

CCPS Project Plan

Hardware Plan

8. Introduction

This section discusses special considerations for hardware design and development, identifies hardware deliverables, and presents detailed schedule and resource information.

8.1 Special Considerations

The items discussed below have been identified as issues that must be addressed during development. The estimation and scheduling process has included their impact.

The product must have Underwriter's Laboratory (UL) approval and meet Electromagnetic Interference (EMI) standards. No other requirements are anticipated. (See **Qualification Plan**.)

Due to the limited production anticipated, Design for Manufacture impact is low.

8.2 Hardware Deliverables

The hardware/hardware-related deliverables shown in Table 8.2 are required.

8.3 Development Estimates

8.3.1 Estimation Approach

BoardTech provided all hardware development and delivery for the CCPS boards from BoardTech. The estimate given was 4 prototype boards delivered in 9 months and 60 production boards delivered in 12 months. There is a delivery bonus of \$150,000 for 60 boards being delivered in 12 months (January) and \$75,000 bonus for all 60 boards being delivered by February.

8.3.2 Scope of Estimates

The estimates cover all hardware design, documentation, prototyping, testing, and final delivery.

8.3.3 Estimation Results

Table 8.3.3 shows the estimation results for the hardware deliverables of CCPS. User documentation, project documents, requirements, and software development are treated separately. The data correspond to the intervals shown in task lists and Gantt charts.

8.4 Detailed Scheduling

Table 8.4 shows the final results of scheduling and staffing for the hardware portion of CCPS. The "task" level appears on the project task list.

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TABLE 8.2						
Deliverable	Supplier	Customer	Accept Criteria	Due Date	CWV	Actual Date
Circuit Packs						
CP Interface Spec	Billy Board	BoardTech	Joint sign-off	8/1/2014		
Ckt Pack	BoardTech	CCPS	Circuit Testing	10/1/2014		
Devices						
Prototypes	BoardTech	CCPS	Prototype Testing	9/1/2014		
Final Device	BoardTech	CCPS		1/1/2015		
Wired Equipment						
Enclosures		CCPS	Testing	12/1/2014		

TABLE 8.3.3			
Deliverable	Size	Duration	Effort
<i>Design</i>	1 Document	6 Months	6
Prototype	4 Boards	9 Months	36
Production Delivery	60 Boards	12 Months	720

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TABLE 8.4					
Deliverable Task Sub-Task	Supplier/ Resp	Duration	Due Date	CWV	Actual Date
Interface Spec	<i>MSDS</i>				
<i>Develop Spec</i>	<i>MSDS</i>				
<i>Draft</i>	<i>MSDS</i>				
<i>Inspect</i>	<i>MSDS</i>				
<i>Revise</i>	<i>MSDS</i>				
<i>Baseline</i>	<i>MSDS</i>				
<i>Contract</i>					
<i>Sub-task 1</i>	<i>MSDS</i>				
<i>Sub-task 2</i>	<i>MSDS</i>				
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Deliverable 2					
<i>Task A</i>	<i>MSDS</i>				
<i>Sub-task 1</i>	<i>MSDS</i>				
<i>Sub-task 2</i>	<i>MSDS</i>				
<i>Sub-task 3</i>	<i>MSDS</i>				
•••••					
<i>Testing</i>	<i>MSDS</i>				