



THE SWITCH LAB™ WORKSHOPS

MAKING THE SWITCH

The Electric Vehicle for Education

Our EV Education Workshops are designed to prepare science and automotive instructors planning to bring The Switch Lab™ to their classes, as well as auto and energy industry professionals who want to add EV knowledge and skills to their business.

The structure and content is designed to be both challenging and inspiring – regardless of your previous experience. We cover comprehensive EV history, science and technical skills, and you'll be working as a team to build the Switch EV from the ground up.

Advanced Workshop (4 ½ days) - \$2806

Approved for 36 California CE hours

The building process will include component training, basic electricity, wiring and mechanics:

- Learn EV design and construction
- Learn about EV components
- Lecture in the morning; build the Switch EV in the afternoon
- Lectures are actual curriculum designed for discussion, with demonstrations and additional lab projects
- Materials included: “Build Your Own Electric Vehicle” Text Book, Workshop Manual (Powerpoint Lectures, Notes, Additional Resources)

The Switch Lab™ workshop is often the first step many educators take with us, you will have the same experience you'll be taking to your students. It is also an opportunity to engage with other attendees and workshop instructors on ways to customize the program to have the greatest impact in your class.

For Additional Information and Registration:

<https://www.theswitchlab.com/workshops/>



Workshop Agenda

Day 1 Start Time: 8:30 am	Day 2 Start Time: 8:30 am	Day 3 Start Time: 8:30 am	Day 4 Start Time: 8:30 am
<ul style="list-style-type: none"> • Introductions • Workshop Introductions • Discuss Battery <ul style="list-style-type: none"> • Types • Need To Balance 	<ul style="list-style-type: none"> • Review Prior Day Q&A • Managing The Switch Lab and Running Your Class 	<ul style="list-style-type: none"> • Review Prior Day Q&A • EV Components 	<ul style="list-style-type: none"> • Review Prior Day Q&A • Chassis Build • Battery Box • Charger & Shunt
Morning Break	Morning Break	Morning Break	Morning Break
<ul style="list-style-type: none"> • Begin Balancing the Battery Pack 	<ul style="list-style-type: none"> • Contactors and Relays • Circuits, Watts and Wire • Relay Exercises 	<ul style="list-style-type: none"> • Complete Relay Exercise • Or Optional Discussion: <ul style="list-style-type: none"> • Using the Spreadsheet • Sources of Electricity 	<ul style="list-style-type: none"> • Install: <ul style="list-style-type: none"> • LV Panel • Cycle Analyst • Connect Dash and LV • Batteries and Bms • Control Box • Seats and Seat Belts
Lunch: 12:00 - 1:15	Lunch: 12:00 - 1:15	Lunch: 12:00 - 1:15	Lunch: 12:00 - 1:15
<ul style="list-style-type: none"> • Intro To Switch • Install: <ul style="list-style-type: none"> • Floor • Swing Arm • Trailing Arms • Spindles • Shock Absorbers • Pedal Assembly • Rear Brake Line • Wheels • Discussion: <ul style="list-style-type: none"> • Maintenance • Adjustments • Brake Fluid Options • Review 	<ul style="list-style-type: none"> • Complete Tuesday's Work • Install Components In Vehicle: <ul style="list-style-type: none"> • E-brake and Switch • Brake Sender • Running Lights • Head Lights • Wiring Looms • Steering Shaft and Steering wheel • Bleed Brakes • Review 	<ul style="list-style-type: none"> • Low Voltage Wiring • Assemble: <ul style="list-style-type: none"> • Dashboard • LV Wiring Panel • Control Box • Install: <ul style="list-style-type: none"> • Dashboard • Mount Motor On Swing Arm • Mount Sprockets • Mount Chainguard • Review 	<ul style="list-style-type: none"> • Connect Control Box To: <ul style="list-style-type: none"> • Battery Box • Motor • Rear Light Wiring • Low Voltage Panel • Review • Run Through Start-up Routine • Continue Building And Installing Seats, Running Lights Etc. • Front End Alignment • Test Drives
End Time: 4:30	End Time: 4:30	End Time: 4:30	End Time: 4:30

Advanced Agenda (all above +)

Day 5	
Start Time: 8:30am	End Time: 12:00pm
<ul style="list-style-type: none"> • Controller Programming <ul style="list-style-type: none"> • Alltrax DC • Curtis 1238 AC Inverter • SRIPMxxx Controller • BMS Programming <ul style="list-style-type: none"> • Overview of Battery • Data Required & Finding Data • Available Programming Options 	<ul style="list-style-type: none"> ✓ Save and restore techniques will be taught before programming controllers and BMS. ✓ During programming sessions will be taught how to interface with the device and make changes. ✓ Vehicle will be test driven before and after programming changes (subject to availability).

Shop attire required. Long pants, work boots, etc.

Register at www.theswitchlab.com/workshops

Or call 707-829-5746