



WAGE DATA

Rate Type / Statistical Type	Entry level	Mean	Experienced
Annual wage or salary	\$25,629	\$29,200	\$35,500
Hourly wage	\$12.22	\$14.97	\$17.27

JOB DESCRIPTION

Assemblers and fabricators assemble finished products and the parts that go into them. They use tools, machines, and their hands to make engines, computers, aircraft, ships, boats, toys, electronic devices, control panels, and more.

DUTIES

- Read and interpret schematic drawings, diagrams, blueprints, specifications, work orders, or reports to determine materials requirements or assembly instructions.
- Assemble electrical or electronic systems or support structures and install components, units, subassemblies, wiring, or assembly casings, using rivets, bolts, soldering or micro-welding equipment.
- Adjust, repair, or replace electrical or electronic component parts to correct defects and to ensure conformance to specifications.
- Position, align, or adjust work pieces or electrical parts to facilitate wiring or assembly.
- Explain assembly procedures or techniques to other workers.
- Clean parts using cleaning solutions, air hoses, and cloths.
- Drill or tap holes in specified equipment locations to mount control units or to provide openings for elements, wiring, or instruments.
- Fabricate or form parts, coils, or structures according to specifications using drills, calipers, cutters, or saws.
- Confer with supervisors or engineers to plan or review work activities or to resolve production problems.
- Inspect or test wiring installations, assemblies, or circuits for resistance factors or for operation and record results.

TOOLS and TECHNOLOGY

Tools used in this occupation:

Multimeters — Digital multimeters

Screwdrivers — Flathead screwdrivers

Signal generators — Audio signal generators

Stripping tools — Wire strippers

Technology used in this occupation:

Development environment software — National Instruments LabVIEW

Electronic mail software — Microsoft Outlook

Enterprise resource planning ERP software — Sage 100 ERP; SAP software

Network connectivity terminal emulation software — Rasmussen Software Anzio; Terminal emulation software

Spreadsheet software — Microsoft Excel

KNOWLEDGE

- Read and understand schematics and blueprints
- Use hand tools or machines to assemble parts
- Conduct quality control checks
- Work closely with designers and engineers in product development

Assemblers and fabricators have an important role in the manufacturing process. They assemble both finished products and the pieces that go into them. The products encompass a full range of manufactured products, including aircraft, toys, household appliances, automobiles, computers, and electronic devices.

The job of an assembler or fabricator requires a range of knowledge and skills. Skilled assemblers putting together complex machines, for example, read detailed schematics that show how to assemble the machine. After determining how parts should connect, they use hand or power tools to trim, shim, cut, and make other adjustments to fit components together. Once the parts are properly aligned, they connect them with bolts and screws or weld or solder pieces together.

SKILLS

Reading Comprehension — Understanding written sentences and paragraphs in work related documents.

Judgment and Decision Making — Considering the relative costs and benefits of potential actions to choose the most appropriate one.

Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

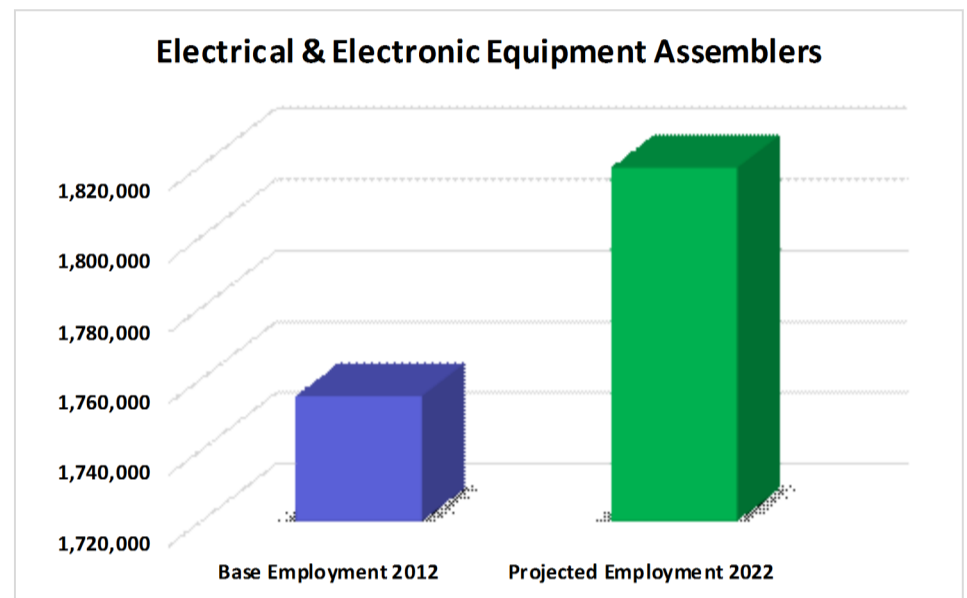
Operation Monitoring — Watching gauges, dials, or other indicators to make sure a machine is working properly.

Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Coordination — Adjusting actions in relation to others' actions.

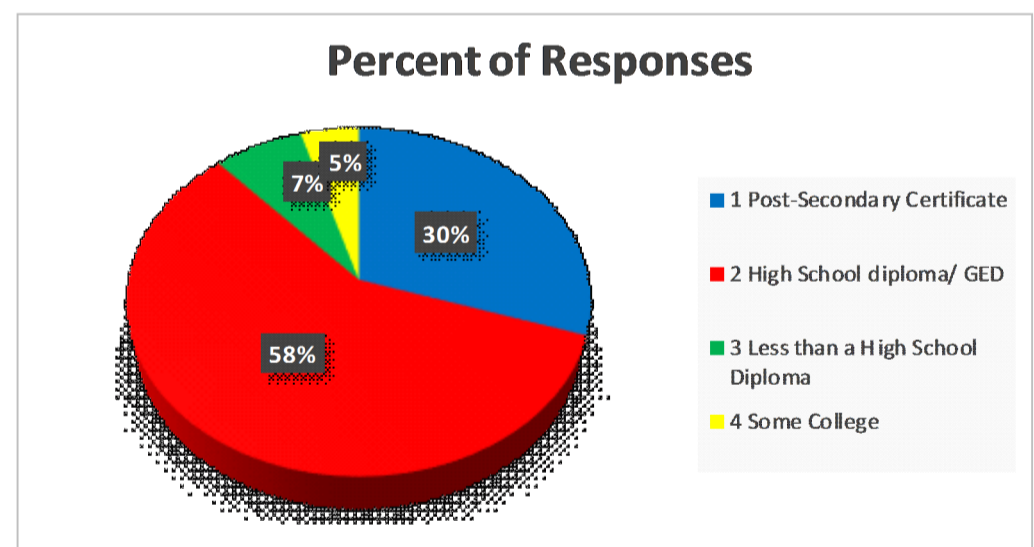
Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

EMPLOYMENT PROJECTION



EDUCATION

The graph below shows the results of a national survey listing the most common required level of education for Electrical & Electronic Equipment Assemblers.



