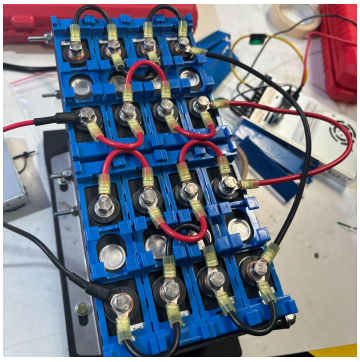
Battery Lab

Product Description

(Product Code: 8 Cell Battery Training Pack)



Battery Lab: A Hands-on Learning Experience

The Battery Lab is an educational desktop project designed to teach students about the functions and assembly of lithium iron phosphate (LiFePO4) battery cells. This interactive kit provides a hands-on approach to understanding battery technology, making it an essential learning tool for those interested in EV's, electronics, renewable energy, and battery storage systems.

Educational Benefits:

- Reusable & rebuildable project for use year after year
- Learn the purpose & functions of batteries
- Fits on a desk
- Teach fundamentals of series & parallel configurations
- Test students knowledge through troubleshooting challenges
- Practice proper wiring techniques
- Intro to high voltage safety procedures
- Designed for 2 - 3 students per kit

Included Items:

- Kit Components
- 8 Lithium iron phosphate (LiFePO4) battery cells
- LiFeP04 Battery Box including hardware
- Wiring and connectors

- Lithium cell power supply charger (3.6V)
- Instruction manual with guided experiments
- Protective Carrying Case

Project Activities:

- Basic Cell Testing: Measure open-circuit voltage and internal resistance of individual cells.
- Series and Parallel Configuration: Explore how different configurations affect voltage and capacity.
- Battery Pack Assembly: Connect multiple cells (P-S configuration) to form a functional battery pack
- Load Testing: Apply different loads to test battery performance and efficiency.
- Effective initial balancing procedure with Lithium cells

Recommended Add-ons:

- High Voltage Safety Package
- Fundamentals of Electricity Textbook
- Relay Lab Kit (companion project)

Technical Information

- Fully Assembled
  - Dimensions - 8”D x 14”W x 10”H
  - Weight: 38 lbs
  - Voltage: Nominal 25.6v – Maximum 28.8v