



# Electromechanical/Mechatronics

Youth Apprenticeship

## ELECTROMECHANICAL/MECHATRONICS

Electromechanical/Mechatronics youth apprentices gain skills related to operating, testing, maintaining, or adjusting unmanned, automated, servomechanical, or electromechanical equipment. Apprentices must adhere to industry safety and security standards.

**Length of Apprenticeship:** One year

## REQUIRED COMPETENCIES

Youth apprentices must become proficient in both general employability and occupation-specific competencies. All of these, and examples of how each can be demonstrated, are found in the following pages. A total of 15 occupational competencies must be learned for this occupation. All 7 Manufacturing Fundamentals competencies with no substitutions, and 8 Electromechanical / Mechatronics competencies. Employers may substitute out two of the Electromechanical/Mechatronics competencies and should write in the competencies they are adding. Where necessary, skills can be simulated. Youth apprentices must be evaluated on these competencies at least two times each year of their apprenticeship.

**Note: Students who completed one year of Electromechanical/Mechatronics or a previous Manufacturing YA program do not need to repeat the Manufacturing Fundamentals Competencies.**

Manufacturing Fundamentals Competencies	Electromechanical/Mechatronics Competencies
<ol style="list-style-type: none"><li>1. Focus on customer needs</li><li>2. Use various instruments</li><li>3. Operate tools and equipment safely</li><li>4. Practice quality assurance principles</li><li>5. Follow personal safety requirements</li><li>6. Maintain a safe work environment</li><li>7. Demonstrate professional role to be used in an emergency</li></ol>	<ol style="list-style-type: none"><li>1. Use test instruments</li><li>2. Read blueprints and schematics</li><li>3. Install electrical and electronic parts</li><li>4. Use hand tools</li><li>5. Install mechanical equipment</li><li>6. Troubleshoot electronic systems</li><li>7. Use precision measuring instruments</li><li>8. Procure parts</li></ol>

## REGISTERED APPRENTICESHIP BRIDGING OPPORTUNITIES

Some of the related instruction courses can bridge into the following registered apprenticeship:

- Electrical and Instrumentation (E&I) Technician
- Mechatronics

## POST-SECONDARY PATHWAY OPPORTUNITIES

There are several post-secondary pathway opportunities in this area. Following is partial list.

- Mechatronics Basics Technical Diploma
- Electromechanical Maintenance Technician Technical Diploma



# ELECTROMECHANICAL/MECHATRONICS

Youth Apprenticeship  
ON-THE-JOB LEARNING PERFORMANCE STANDARDS GUIDE

## YOUTH APPRENTICE INFORMATION

Youth Apprentice Name
YA Coordinator
YA Consortium
School District

## SIGNATURES

The On-the-Job Learning Performance Standards Guide includes a list of competencies youth apprentices learn through mentoring and training at the worksite.

Instructions for the Worksite Employers/Mentors and School-Based or YA coordinators.

This document should be reviewed with the employer / mentor, school-based or YA coordinator on a regular basis with the youth apprentice to record progress and plan future steps to ensure completion of the required competencies. Mentors, school-based / YA coordinator, and the apprentice sign below.

### Employer/Mentor

#### 1<sup>st</sup> Evaluation (Required)

#### 2<sup>nd</sup> Evaluation (Required)

Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed

#### 3<sup>rd</sup> Evaluation (Optional)

#### 4<sup>th</sup> Evaluation (Optional)

Employer/Mentor Signature	Employer/Mentor Signature
Employer/Mentor	Employer/Mentor
Business/Company	Business/Company
Date Signed	Date Signed

**School-Based and/or YA Coordinator**

**1<sup>st</sup> Evaluation (Required)**

School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator
School District or Organization
Date Signed

**2<sup>nd</sup> Evaluation (Required)**

School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator
School District or Organization
Date Signed

**3<sup>rd</sup> Evaluation (Optional)**

School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator
School District or Organization
Date Signed