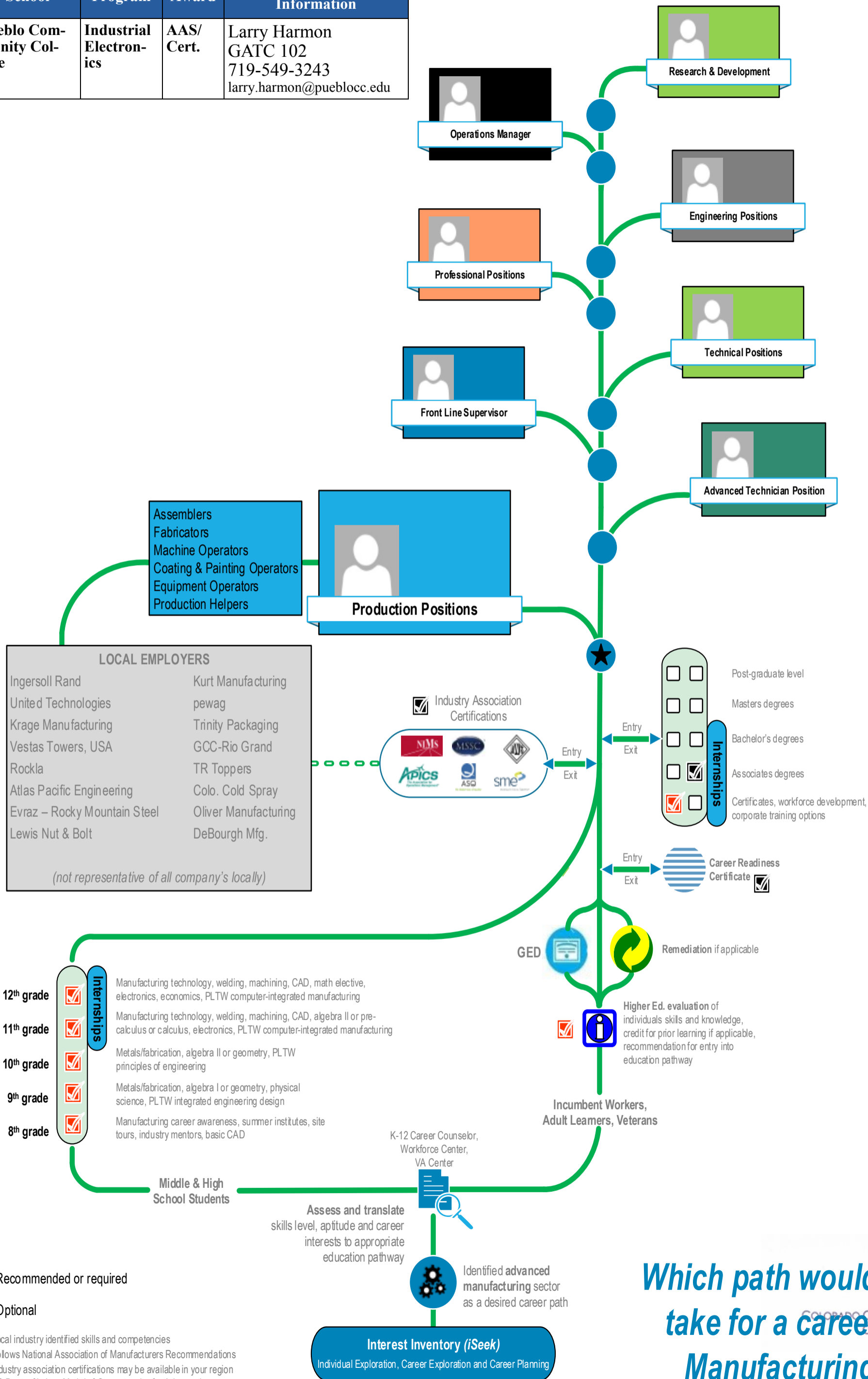
EDUCATION FOR THIS JOB

- 2014 Catalogue of Colorado Advanced Manufacturing Program and Skill Resources
<http://www.coloradomanufacturingcareers.com/>
- Approved Colorado Community College Manufacturing Cluster education programs
<http://www.coloradocommunitycolleges.com/go/programs/skilled-trades-technical-sciences/>
<http://www.coloradocommunitycolleges.com/go/>
- Colorado Four Year Colleges and Universities
<http://higher.education.colorado.gov/academics/colleges/public4year.asp>
- Locations to Get Manufacturing Certificates
<http://www.coloradomanufacturingcareers.com/>



Career Pathway

School	Program	Award	Contact Information
Pueblo Community College	Industrial Electronics	AAS/Cert.	Larry Harmon GATC 102 719-549-3243 larry.harmon@pueblocc.edu



Recommended or required

Optional

- Local industry identified skills and competencies
- Follows National Association of Manufacturers Recommendations
- Industry association certifications may be available in your region
- US Dept. of Labor, Model of Competencies for Advanced Manufacturing is the baseline for education and training needs

Which path would you take for a career in Manufacturing?

COLORADO COMMUNITY COLLEGE SYSTEM