles such as torque, voltage generation, and rotational motion.
  - Provides real-world training in motor construction, wiring, and circuit behavior for electrical and electronics technology programs.
  - Highly relevant for engineering and mechatronics courses focused on motor control, power systems, and system integration.
  - Trades and apprenticeship programs — such as those for electricians, industrial mechanics, and automotive technicians — gain practical skills and safe experimentation opportunities.
  - Demonstrates energy generation and storage concepts applicable to wind and solar systems, supporting green energy and environmental studies.
  - Connects directly to electric vehicle propulsion systems and regenerative braking for automotive technology training.
  - Adaptable design and rich instructional support bridge theory and practice across multiple disciplines and skill levels.
- Promotes critical thinking, problem-solving, and creativity through experimentation with coil configurations, magnet placement, and wiring setups.

### For Teachers

- Serves as a flexible and adaptable tool that fits into various curriculums from junior high to post-secondary levels.
- Includes ready-to-use instructional materials like step-by-step guides and student worksheets, simplifying lesson planning and delivery.
- Operates on a safe 12-48V DC range, encouraging safe, inquiry-based exploration in the classroom.
- Connects classroom learning directly to emerging technologies in electric vehicles and clean energy.



**FEATURES**

- Students can experiment with coil configurations, magnet placement, and wiring, enhancing hands-on learning.
- The transparent housing offers clear visibility of internal components, reinforcing visual understanding.
- Packaged in a sturdy storage cardboard box, ensuring secure and organized transportation of all components between classrooms or labs.

**TECHNICAL  
INFORMATIONS****Dimensions****Storage Box:** 9 x 9 x 4 inch ( 22.86 x 22.86 x 10.16 cm)**Product once built:** 3.53 x 6.59 x 3.76 inch (8.96 x 16.74 x 9.55 cm)**Weight:****Storage Box:** 3 lb (1.36 kg)**Product once built:** 1 lb (0.45 kg)

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