Preliminary Design Review

Team 1064

Total PDR Score: 79.44%

Judge 1		Score	Comments	Judge 2		Score	Comments			
Introduction	**Expectations**			**Introduction**	**Expectations**					
Presentation Outline	Identify all major sections with page numbers	1		Presentation Outline	Identify all major sections with page numbers	1	page numbers missing	2	2	4
Team Organization	Show organization of team. No more than 10 students allowed. Faculty not counted.	2		Team Organization	Show organization of team. No more than 10 students allowed. Faculty not counted.	2		4	2	4
Acronyms	List of words and abbreviations with definitions.	2		Acronyms	List of words and abbreviations with definitions.	2		4	2	4
Systems Overview				**Systems Overview**						
Mission Summary	Description of mission. Copying from the guide is fine.	2		Mission Summary	Description of mission. Copying from the guide is fine.	2		4	2	4
System Requirement Summary	List of high level requirements. Deployment, events at specific altitudes, mode of descent.	2		System Requirement Summary	List of high level requirements. Deployment, events at specific altitudes, mode of descent.	2		4	2	4
System-Level CanSat Configuration Trade & Selection				***System-Level CanSat Configuration Trade & Selection***						
Configuration A, with diagrams	Picture and description of overall structure showing payload descent method, container.	1	Diagrams lack details of the container and tether release mechanisms	Configuration A, with diagrams	Picture and description of overall structure showing payload descent method, container.	1		2	2	4
Configuration B, with diagrams	Same as above but has to be different design.	1		Configuration B, with diagrams	Same as above but has to be different design.	1		2	2	4
Selection and rationale	Identifies selection and provides a list of reasons for selection.	2		Selection and rationale	Identifies selection and provides a list of reasons for selection.	2		4	2	4
Physical Layout				***Physical Layout***						
Dimensions	Picture of payload showing dimensions of structure and any significant structure. Picture and dimensions of container.	2		Dimensions	Picture of payload showing dimensions of structure and propellers and any significant structure. Picture and dimensions of container.	2		4	2	4
Placement of Major Components	Shows location of electronic components, batteries, GPS antenna, radio antenna, actuators.	2		Placement of Major Components	Shows location of electronic components, batteries, GPS antenna, radio antenna, actuators.	2		4	2	4
Launch Configuration	Shows payload inside container with any parts that need stowing in stowed position.	2		Launch Configuration	Shows payload inside container with any parts that need stowing in stowed position.	2		4	2	4
Deployed Configuration	Shows payload outside of container with all parts deployed.	1		Deployed Configuration	Shows payload outside of container with all parts deployed.	1	only shows one parachute instead of two	2	2	4
System Concept of Operations	Description of flight operations from launch to landing and all the steps in between.	1	It is not clear based off of the diagrams and descriptions how the two parachutes are attached/retained	System Concept of Operations	Description of flight operations from launch to landing and all the steps in between.	1		2	2	4
Launch Vehicle Compatibility	Shows or indicates overall dimensions of cansat and compares to envelope dimensions provided in guide.	2		Launch Vehicle Compatibility	Shows or indicates overall dimensions of cansat and compares to envelope dimensions provided in guide.	2		4	2	4
Sensor Subsystem Design				**Sensor Subsystem Design**						
Sensor Subsystem Overview	Brief description of sensors	1		Sensor Subsystem Overview	Brief description of sensors	1	missing camera	2	2	4
Container Air Pressure Sensor Trade and Selection				**Container Air Pressure Sensor Trade and Selection**						
Trade (2 or more sensors)	Show at least 2 different air pressure sensors for the container, with specs for each or statement that none is used.	2		Trade (2 or more sensors)	Show at least 2 different air pressure sensors for the container, with specs for each or statement that none is used.	2		4	2	4
Selection (with criteria)	Selection made and reasons provided or statement none is used.	2		Selection (with criteria)	Selection made and reasons provided or statement none is used.	2		4	2	4
Container GPS Sensor Trade & Selection				***Container GPS Sensor Trade & Selection***						
