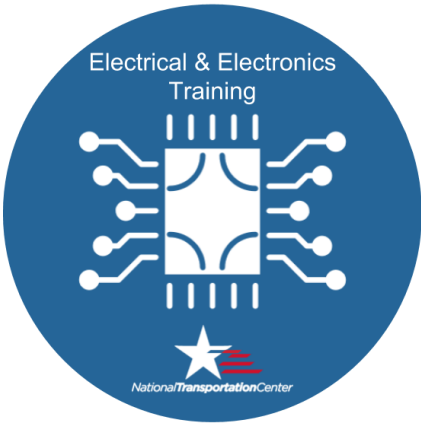
Electrical & Electronics Lab

Turn-key high value skills training

Across industries and across generations, the need has never been greater for electrical and electronics skills that help get work done, maintain valuable equipment and operations, and lead to innovation. In partnership with ATech Training, **the National Transportation Center's Electrical & Electronics Training Lab helps schools, organizations, and communities answer the call of industry for skilled labor.**



The E&E Lab is a turnkey training-in-a-box solution which immediately enables you to help individuals acquire the skills they need in a practical, hands-on, engaging learning experience.

How it works

When you acquire an E&E Lab, you have everything needed to fully train individuals with the electrical and electronics skills so sought after by industry. You provide a dedicated training space and two local instructors. We provide all the electrical and electronics training equipment, curriculum, classroom aids, configuration, and instructor training required to help you launch your new program.

1. Purchase the E&E Lab, identify program administrators instructors, identify dedicated training space, and set a launch date
2. The NTC arrives on-site 2-4 weeks before launch to set up training space and conduct two-day administrator and instructor training
3. You launch your new E&E Lab, training up to 20 participants at a time

Contact: service@nationaltransportationcenter.com

What does training include?

This training program enables participants to build the essential skills and knowledge they need to work with electrical and electronics systems with confidence in entry-level roles, and provides the baseline for advancement in the future.

Participants receive a hands-on overview of electrical systems and an introduction to safe and effective operation of equipment and tools used in the electrical diagnosis and repair. Participants study the fundamentals of electricity and electronics. By the end, they demonstrate a competent understanding of electrical systems.

All training aligns with and helps participants prepare for industry-standard certifications and credentials.

Built by Experts

David Jones is an industry expert in everything you care about: electrical and electronics, technical training, and business. He brings more than ten years of progressive technician and training experience to his curriculum development, is a published author in Electricity and Electronics, and has helped hundreds of technicians grow their skills for industry.

Trained competencies

1. Describe the basic laws of electricity and circuit construction.
2. Identify electrical symbols and components.
3. Calculate resistance, current, and voltage problems using Ohm's Laws.
4. Perform voltage, current, and resistance measurements using the proper measurement devices.
5. Perform voltage drop testing on multiplex and non-multiplex circuits.

Key knowledge

1. Electricity theory basics
2. Electrical circuit basics
3. Electrical Schematic Reading
4. Ohm's Law
5. Circuit diagnostic basics

Costs

The E&E Training Lab base package includes 10 training stations (trainers and computers), 1 instructor station, networking equipment, set-up and configuration, administrator and instructor training, marketing materials, and remote technical support for one year. This Lab can service up to 20 participants at one time in training programs that are highly adaptable to your needs. Multi-year service packages and additional training are available for the future. Contact us for current pricing.

E&E Training Lab FAQ

What does the dedicated training room need to include?

E&E Labs may come in many shapes and sizes. However, there are minimum space and resource requirements, as well as best practices, that will help your Lab succeed.

