Name of Learning Material: Hybrid PLC - Mechatronics - Chapter 15 Human Machine Interface

SKILLSCOMMONS URL: https://www.skillscommons.org/handle/taaccct/18777


Reviewer’s Name: 

Date Review Completed: 

Review Time Required: 

Rejected? Y/N: 

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**Description**

Communications between processor and HMI (human machine interface) is an important subject as well as interfacing an operator interface. The chapter includes procedures for attaching computers as HMI devices to the CompactLogix processor from A-B and the Siemens 1200 processor. The basic panels for both manufactures are introduced and explored. Buttons as well as other devices are built. The chapter ends with a discussion of graphic standards and a common problem that I commonly refer as the “three-fer” button. The chapter is a starting point for students needing to learn some graphics before launching their careers. While this chapter begins the broad development of HMI panels, the design of panel interfaces and screen interfaces continue in subsequent chapters, especially the chapter on motion and the chapter on plc control.

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**Overview:** Describe overview, features and descriptions, uses, and applications. Include cost, if any for apps.

**Accompanying Video:**
- PLC Series Chapter 15 (Part 1/3) - Human Machine Interface
- PLC Series Chapter 15 (Part 2/3) - Whopper and Conveyor Lab (Honeywell and Allen)
- PLC Series Chapter 15 (Part 3/3) – Allen-Bradley Factory Talk

**Hybrid Lab Text:**
Ch. 16 – Human-Machine Interface Programming (see Additional Public Access to Materials below)

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**1. Type of material:** Animation, assessment tool, assignment, case study, collection, development tool, drill and practice, e-portfolios, learning object repository, online course, open journal article, open textbook, presentation, reference material, repository, social networking tool, textbook, tutorial, workshop and training material.

**2. Technical requirements:** Browser, software or plug-in, Java, HTML, Flash, etc. You can test how it appears on Internet Explorer at http://ipinfo.info/netrenderer/ Note type of device if it is an app (iPad, Android, phone, etc.)

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**3. Identify major learning goals/curriculum objectives:** Purpose of site, goal for learner/user.

**4. Recommended uses:** In-class, homework, individual, team, lecture, etc.

**5. Target population:** Level, course or subject matter, other user groups

**6. Prerequisite knowledge or skills needed:** Course or subject matter, computer skills, other miscellaneous skills

**Evaluation and Observations:** After reviewing the learning material, please indicate your agreement with the following statements by utilizing the scoring scale: Strongly Agree (4), Agree (3), Disagree (2), Strongly Disagree (1), N/A (0). TOTAL

<table>
<thead>
<tr>
<th>Quality of Content – The Learning Material</th>
<th>Strongly Agree: 4</th>
<th>Agree: 3</th>
<th>Disagree: 2</th>
<th>Strongly Disagree: 1</th>
<th>N/A: 0</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>is clear and concise</td>
<td>3</td>
<td></td>
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<tr>
<td>provides a complete demonstration of the concept</td>
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<tr>
<td>demonstrates a core concept grounded in the discipline</td>
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<td>is current and relevant</td>
<td>3</td>
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<td>is supported by appropriate research</td>
<td>3</td>
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<tr>
<td>is self-contained (can be used without requiring an assignment or context)</td>
<td>4</td>
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<tr>
<td>provides accurate information</td>
<td>4</td>
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<tr>
<td>is flexible (can be used in several situations)</td>
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</tbody>
</table>
### Includes an adequate amount of material
4

### Has strong workplace relevance
4

### Integrates the concept well
4

### Overall, the quality of the content is very high
4

**Total: #1 Quality of Content**

### Potential Effectiveness as a Teaching Tool/This Learning Material...

<table>
<thead>
<tr>
<th>Strongly Agree</th>
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<th>Disagree</th>
<th>Strongly Disagree</th>
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</tr>
</tbody>
</table>

- Identifies learning objectives
- Identifies prerequisite knowledge
- Reinforces concepts progressively
- Builds on prior concepts
- Demonstrates relationships between concepts
- Is easy to integrate into curriculum assignments
- Is very efficient (could learn a lot in a short time)
- Can be used to measure student learning outcomes

**Overall, Learning material is a very effective teaching tool**

**Total: #2 Effectiveness as Teaching Tool**

### Ease of Use – This Learning Material...

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<td>2</td>
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<td>4</td>
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</tbody>
</table>

- Is easy to use
- Has very clear instructions
- Is engaging
- Is visually appealing
- Is interactive
- Is of high design quality
- Meets accessibility requirements if able to assess
- If an app, can be used on multiple types of mobile devices and platforms

**Total: #3 Ease of Use**

**Combined TOTAL scores (add together the totals as indicated above for #1, #2, #3)**

106

Optional Information:

**Notes:**

- **Notes:**
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**Final comments:**

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