Trade (2 or more sensors)	Show at least 2 different GPS sensors with specs for each	2		Trade (2 or more sensors)	Show at least 2 different GPS sensors with specs for each	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Container Battery Voltage Sensor Trade & Selection				***Container Battery Voltage Sensor Trade & Selection***						
Trade (2 or more sensors)	Show at least 2 different designs with specs for each	2		Trade (2 or more sensors)	Show at least 2 different designs with specs for each	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Payload Air Pressure Sensor Trade & Selection				***Payload Air Pressure Sensor Trade & Selection***						
Trade (2 or more sensors)	Show 2 different air pressure sensors with specs for each.	2		Trade (2 or more sensors)	Show 2 different air pressure sensors with specs for each.	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Payload Air Temperature Sensor Trade & Selection				***Payload Air Temperature Sensor Trade & Selection***						
Trade (2 or more sensors)	Show at least 2 different temp. sensors with specs for each.	2		Trade (2 or more sensors)	Show at least 2 different temp. sensors with specs for each.	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Payload Rotation Sensor Trade & Selection				***Payload Rotation Sensor Trade & Selection***						
Trade (2 or more sensors)	Show at least 2 different sensors with specs.	2		Trade (2 or more sensors)	Show at least 2 different sensors with specs.	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Payload Battery Voltage Sensor Trade & Selection				***Payload Battery Voltage Sensor Trade & Selection***				0	0	0
Trade (2 or more sensors)	Show at least 2 different designs with specs for each	*2*		Trade (2 or more sensors)	Show at least 2 different designs with specs for each	*2*		4	2	4
Selection (with criteria)	Selection made and reasons provided	*2*		Selection (with criteria)	Selection made and reasons provided	*2*		4	2	4
Payload Camera Trade and Selection				**Payload Camera Trade and Selection**				0	0	0
Trade (2 or more sensors)	Show at least 2 different sensors with specs.	2		Trade (2 or more sensors)	Show at least 2 different sensors with specs.	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Descent Control Subsystem Design				**Descent Control Subsystem Design**						
Descent Control Subsystem Overview	Overview of selected descent control configuration for container and payload.	1		Descent Control Subsystem Overview	Overview of selected descent control configuration for container and payload.	1	needs more detail	2	2	4
Container Descent Control Strategy Selection and Trade				***Payload Descent Control Strategy Selection and Trade***						
Descent Control Strategy Trade (Pre payload deployment, 2 or more strategies)	Show at least two different strategies to control the descent of the container after deployment.	2		Descent Control Strategy Trade (Pre payload deployment, 2 or more strategies)	Show at least two different strategies to control the descent of the container pre payload deployment	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Container Descent Stability Control Strategy Selection and Trade				***Payload Descent Stability Control Strategy Selection and Trade***						
Type of stability control identified (passive or active)	Identify the type of stability control	2		Type of stability control identified (passive or active)	Identify the type of stability control	2		4	2	4
Description of stability control, how is nadir direction maintained	Show/explain how stability is maintained. Keep the payload from swaying.	2		Description of stability control, how is nadir direction maintained	Show/explain how stability is maintained.	2		4	2	4
Trade (2 or more strategies)	Show at least 2 methods	2		Trade (2 or more strategies)	Show at least 2 methods	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4

Descent Rate Estimates				***Descent Rate Estimates***						
First parachute deployed after launch	Show how the descent rate in m/sec for the cansat with the first smaller parachute.	2		Container + Payload (post rocket separation, with clear final results)	Show how the descent rate in m/sec for the container and payload were calculated	2		4	2	4