**4<sup>th</sup> Evaluation (Optional)**

School-Based and/or YA Coordinator Signature
School-Based and/or YA Coordinator
School District or Organization
Date Signed

**Youth Apprentice**

**1<sup>st</sup> Evaluation (Required)**

Youth Apprentice Signature
Youth Apprentice
School District / High School
Date Signed

**2<sup>nd</sup> Evaluation (Required)**

Youth Apprentice Signature
Youth Apprentice
School District / High School
Date Signed

**3<sup>rd</sup> Evaluation (Optional)**

Youth Apprentice Signature
Youth Apprentice
School District / High School
Date Signed

**4<sup>th</sup> Evaluation (Optional)**

Youth Apprentice Signature
Youth Apprentice
School District / High School
Date Signed

## EMPLOYABILITY SKILLS (TO BE COMPLETED BY YA EMPLOYER/MENTOR)

All youth apprentices must demonstrate the key employability skills listed below in order to complete the YA program. They do so by earning at least a "Meets Expectation" rating in each. **At least two evaluations are required each year of a youth apprenticeship.** More columns are included below for those who choose to conduct more frequent reviews.

<b>1</b>	<b>Working to Meet Expectations:</b> Needs improvement; requires much assistance and supervision; rarely displays this behavior
<b>2</b>	<b>Meets Expectations:</b> Meets entry-level criteria; requires some supervision; often displays this behavior
<b>3</b>	<b>Exceeds Expectations:</b> Exceeds entry-level criteria; requires minimal supervision; consistently displays this behavior

Employability Skills		Rating			
Competency and Rating Criteria		Initial	Mid Year 1	Mid Year 2	Final
1. Develops positive work relationships with others. <i>Examples of qualities and habits that the employee might exhibit include:</i>	<ul style="list-style-type: none"> <li>Interacts with others with respect and in a non-judgmental manner</li> <li>Responds to others in an appropriate and non-offensive manner</li> <li>Helps co-workers and peers accomplish tasks or goals</li> <li>Applies problem-solving strategies to improve relations with others</li> <li>When managing others, shows traits such as compassion, listening, coaching, team development, and appreciation</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
2. Communicates effectively with others <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>Adjusts the communication approach for the target audience, purpose, and situation to maximize impact</li> <li>Organizes messages/information in a logical and helpful manner</li> <li>Speaks clearly and writes legibly</li> <li>Models behaviors to show active listening</li> <li>Applies what was read to actual practice</li> <li>Asks appropriate questions for clarity</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
3. Collaborates with others <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>Works effectively in teams with people of diverse backgrounds regardless of sex, race, ethnicity, nationality, sexuality, religion, political views, and abilities</li> <li>Shares responsibility for collaborative work and decision making</li> <li>Uses the problem-solving process to work through differences of opinion in a constructive manner to achieve a reasonable compromise</li> <li>Avoids contributing to an unproductive group conflict</li> <li>Shares information and carries out responsibilities in a timely manner</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3

Employability Skills		Rating			
Competency and Rating Criteria		Initial	Mid Year 1	Mid Year 2	Final
4. Maintains composure under pressure <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Uses critical thinking to determine the best options or outcomes when faced with a challenging situation</li> <li>• Carries out assigned duties while under pressure</li> <li>• Acts in a respectful, professional, and non-offensive manner while under pressure</li> <li>• Applies stress management techniques to cope under pressure</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
5. Demonstrates integrity <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Carries out responsibilities in an ethical, legal and confidential manner</li> <li>• Responds to situations in a timely manner</li> <li>• Takes personal responsibility to correct problems</li> <li>• Models behaviors that demonstrate self-discipline, reliability, and dependability</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
6. Performs quality work <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Carries out written and verbal directions accurately</li> <li>• Completes work efficiently and effectively</li> <li>• Performs calculations accurately</li> <li>• Conserves resources, supplies, and materials to minimize costs and environmental impact</li> <li>• Uses equipment, technology, and work strategies to improve workflow</li> <li>• Applies problem-solving strategies to improve productivity</li> <li>• Adheres to worksite regulations and practices</li> <li>• Maintains an organized work area</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
7. Provides quality goods or services (internal and external) <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Shows support for the organizational goals and principles by own personal actions</li> <li>• Displays a respectful and professional image to customers</li> <li>• Displays an enthusiastic attitude and desire to take care of customer needs</li> <li>• Seeks out ways to increase customer satisfaction</li> <li>• Produces goods to workplace specifications</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
8. Shows initiative and self-direction <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Prioritizes and carries out responsibilities without being told</li> <li>• Responds with enthusiasm and flexibility to handle tasks that need immediate attention</li> <li>• Reflects on any unsatisfactory outcome as an opportunity to learn</li> <li>• Improves personal performance by doing something different or differently</li> <li>• Analyzes how own actions impact the overall organization</li> <li>• Supports own action with sound reasoning and principles</li> <li>• Balances personal activities to minimize interference with work responsibilities</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3

