Olin Rocketry

Documentation Plan

Document Information		
Author	Kyle Emmi	1/16/2019
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Signatures		
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Revision History		
Version 1	1/16/2019	Initial Release

Required Deliverables					
	Project Manager	**Avionics**	**Structures**	**Recovery**	**Engine**
Pre-Phase A	Program Concept				
	Phase A Plan				
	L1 System Requirments				
	Communication Plan				
	Problem Reporting Plan				
	Documentation Plan				
Design Sprint	Fundraising Plan	Phase A L2 Requirements	Phase A L2 Requirements	Phase A L2 Requirements	Phase A L2 Requirements
	Flight Operations Plan	Work Agreement	Work Agreement	Work Agreement	Work Agreement
	Launch Approval Certification	Technology Development Plan	Technology Development Plan	Technology Development Plan	Technology Development Plan
	Phase A Review Plan	Software Development Plan	Initial Design Document	Initial Design Document	Initial Design Document
			Detailed Equipment List	Detailed Equipment List	Detailed Equipment List
			Aquisition Plan	Aquisition Plan	Aquisition Plan
			Manufacturing Plan	Manufacturing Plan	Manufacturing Plan
Build Spint		Detailed Testing Plan	Detailed Testing Plan	Detailed Testing Plan	Detailed Testing Plan
			Fabrication Quality Report	Fabrication Quality Report	Fabrication Quality Report
Test Sprint		Testing Report	Testing Report	Testing Report	Testing Report
		Technology Development Report	Technology Development Report	Technology Development Report	Technology Development Report
Presentation Sprint	TDR Presentation	Phase A Design Document	Phase A Design Document	Phase A Design Document	Phase A Design Document
	Phase A Fundraising Report				

Deliverable Descriptions

Deliverable	Required From	Sprint	Description
Program Concept	PM	Pre-Phase A	Establishes technology goals and a program concept for the forseable future. This will be presented at the kickoff meeting as a "State of the Union" to provide a focused direction for the team.
Phase A Plan	PM	Pre-Phase A	A formal summary of the current Phase's processes, examples of these are Communication, Technology Development, V&V, etc. This document should state the the budget for the team and each subsystem.
L1 System Requirments	PM	Pre-Phase A	Establishes formal technology goals and definition of mission success criteria. High-level definition of mission objectives, technology demonstration goals, and project constraints. These should be drawn directly from IREC's guidelines.
Communication Plan	PM	Pre-Phase A	An update should be made to the team's previous Communication Plan.
Problem Reporting Plan	PM	Pre-Phase A	An update should be made to the team's previous Problem Reporting Plan.
Documentation Plan	PM	Pre-Phase A	Outlines the schedule for deliverables and assigns responsibility. Each deliverable is described in detail inside.
Fundraising Plan	PM	Design Sprint	Establishes monetary goals for the team and holds the Project Manager accountable to raising the money required for the team's success in the future. This document should lay out the fund raising strategies to be taken through the course of the semester.
Flight Operations Plan	PM	Design Sprint	Establishes clear procedures, safety planning, checklists, and timelines for launch operations. This document should include safety checklists and procedures for nominal flight operations with an accompanying timeline of events for a nominal launch.
Launch Approval Certification	PM	Design Sprint	Simple document stating that all parties have cleared the team for launch on the requested dates and times.
Phase A Review Plan	PM	Design Sprint	Informs the team of who will be attending the TDR at the conclusion of Phase A. This document also cements the time and date of the Technological Design Review.
Phase A L2 Requirements	All Subsystem Leads	Design Sprint	Breaks the L1 requirments into goals for each subsystem in order to achieve mission success. Designs and software to be tested during Phase A should be able to achieve to fulfill all L2 requirements in time.
Work Agreement	All Subsystem Leads	Design Sprint	A collective document for each subsystem that establishes meeting times, work hours, and other items expected from team members.
Technology Development Plan	All Subsystem Leads	Design Sprint	Proposes a timeline and series of goals for developing, testing, and verifying new technologies. This document should serve as the roadmap from Phase A to the end of Phase B. Sets forth tests to be done and a timeline for Technological Readiness Levels (TRL).
Software Development Plan	Avionics Lead	Design Sprint	Establishes a set of deliverables (builds and releases), timetable, workflow, and control plan for flight software development. Control plan must establish build managment and version control.
Initial Design Document	All Hardware Leads	Design Sprint	THIS DOCUMENT IS DUE BY THE INTERNAL DESIGN REVIEW. Lays out a number of conceptual designs that will be whittled down to a testable amount at the IDR. All the designs in this document should be able to meet the L2 requirements through development.
Detailed Equipment List	All Hardware Leads	Design Sprint	Spreadsheet that lists technical information for FLIGHT HARDWARE involved in the current design to be tested in Phase A. Technical information includes quantity, mass, density, volume, power draw, etc.
Aquisition Plan	All Hardware Leads	Design Sprint	Spreadsheet with ordering information for all parts (flight AND test hardware). This should be done as soon as design and test rigs are finalized for shipping purposes.
Manufacturing Plan	All Hardware Leads	Design Sprint	Document certifying that Olin has all the capabilities necessary to manufacture every piece of hardware. Lists the processes to be completed on each component (Note: This will require every part designed to be named in a referencible way).
Detailed Testing Plan	All Leads	Build Sprint	Lays out the procedure for testing. Sets how many tests will be run and what data will be collected. This document should prevent stupid, worthless testing.
Fabrication Quality Report	All Hardware Leads	Build Sprint	Catalogs every part produced and certifies that all were made to specification. Notes any irregularities in each part.
Testing Report	All Leads	Test Sprint	Catalogs conclusions drawn from testing and summarizes what was observed in each test.
Technology Development Report	All Leads	Test Sprint	Certifies that each subsystem's technologies are currently on track according to the Technology Development Plan. If any technologies are off track, states action plans for how the technologies will get back on track.
Phase A Design Document	All Leads	Presentation Sprint	This document will be presented at the Technological Design Review at the end of Phase A and should tell the story of the designs that were tested. Contents should include: all conceptual designs, argument for why tested designs were chosen, summary of tests completed, conclusions drawn for next semester's implementation in an actual rocket.
TDR Presentation	PM	Presentation Sprint	Aggragates all subsystem Phase A Design Documents into one presentable documentation packet for use at the Technological Design Review.
Phase A Fundraising Report	PM	Presentation Sprint	Given to the team as a "State of the Union" address to show how much money we have taken in and how our budget will affect us in future semesters. Success should be determined off of the Fundraising Plan written earlier.