Second parachute deployed	Show how the descent rate in m/sec for the cansat after release of the second parachute is calculated	2		Container (post release of payload, with clear final results)	Show how the descent rate in m/sec for the container after release of the payload is calculated	2	would be good to have a slide summarising the descent rate and parachute sizes	4	2	4
Mechanical Subsystem Design				**Mechanical Subsystem Design**						
Mechanical Subsystem Overview	Overview of selected mechanical configuration for container and payload.	1		Mechanical Subsystem Overview	Overview of selected mechanical configuration for container and payload.	1	needs more detail on payload overview/configurations	2	2	4
Container Mechanical Layout of Components Trade & Selection				***Container Mechanical Layout of Components Trade & Selection***						
Trade (2 or more strategies)	Should show major components and where they are located. Should not be a list of materials.	2		Trade (2 or more strategies)	Should show major components and where they are located. Should not be a list of materials.	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Payload Mechanical Layout of Components Trade & Selection				***Payload Mechanical Layout of Components Trade & Selection***						
Trade (2 or more strategies)	Should show major components and where they are located. Should not be a list of materials.	2		Trade (2 or more strategies)	Should show major components and where they are located. Should not be a list of materials.	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Payload Pre Deployment Config. Trade & Selection				***Payload Pre Deployment Config. Trade & Selection***						
How stowed configuration is maintained: Trade & Selection (2 or more strategies)	Should show 2 strategies of how the stowed configuration is maintained	2		How stowed configuration is maintained: Trade & Selection (2 or more strategies)	Should show 2 strategies of how the stowed configuration is maintained	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Payload Deployment Configuration Trade and Selection				**Payload Deployment Configuration Trade and Selection**						
Trade (2 or more strategies)	Show at least 2 strategies used in the selection of the payload deployment configuration.	1		Trade (2 or more strategies)	Show at least 2 strategies used in the selection of the payload deployment configuration.	1	only one strategy presented	2	2	4
Selection (with criteria)	Selection made and reasons provided	0		Selection (with criteria)	Selection made and reasons provided	0		0	2	4
Tether Design Trade and Selection				***Tether Design Trade and Selection***						
Trade (2 or more strategies)	Should show major components and where they are located. Should not be a list of materials.	1		Trade (2 or more strategies)	Should show major components and where they are located. Should not be a list of materials.	1	only one strategy presented	2	2	4
Selection (with criteria)	Selection made and reasons provided	0		Selection (with criteria)	Selection made and reasons provided	0		0	2	4
Tether Material Trade and Selection				***Tether Material Trade and Selection***						
Trade (2 or more strategies)	Should present at least two different materials or tether configurations.	2		Trade (2 or more strategies)	Should present at least two different materials or tether configurations.	2		4	2	4
Selection (with criteria)	Selection made and reasons provided	2		Selection (with criteria)	Selection made and reasons provided	2		4	2	4
Container Small Parachute Attachment Mechanism				***Container Small Parachute Attachment Mechanism***						
Attachement to container design	Show design of container attachment mechanism. Should be a simple device where the parachute is attached. Should be passive.	2		Attachement to container design	Show design of container attachment mechanism. Should be a simple device where the parachute is attached. Should be passive.	2		4	2	4
Release mechanism design	Explain how it works.	2		Release mechanism design	Explain how it works.	2		4	2	4
Container Large Parachute Attachment Mechanism				***Container Large Parachute Attachment Mechanism***						
Attachement to container design	Show design of container attachment mechanism. Should be a simple device where the parachute is attached. Should be passive.	1		Attachement to container design	Show design of container attachment mechanism. Should be a simple device where the parachute is attached. Should be passive.	1	confusing diagrams and descriptions, needs improvement	2	2	4
Release mechanism design	Explain how it works.	1		Release mechanism design	Explain how it works.	1		2	2	4