Employability Skills		Rating			
Competency and Rating Criteria		Initial	Mid Year 1	Mid Year 2	Final
9. Adapts to change <i>Examples of qualities and habits that the employee might exhibit include . . . Shows flexibility and willingness to learn new skills for various job roles</i>	<ul style="list-style-type: none"> <li>• Uses problem-solving and critical-thinking skills to cope with changing circumstances</li> <li>• Modifies own work behavior based on feedback, unsatisfactory outcomes, efficiency, and effectiveness</li> <li>• Displays a "can do" attitude</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
10. Demonstrates safety and security regulations and practices <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Follows personal safety requirements</li> <li>• Maintains a safe work environment</li> <li>• Demonstrates professional role in an emergency</li> <li>• Follows security procedures</li> <li>• Maintains confidentiality</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
11. Applies job-related technology, information, and media <i>Examples of qualities and habits that the employee might exhibit include . . .</i>	<ul style="list-style-type: none"> <li>• Applies technology effectively in the workplace</li> <li>• Assesses and evaluates information on the job</li> <li>• Assesses training manuals, website, and other media related to the job</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
12. Fulfills training or certification requirements for employment <i>Examples of this requirement may include . . .</i>	<ul style="list-style-type: none"> <li>• Participation in required career-related training and/or educational programs</li> <li>• Passing certification tests to qualify for licensure and/or certification</li> <li>• Participation in company training or orientation</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3
13. Sets personal goals for improvement <i>Examples of this requirement may include . . .</i>	<ul style="list-style-type: none"> <li>• Setting goals that are specific and measurable</li> <li>• Setting work-related goals that align with the organization's mission</li> <li>• Identifying strategies to reach goals</li> <li>• Reflecting on goal progress to regularly evaluate and modify goals</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3

## COMPETENCIES (TO BE COMPLETED BY YA EMPLOYER/MENTOR)

Youth apprentices must earn a rating of at least "MEETS EXPECTATIONS" in each competency by the conclusion of the apprenticeship. A total of 15 competencies, 13 must be from the list below. All 7 Manufacturing Fundamentals competencies with no substitutions, plus 6 Electromechanical /Mechatronic competencies. Employers may substitute two Electromechanical / Mechatronic competencies with other occupationally appropriate skills. Those skills should be added to the competency list for assessment. Where necessary, skills can be simulated. **At least two evaluations are required each year of a youth apprenticeship.** More columns are included below for those who choose to conduct more frequent reviews.

