

Minimum Physical Requirements

Industrial Electronics training program

The Industrial Electronics training program requires the following minimum physical requirements for successful completion.

Activity Frequency

Activity frequency is based on an eight (8) hour work shift

- Never – 0%
- Occasional – 1%-33% (0 to 2.5 hours per work shift)
- Frequent – 34%-64% (2.5 to 5.5 hours per work shift)
- Continuous – 65% - 100% (5.5+ hours per work shift)

Physical Demand	Frequency	Accommodation and Comments
Sit	Occasional	Seated repair work; meetings, classroom instruction, and remediation classes; Frequency transitioning to rare
Stand	Continuous	To access larger, stationary equipment; When interacting with customers in employment; When at lab station/trainer
Walk	Occasional	To retrieve parts or equipment in classroom and working labs.
Lift up to 10 pounds	Frequent	Hand tools including wrenches, pliers, screwdrivers etc.
Lift up to 20 pounds	Occasional	Electric motors weighs approximately 18 pounds.
Lift up to 50 pounds	Occasional	Task specific including managing a ladder
Handling/Fine motor	Continuous	Adjust, calibrate, and install equipment; Disassemble equipment; Occasional manipulation without vision is necessary; Fine motor with very small fasteners, wires, and measuring product; Computer use for trainings
Tactile Sensation	Continuous	The ability to discern visually occluded objects by touch is essential
Bend, Squat, Crawl, Kneel	Occasional	Place equipment; Test and connect equipment, monitors, etc.; Access equipment from different directions – below, above, etc.
Reaching in all directions	Frequent	Amatrol stations; When accessing connections for removing, replacing, or repairing equipment. Includes overhead reach, horizontal reach, and below waist reach.

The information in this document was gathered from multiple sources including US Department of Labor and Statistics Dictionary of Occupational Titles, physical measurements taken in the MCTI classroom, and information obtained from OAC members. It has been compiled and analyzed by the BND Occupational Therapists and the MCTI Automotive Technology instructor.

Physical Demand	Frequency	Accommodation and Comments
Awkward Position	Occasional	When accessing motor for removing, replacing or repairing equipment. Assembly
Pushing, Pulling	Occasional	Adjusting tension on belts, mechanical drives, and using Amatrol trainers; Moving equipment in training lab
Stair Climbing	Occasional	Elevators available at MCTI
Climb (ladder)	Occasional	Accessing equipment in supply closet
Vision	Continuous	Inspect equipment to identify problems; Read measurement tools; Aids, Magnifiers, and task lights may be used.
Visual Color Discrimination	Frequent	Task specific (i.e.: wiring panels); Identify match or differences between colors including shades and brightness, also black/white
Expressive and Receptive Communication	Continuous	Communicate with supervisors, peers, and customers; Effectively understand others concerns and convey information clearing in one on one and group situations; Auditory and written expression; Follow multi-step written and/or verbal directions; Hearing aids may be used.
Repetitive Motions	Occasional	Dependent upon assigned duties; Frequency is task specific; Hand and arm use intensive.

COMMENTS

- PPE (Personal Protective Equipment) use is typically mandated in competitive integrated employment settings.
- Exposure to pollutants, gases, dust, and odors is occasional.
- Lifting amount, frequency, and overall physical demands will increase in employment settings.
- Color identification may be an issue with task specific cabling, line identification, assembly tasks, and Quality Assurance issues.
- Standing and walking expectations with significantly increase in competitive, integrated employment settings; 10-11 hours daily. Note the timetable above denotes a shift equal to 8 hours.
- Temperature environment can be extreme; 32 degrees to 100+ degrees
- Noisy environment: ear protection required
- Repetitive work with quality and quantity expectations set to industry standards; many companies rotate and/or use universal design to decrease repetitive motion injury.
- Cabling is no longer included in the MCTI training program but may be an essential job function in employment.

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