Electronics Structural Integrity	Explain how parts will be secured so nothing breaks during flight.	1		Electronics Structural Integrity	Explain how parts will be secured so nothing breaks during flight.	1	lacks detail	2	2	4
Mass Budget				***Mass Budget***						
Mass of all components	A complete list of all of the components and their mass in grams	2		Mass of all components	A complete list of all of the components and their mass in grams	2		4	2	4
Mass of all structural elements	A complete list of all of the structural components and their mass in grams	2		Mass of all structural elements	A complete list of all of the structural components and their mass in grams	2		4	2	4
Sources or uncertainties	Must document sources of and any uncertainties	1	Missing margins	Sources or uncertainties	Must document sources of and any uncertainties	2		3	2	4
Total Mass	Must document the total masses of components and structural elements	2		Total Mass	Must document the total masses of components and structural elements	2		4	2	4
Margin (with methods for correction)	Mass requirement - Total Mass = Margin. Document the method(s) of correction.	0		Margin (with methods for correction)	Mass requirement - Total Mass = Margin. Document the method(s) of correction.	1	missing margin	1	2	4
C&DH Subsystem Design				**C&DH Subsystem Design**						
CDH Overview	Overview of selected components	2		CDH Overview	Overview of selected components	2		4	2	4
Container Processor and Memory Trade & Selection				***Container Processor and Memory Trade & Selection***						
Processor selections (including processor speed)	Include: boot time, processor speed	2		Processor selections (including processor speed)	Include: boot time, processor speed	2		4	2	4
Memory selections (including memory storage requirements, if applicable)		2		Memory selections (including memory storage requirements, if applicable)		2		4	2	4
Data Interfaces (types and numbers)	Should include the type of pin (GPIO, Analog, Digital, etc.), if it is an input or output, and how many of that type of pin are available.	2		Data Interfaces (types and numbers)	Should include the type of pin (GPIO, Analog, Digital, etc.), if it is an input or output, and how many of that type of pin are available.	2		4	2	4
Trade (2 or more)	At least two processor & memory configurations presented	2		Trade (2 or more)	At least two processor & memory configurations presented	2		4	2	4
Selection (with criteria)	Indicate which selection and why it was chosen	2		Selection (with criteria)	Indicate which selection and why it was chosen	2		4	2	4
Container Real-Time Clock				***Container Real-Time Clock***						
Trade (2 or more)	Hardware clock for maintaining correct time in case of a system reset.	2		Trade (2 or more)	Hardware clock for maintaining correct time in case of a system reset.	2		4	2	4
Selection (with criteria)	Indicate which selection and why it was chosen	2		Selection (with criteria)	Indicate which selection and why it was chosen	2		4	2	4
Container Antenna Trade & Selection				***Container Antenna Trade & Selection***						
Trade (2 or more)	Include range and radiation pattern.	1		Trade (2 or more)	Include range and radiation pattern.	1	missing range	2	2	4
Selection (with criteria)	Indicate which selection and why it was chosen	2		Selection (with criteria)	Indicate which selection and why it was chosen	2		4	2	4
Container Radio Configuration				***Container Radio Configuration***				0	0	0
XBEE Radio Selection	XBEE radio selection, and NETID	2		XBEE Radio Selection	XBEE radio selection, and NETID	2		4	2	4
Discussion of Transmission Control	How often is data transmitted, how does landing handled for end of transmission?	1		Discussion of Transmission Control	How often is data transmitted, how does landing handled for end of transmission?	1	missing info on how landing is handled	2	2	4

Container Telemetry Format	Team must show an example of data transmission matching data format from section 3.3 in Mission Guide	1		Container Telemetry Format	Team must show an example of data transmission matching data format from section 3.3 in Mission Guide	1	missing sample packet (only shows example values)	2	2	4
Container Command Formats	Team must show list of commands and formats	2		Container Command Formats	Team must show list of commands and formats	2		4	2	4
Payload CDH Overview		2		Payload CDH Overview		2		4	2	4