**Note: Students who completed a previous Manufacturing YA program do not need to repeat the Manufacturing Fundamentals Competencies.**

<b>1</b>	<b><i>Working to Meet Expectations:</i></b> Needs improvement; requires much assistance and supervision; rarely displays this behavior
<b>2</b>	<b><i>Meets Expectations:</i></b> Meets entry-level criteria; requires some supervision; often displays this behavior
<b>3</b>	<b><i>Exceeds Expectations:</i></b> Exceeds entry-level criteria; requires minimal supervision; consistently displays this behavior

Manufacturing Fundamentals Occupational Competencies		Rating			
Competency and Rating Criteria		Evaluation			
		Minimum Rating of 2 EACH Check Rating			
		Initial	Mid Year 1	Mid Year 2	Final
<b>1. Focus on customer needs</b>	<ul style="list-style-type: none"> <li>identify internal and external customers impacted by the production process</li> <li>satisfy internal and external customer's expectations</li> <li>collaborate with team</li> <li>assist work site professional to keep internal and/or external customers informed of project progress and decisions that may affect them</li> <li>define the impact of the Voice of the Customer</li> <li>determine the impact of your work to the internal and external customer</li> </ul>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/> 1
		<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2	<input type="checkbox"/> 2
		<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3	<input type="checkbox"/> 3

Manufacturing Fundamentals Occupational Competencies		Rating			
Competency and Rating Criteria		Evaluation			
		Minimum Rating of 2 EACH Check Rating			
		Initial	Mid Year 1	Mid Year 2	Final
<b>2. Use various instruments</b> <ul style="list-style-type: none"> <li>consider the degree of precision required by the part feature</li> <li>choose correct measuring instrument for task</li> <li>verify equipment is available for use and in working order</li> <li>verify equipment preventative maintenance and/or calibration</li> <li>inspect tools and work area for safety considerations</li> <li>clean and adjust measuring instrument prior to use</li> <li>use gauges, calipers, and micrometer instruments</li> <li>use semi-precision and precision layout tools</li> <li>use digital gauges, checking fixtures</li> <li>use digital scales, thermometers</li> <li>confirm measurement accuracy</li> <li>record measurement correctly including unit of measurement at proper interval</li> <li>calibrate, clean, and store measuring instruments properly</li> <li>convert standard to metric – metric to standard measurement units</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>3. Operate tools and equipment safely</b> <ul style="list-style-type: none"> <li>operate only tool/equipment that he/she is trained on</li> <li>choose correct tool/equipment for the task</li> <li>follow tool check list</li> <li>verify tool/equipment is available for use and in working order</li> <li>verify tool/equipment is current for preventative maintenance and/or calibration</li> <li>wear appropriate personal protective equipment (PPE)</li> <li>inspect tool/equipment and work area for safety considerations</li> <li>prepare tool/equipment for safe operation</li> <li>operate tool/equipment safely with guarding devices</li> <li>monitor tool/equipment for safe operation while operating</li> <li>compare tool/equipment performance regularly to optimal equipment operations</li> <li>follow facility procedures for clean-up and shut down after use</li> <li>perform required preventative maintenance procedures</li> <li>report abnormal tool/equipment conditions</li> <li>properly shuts down and labels any tool/equipment that is not operating as expected</li> <li>follow Lock Out/Tag Out procedures as applicable</li> <li>document use and maintenance</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3



Manufacturing Fundamentals Occupational Competencies		Rating			
Competency and Rating Criteria		Evaluation			
		Minimum Rating of 2 EACH Check Rating			
		Initial	Mid Year 1	Mid Year 2	Final
<b>4. Practice quality assurance principles</b> <ul style="list-style-type: none"> <li>inspect materials/piece/product at all stages of production</li> <li>identify quality or condition of materials/piece/product</li> <li>monitor materials, processes, equipment, tools, and products throughout the production process</li> <li>inspect final product/piece to ensure it meets specifications</li> <li>identify and segregate materials and/or product that do not meet specification</li> <li>communicate with work site professional if materials/product do not meet requirements</li> <li>document all quality checks</li> <li>participate in root-cause analysis of process/product</li> <li>take ownership of work</li> <li>collaborate with work site professional on corrective action</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>5. Follow personal safety requirements (safety)</b> <ul style="list-style-type: none"> <li>participate in required safety training</li> <li>follow all worksite guidelines for personal safety</li> <li>apply principles of proper body mechanics</li> <li>report exposures, injuries, near misses, or accidents, personal or to others immediately</li> <li>locate key information on material safety data sheets (MSDS)</li> <li>handle and dispose of any hazardous materials appropriately</li> <li>operate equipment that he/she is trained on</li> <li>adhere to equipment safety standards</li> <li>visually inspect equipment before operation</li> <li>wear required personal protective equipment (PPE) at all times</li> <li>follow company emergency action plan</li> <li>identify hazardous conditions and restricted areas in the workplace</li> <li>avoid pinch points</li> <li>be aware of surroundings</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

