



THE ELECTRIC VEHICLE FOR EDUCATION

The Switch Lab EV - PM/96v

A high-impact project that challenges students to build, test and drive an electric vehicle as an educational project.

The Switch Lab EV is the perfect workforce development tool for educators to teach hands-on EV fundamentals. Designed using a component-agnostic approach, it prepares students for careers in electric vehicle technologies.

The Switch Lab EV is a fully functional electric vehicle that empowers students to build, wire, diagnose, and program an EV while practicing low and high voltage safety procedures.

Educational Benefits

- Reusable & rebuildable design for use year after year
- Learn the purpose & functions of EV components
- Demonstrate & practice high voltage safety procedures (OSHA/ASE)
- Grow professional skills - teamwork, time management, attention to detail
- Teach fundamentals of electricity and how to use wiring diagrams
- Test students knowledge through troubleshooting challenges
- Configurable battery management system & motor controller
- Real-time data interpretation from integrated CAN network
- Understand the differences between types of EV chargers
- Exam preparation for ASE xEV level 1 & 2 certifications
- Use across multiple subjects - physics, autoshop, chemistry, engineering, CAD
- Teach up to 15 students at a time
- Street Legal (*most states*)

Features

- Open Chassis with easy access to components
- Electrical components and batteries behind clear removable plastic for safety
- 96v Lithium Iron Phosphate batteries for safety & durability
- Hyper 9 motor with controller (configurable)
- Regenerative braking
- Orion2 Battery management system (configurable)

- Cycle analyst & digital display
- Level 1 & 2 EV charger (J1772)
- Wiring looms for ease of troubleshooting lessons
- Professionally labeled and terminated wiring
- In person Instructor training included
- Access to Switch Vehicles community forum for educators
- Includes all major component user manuals for reference

Add-Ons

- BMS tablet display w/ bluetooth adapter
- High voltage safety equipment available (insulated tools, gloves, hook)
- Multi-meter
- Relay Lab kit w/ wiring crimper set
- Component Lighting Kit (LEDs)
- Switch Lab Organizer

Technical Information

- Fully Assembled
 - 144.3in L x 79in W x 52.4in H
 - 1,350 lbs
- 22kw/h battery - up to 50 miles of range

Warranty

- Honor all major component manufacturer warranties
- 1 year warranty on hardware