Payload Processor and Memory Trade & Selection				***Payload Processor and Memory Trade & Selection***						
Processor selections (including processor speed)	Include: boot time, processor speed	2		Processor selections (including processor speed)	Include: boot time, processor speed	2		4	2	4
Memory selections (including memory storage requirements, if applicable)	Identify possible memory devices for storing data as a backup.	2		Memory selections (including memory storage requirements, if applicable)	Identify possible memory devices for storing data as a backup.	2		4	2	4
Data Interfaces (types and numbers)	Should include the type of pin (GPIO, Analog, Digital, etc.), if it is an input or output, and how many of that type of pin are available.	2		Data Interfaces (types and numbers)	Should include the type of pin (GPIO, Analog, Digital, etc.), if it is an input or output, and how many of that type of pin are available.	2		4	2	4
Trade (2 or more)	At least two processor & memory configurations presented	2		Trade (2 or more)	At least two processor & memory configurations presented	2		4	2	4
Selection (with criteria)		2		Selection (with criteria)		2		4	2	4
Payload Antenna Trade & Selection				***Payload Antenna Trade & Selection***						
Trade (2 or more)	Include range and radiation pattern.	1		Trade (2 or more)	Include range and radiation pattern.	1	missing range	2	2	4
Selection (with criteria)	Indicate which selection and why it was chosen	2		Selection (with criteria)	Indicate which selection and why it was chosen	2		4	2	4
Payload Radio Configuration				***Payload Radio Configuration***						
XBEE Radio Selection	XBEE radio selection, and NETID	2		XBEE Radio Selection	XBEE radio selection, and NETID	2		4	2	4
Discussion of Transmission Control	How often is data transmitted, how does landing handled for end of transmission?	1		Discussion of Transmission Control	How often is data transmitted, how does landing handled for end of transmission?	1	missing info on how landing is handled	2	2	4
Payload Telemetry Format	Team must show an example of data transmission matching data format from section 3.3 in Mission Guide	1		Payload Telemetry Format	Team must show an example of data transmission matching data format from section 3.3 in Mission Guide	1	missing sample packet	2	2	4
Electrical Power Subsystem Design				**Electrical Power Subsystem Design**						
EPS Overview	Overview of EPS, diagram and components	2		EPS Overview	Overview of EPS, diagram and components	2		4	2	4
Container Electrical Block Diagram	High-level schematic, including voltages and major components	2		Container Electrical Block Diagram	High-level schematic, including voltages and major components	2		4	2	4
Container Power Trade & Selection				***Container Power Trade & Selection***						
Battery selection	No lithium-polymer; a lithium-polymer selection shouldn't be counted as a valid selection	2		Battery selection	No lithium-polymer; a lithium-polymer selection shouldn't be counted as a valid selection	2		4	2	4
Battery configuraiton (series/parallel/other configurations)		2		Battery configuraiton (series/parallel/other configurations)		2		4	2	4
Trade (2 or more)	Show at least two types of batteries	2		Trade (2 or more)	Show at least two types of batteries	2		4	2	4
Selection (with criteria)		2		Selection (with criteria)		2		4	2	4
Container Power Budget	All power consumption should be in watt hours (Wh) only	2		Container Power Budget	All power consumption should be in watt hours (Wh) only	2		4	2	4
Payload Electrical Block Diagram	All power consumption should be in watt hours (Wh) only	2		Payload Electrical Block Diagram	All power consumption should be in watt hours (Wh) only	2		4	2	4
Payload Power Trade & Selection				***Payload Power Trade & Selection***						
Battery selection	No lithium-polymer; a lithium-polymer selection shouldn't be counted as a valid selection	2		Battery selection	No lithium-polymer; a lithium-polymer selection shouldn't be counted as a valid selection	2		4	2	4
Battery configuraiton (series/parallel/other configurations)	Must indicate if parallel, serial or none because only a single cell is used.	2		Battery configuraiton (series/parallel/other configurations)	Must indicate if parallel, serial or none because only a single cell is used.	2		4	2	4
Trade (2 or more)	Show at least two types of batteries	2		Trade (2 or more)	Show at least two types of batteries	2		4	2	4
Selection (with criteria)		2		Selection (with criteria)		2		4	2	4