Manufacturing Fundamentals Occupational Competencies		Rating			
Competency and Rating Criteria		Evaluation			
		Minimum Rating of 2 EACH Check Rating			
		Initial	Mid Year 1	Mid Year 2	Final
<b>6. Maintain a safe work environment (safety)</b> <ul style="list-style-type: none"> <li>comply with posted safety warnings and symbols</li> <li>identify unsafe conditions and/or work habits</li> <li>report unsafe conditions and/or work habits</li> <li>help maintain a clean and safe working environment free of debris and obstacles</li> <li>maintain clean, organized work area</li> <li>use hazardous materials according to company procedure</li> <li>report any indications of insects or pests, if necessary</li> <li>follow appropriate Lock out – tag out procedures</li> <li>adhere to Occupational Safety and Health Administration (OSHA) Safety guidelines</li> <li>follow rules for operating equipment (Powered Industrial Vehicle PIV)</li> <li>identify applicable Emergency Stops</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>7. Demonstrate professional role to be used in an emergency (safety)</b> <ul style="list-style-type: none"> <li>participate in emergency safety simulations and drills</li> <li>describe company's policy and procedures for work site incidents, accidents, electrical, fire, tornado, bomb threats, robbery, hostage situations, and other emergency situations</li> <li>identify the closest fire alarms and emergency exits</li> <li>identify the fire extinguishers</li> <li>identify appropriate alarms and procedures for using alarms</li> <li>contact emergency personnel in the event of an emergency</li> <li>contribute to emergency incident documentation</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>Competency Substitute</b> (if you replaced a competency above, note the competency and rating)		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>Comments:</b>					

**Electromechanical/Mechatronic (TO BE COMPLETED BY YA EMPLOYER/MENTOR)**

<b>Occupational Competencies</b>		<b>Rating</b>			
<b>Competency and Rating Criteria</b>		<b>Evaluation</b>			
		<b>Minimum Rating of 2 EACH Check Rating</b>			
		<b>Initial</b>	<b>Mid Year 1</b>	<b>Mid Year 2</b>	<b>Final</b>
<b>1. Use test instruments</b> <ul style="list-style-type: none"> <li>wear proper personal protective equipment (PPE)</li> <li>adhere to arc flash safety</li> <li>operate multimeters</li> <li>operate micrometers</li> <li>use rules, tapes, and related measuring devices</li> <li>determine dimensions and tolerances</li> <li>measure voltage</li> <li>measure current</li> <li>measure resistance</li> <li>set and use torque wrench</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>2. Read blueprints and schematics</b> <ul style="list-style-type: none"> <li>identify symbols</li> <li>describe parts and specifications</li> <li>interpret parts and specifications</li> <li>describe dimensioning information on industrial parts</li> <li>identify use of prints in troubleshooting equipment and devices</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>3. Install electrical and electronic parts</b> <ul style="list-style-type: none"> <li>interpret electrical schematics</li> <li>install electrical field devices</li> <li>plan control cabinet layout</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>4. Use hand tools</b> <ul style="list-style-type: none"> <li>use measuring devices</li> <li>operate drilling tools</li> <li>operate cutting tools</li> <li>operate fastening tools</li> <li>use bending and shaping equipment</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
<b>5. Install mechanical equipment</b> <ul style="list-style-type: none"> <li>assemble tools</li> <li>run wires</li> <li>terminate wires</li> <li>label wire</li> <li>assemble basic panels</li> </ul>		<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3



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