

MOBILE RESEARCH LABORATORY ELECTRICAL FIT-OUT

**Custom Electrical Installation for a
WHOI Mobile Research Laboratory**



Scope:

- Complete electrical installation
- Interior LED lighting
- Branch circuit wiring
- Electrical panel installation
- Dedicated laboratory receptacle circuits
- Equipment power connections
- Surface-mounted raceway installation
- Final testing and commissioning

The Challenge

Unlike a traditional laboratory, a mobile research lab must withstand transportation while providing the same reliability expected from a permanent facility.

Every component must be securely mounted, efficiently laid out, and designed for long-term operation in changing environments.

Limited space requires thoughtful routing of electrical systems without sacrificing accessibility for future maintenance.

Why Mobile Research Laboratories Matter

Mobile laboratories allow scientific organizations to perform testing and analysis closer to where data is collected, reducing transport time and improving operational flexibility. These facilities often support oceanographic expeditions, environmental monitoring, engineering field work, and equipment testing before or after deployment. WHOI regularly supports research through advanced instrumentation and field-deployable technologies used around the world.

Project Overview

BD Electrical completed the electrical fit-out of a custom mobile research laboratory for the Woods Hole Oceanographic Institution (WHOI). Designed as a self-contained laboratory, the mobile unit provides researchers with a reliable workspace that can be transported to research facilities, ports, and field locations in support of scientific missions.

The project required careful coordination to integrate lighting, branch circuits, distribution equipment, and laboratory workspace into a compact, highly functional environment.

Our Solution

BD Electrical installed a clean, organized electrical system designed specifically for the compact laboratory environment.

The completed installation features:

- Bright, energy-efficient LED lighting
- Dedicated electrical distribution
- Convenient workbench receptacles
- Organized surface raceway systems
- Easily serviceable electrical equipment
- Professional laboratory-grade finish

The finished laboratory provides researchers with a dependable workspace that can support equipment setup, testing, data collection, and field operations wherever the unit is deployed.