Payload Power Budget	All power consumption should be in watt hours (Wh) only. Lose a point if team adds up currents.	2		Payload Power Budget	All power consumption should be in watt hours (Wh) only. Lose a point if team adds up currents.	2		4	2	4
Flight Software Design				**Flight Software Design**						
FSW Overview	Should discuss basic FSW architecture including a flowchart showing the software flow, programming languages, development environments and a brief summary of the FSW tasks.	1		FSW Overview	Should discuss basic FSW architecture including a flowchart showing the software flow, programming languages, development environments and a brief summary of the FSW tasks.	1	missing basic FSW flowchart	2	2	4
Container FSW State Diagram	Software state diagrams for payload defining the states and transition conditions of the flight software. Also include sampling of sensors with rates, communications, data storage, mechanism activations, major decision points in the logic and power management.Should also include FSW recovery to correct state after processor reset during flight.	2		Container FSW State Diagram	Software state diagrams for payload defining the states and transition conditions of the flight software. Also include sampling of sensors with rates, communications, data storage, mechanism activations, major decision points in the logic and power management.Should also include FSW recovery to correct state after processor reset during flight.	2	diagrams need to be easier to read	4	2	4
Payload FSW State Diagram	Software state diagrams for container defining states and transition conditions of the flight software.	2		Payload FSW State Diagram	Software state diagrams for container defining states and transition conditions of the flight software.	2		4	2	4
Simulation Mode Software	Description on the simulation mode implementation	2		Simulation Mode Software	Description on the simulation mode implementation	2		4	2	4
Software Development Plan	The software development plan should include prototyping, software subsystem development sequence, development team and test methodology.	0	Not a plan	Software Development Plan	The software development plan should include prototyping, software subsystem development sequence, development team and test methodology.	0		0	2	4
Ground Control System Design				**Ground Control System Design**						
GCS Overview	A simple context diagram showing major components	2		GCS Overview	A simple context diagram showing major components	2		4	2	4
GCS Design	Should have a diagram of the ground station, including components and how they connect	2		GCS Design	Should have a diagram of the ground station, including components and how they connect	2		4	2	4
GCS Antenna Trade & Selection				***GCS Antenna Trade & Selection***						
Trade (show at least 2)	Should include antenna patterns	1		Trade (show at least 2)	Should include antenna patterns	1	missing antenna patterns	2	2	4
Discuss Antenna Mounting Design	Handheld or table top	0		Discuss Antenna Mounting Design	Handheld or table top	0	missing	0	2	4
Selection	Indicate selected design and reasons for selection.	2		Selection	Indicate selected design and reasons for selection.	2		4	2	4

GCS Software	Should include telemetry display prototypes, commercial off the shelf software packages used, real time plotting software design, how the calibration command for the barometric sensor and row/pitch angles will be transmitted and verified, telemetry data recording and media presentation to judges, .csv telemetry file creation for judges.	1		GCS Software	Should include telemetry display prototypes, commercial off the shelf software packages used, real time plotting software design, how the calibration command for the barometric sensor and row/pitch angles will be transmitted and verified, telemetry data recording and media presentation to judges, . csv telemetry file creation for judges.	1	missing prototypes	2	2	4
MQTT Integration	Description of MQTT publishing in the GCS software. Identify programming langiage and libraries used. How is it enabled and disabled.	1	What libraries/languages are used?	MQTT Integration	Description of MQTT publishing in the GCS software. Identify programming langiage and libraries used. How is it enabled and disabled.	1		2	2	4
CanSat Integration and Test				**CanSat Integration and Test**						
CanSat I&T Overview		2		CanSat I&T Overview		2		4	2	4