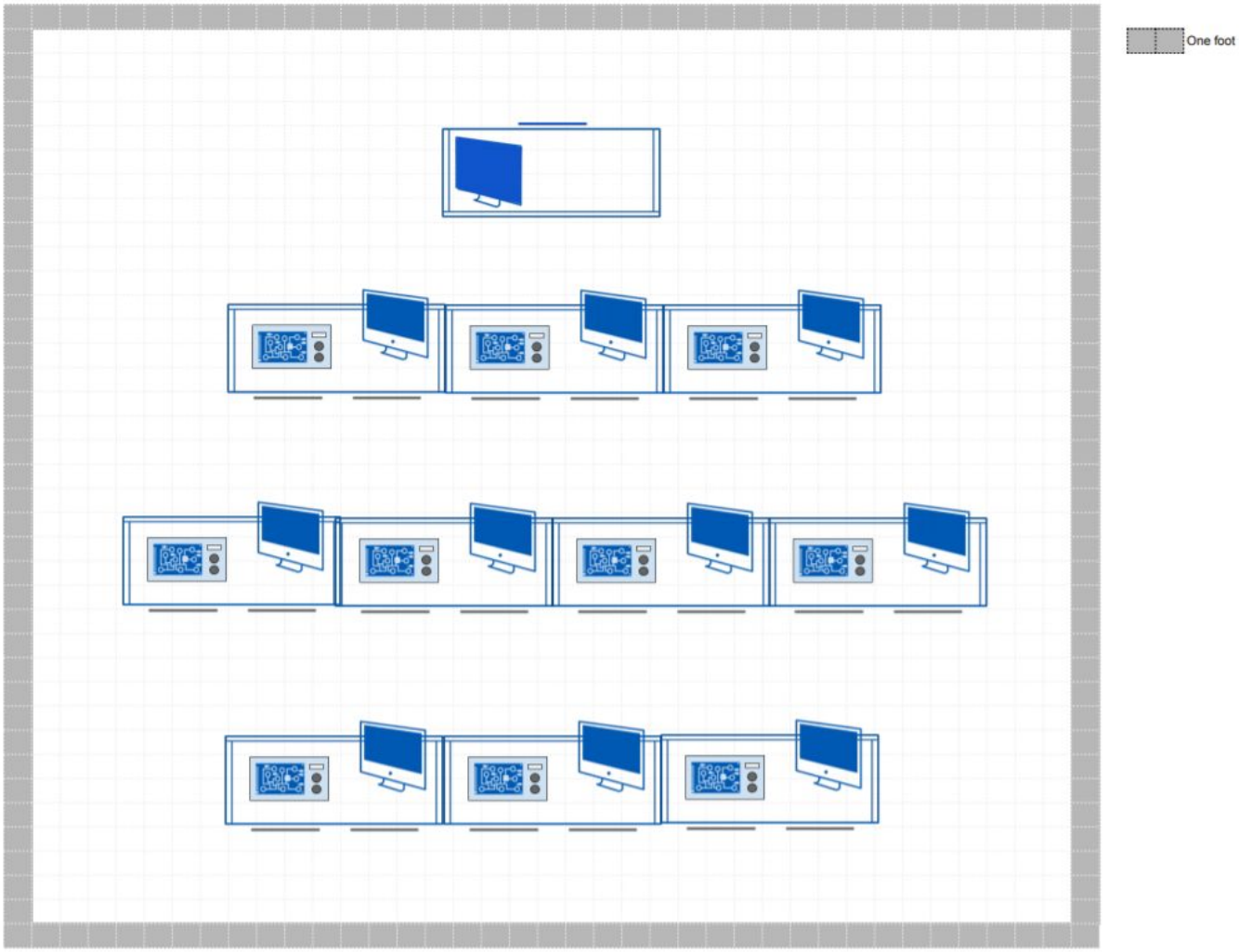
Minimum requirements include:

1. 500+ square feet of training space
   The space must comfortably accommodate 20 participants and an instructor, plus tables, chairs and equipment
2. ~4 feet between training stations
   Each training station is intended to be used by 2 participants, who must sit or stand comfortably next to each other
3. A dedicated instructor area
   The instructor will ideally monitor participant progress on a computer monitor that is not visible to participants; ideally, he or she also has space to address entire groups and a white- or blackboard
4. Reliable, distributed power outlets
   There are no special power supply requirements; however, there is a lot of equipment to plug in around the lab
5. Environment and safety
   The E&E Training Lab must be in a location that is relatively dust-free, safe, and protected from excessive noise or other potential environmental distractions
6. Tables or desks
   The space must be equipped with 10 tables or desks at least 3 feet by 5 feet and 1 additional desk or table for the instructor station.

Internet access in NOT required for E&E Labs; All training stations and the instructor station are networked together and produce a self-contained training mechanism. In the absence of Internet connectivity, transmission of data, including training results and other communications, must take place using portable media (e.g. flash drives).

Other considerations potentially include geographic location and proximity to participants or other programs, lab accessibility and availability, security, parking, maintenance, other support infrastructure. We can help you assess training locations to optimize your lab experience.

Please find an example class layout below. Many other configurations are possible.



Who can be an E&E Facilitator?

The E&E Lab training program is relatively self-contained and does NOT require advanced electrical and electronics expertise from the facilitator. The Lab itself handles most of the curriculum delivery, however, we find that a person with some combination of the following attributes make an ideal lab facilitator:

1. Special interest, aptitude, and experience in education and training, including education technology
2. Special interest, aptitude, and experience in electrical and electronics, in either a training or industry environment
3. Strong communication skills
4. Strong technology skills for using the Training Lab software