



# Mechanical/Electrical Engineering

Youth Apprenticeship

## MECHANICAL/ELECTRICAL ENGINEERING

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Mechanical/Electrical Engineering youth apprentices use mechanical/electrical drawings to contribute to the construction of prototypes, concepts, and mechanical/electrical engineering projects. Apprentices must adhere to industry safety and security standards.

**Length of Apprenticeship:** One year. Completion of the Engineering Drafting pathway is a prerequisite to this program.

## COMPETENCIES

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Youth apprentices must complete a **total of 11** competencies. **Ten** must be from the list below. If necessary, employers can substitute **1** competency with another occupationally appropriate skill. That skill should be added to the competency list for assessment.

Competencies
1. Interpret mechanical and/or electrical technical drawings
2. Develop the engineering problem and plan with team
3. Research physical limitations
4. Research required material properties
5. Research manufacturing/assembly process and limitations
6. Design prototype with team
7. Prepare prototype technical drawings
8. Prepare technical drawing prototype
9. Test and revise prototype
10. Analyze prototype test results
11. Apply quality concepts to project

## POST-SECONDARY PATHWAY OPPORTUNITIES

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There are several post-secondary pathway opportunities in this area. The following is a partial list.

- Mechanical Design Technology
- Mechanical Engineering Technology