Subsystem Level Test Plans	Description of the test plan(s) and how implemented	1		Subsystem Level Test Plans	Description of the test plan(s) and how implemented	1	needs more detail, wrong slide heading	2	2	4
Integrated Level Functional Test Plans	Description of the test plan(s) and how implemented	2		Integrated Level Functional Test Plans	Description of the test plan(s) and how implemented	2		4	2	4
Environmental Test Plans	Description of the test plan(s) and how implemented	1		Environmental Test Plans	Description of the test plan(s) and how implemented	1	missing some tests	2	2	4
Simulation Test Plans	Description of the test plan(s) and how implemented	1		Simulation Test Plans	Description of the test plan(s) and how implemented	1	needs more detail	2	2	4
Mission Operations and Analysis				**Mission Operations and Analysis**						
Overview of Mission Sequence of Events	Should start with arrival at the launch site and proceed through recovery and data analysis	2		Overview of Mission Sequence of Events	Should start with arrival at the launch site and proceed through recovery and data analysis	2		4	2	4
Mission Operations Manual Development Plan	Development and content of the MOM should be discussed.	1		Mission Operations Manual Development Plan	Development and content of the MOM should be discussed.	1	lacks detail	2	2	4
CanSat Location and Recovery	How the Cansat container and payload will be located and recovered	0	Need to check if drones are allowed. Missing mailing address for team	CanSat Location and Recovery	How the Cansat container and payload will be located and recovered	0	not sure if drones are allowed. probably private property at VT	0	2	4
Requirements Compliance				**Requirements Compliance**						
Requirements Compliance Overview	Present in tabular form, with columns for the requirement number, description, and on which slide the requirements are discussed and met.	0		Requirements Compliance Overview	Present in tabular form, with columns for the requirement number, description, and on which slide the requirements are discussed and met.	0	missing	0	2	4
Complete Table (All 55 Requirements and All Columns)	All requirements should be present and numbered. There should be a column for the pages that show how they are meeting the requirement.	1		Complete Table (All 55 Requirements and All Columns)	All requirements should be present and numbered. There should be a column for the pages that show how they are meeting the requirement.	1	missing column for reference slides	2	2	4
Management				**Management**						
CanSat Budget - Hardware	All component with prices should be listed in a table	2		CanSat Budget - Hardware	All component with prices should be listed in a table	2		4	2	4
CanSat Budget - Other Costs	All other costs should be listed in a table. There should be a table for overall cost of mission.	0		CanSat Budget - Other Costs	All other costs should be listed in a table. There should be a table for overall cost of mission.	0	not completed	0	2	4
Program Schedule				***Program Schedule***						
Gantt Chart Summary (One Page showing Major Milestones)	One page Gantt chart showing only major milestones	1	Not enough details	Gantt Chart Summary (One Page showing Major Milestones)	One page Gantt chart showing only major milestones	1		2	2	4
Gantt Chart or Table Summary Showing Full Schedule	Table or ANOTHER Gantt chart, which should include detail, including exams and school vacations	1	Not enough details, should break out subsystem design schedule and plans	Gantt Chart or Table Summary Showing Full Schedule	Table or ANOTHER Gantt chart, which should include detail, including exams and school vacations	1		2	2	4
Major Development Activies with Assignments Shown	Development activities should include team or team members assigned to each task	0		Major Development Activies with Assignments Shown	Development activities should include team or team members assigned to each task	0	missing	0	2	4
Conclusions		1		Conclusions		1	insufficient	2	2	4
Quality				**Quality**						
Quality of Powerpoint Presentation	Average is 7.	3	Went over on time, many sections missing, designs were confusing and missing details	Quality of Powerpoint Presentation	Average is 7.	4	only present starred slides for future deliverables	7	2	20
Handling of Questions	Did the team answer the questions ask by the reviewer	2		Handling of Questions	Did the team answer the questions ask by the reviewer	2		4	2	4
								429	262	540