Proliminary Design Povious			Team 1064		Total PDR Sc	OFO	79 //9/		
Preliminary Design Review  Judge 1		Score	Comments	Judge 2	IOURI PDR SC		Comments		
Introduction	Expectations	CCOIE	Comments	Introduction	Expectations	3001	Comments		
Presentation Outline	Identify all major sections with page numbers	-		Presentation Outline	Identify all major sections with page numbers	-	page numbers missing		22 4
Tresentation outline	Show organization of team. No more than 10 students allowed.			Tresentation outline	Show organization of team. No more than 10 students allowed.		page numbers missing	1	· ·
Team Organization	more than 10 students allowed. Faculty not counted.	2		Team Organization	Faculty not counted	2			424
	List of words and abbreviations				List of words and abbreviations with			1	i
Acronyms Systems Overview	with definitions.	2		Acronyms Systems Overview	definitions.	2			4 2 4
	Description of mission. Copying from the guide is fine.				Description of mission. Copying from the guide is fine.				
Mission Summary	List of high level requirements.			Mission Summary	List of high level requirements.			1	44
Sustam Paguirament Summany	List of high level requirements.  Deployment, events at specific altitudes, mode of descent.	2		Sustam Dequirement Summany	List of high level requirements. Deployment, events at specific altitudes, mode of descent.	,			4 3 4
System Requirement Summary System-Level CanSat Configuration Trade & Selection				System Requirement Summary System-Level CanSat Configuration Trade & Selection					<u> </u>
	Picture and description of overall structure showing payload descent		Diagrams lack details of the container and tether		Picture and description of overall structure showing payload descent				
Configuration A, with diagrams	Imethod, container,	1	release mechanisms	Configuration A, with diagrams	method, container.	- 1		1	22 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			224
	different design. Identifies selection and provides a				different design. Identifies selection and provides a	_		1	
Selection and rationale  Physical Layout	list of reasons for selection.			Selection and rationale  Physical Layout	list of reasons for selection.	2			4 2 4
	Picture of payload showing				Picture of payload showing dimensions of structure and				
	dimensions of structure and any significant structure. Picture and				propellers and any significant structure. Picture and dimensions of				
Dimensions	significant structure. Picture and dimensions of container.	2		Dimensions	structure. Picture and dimensions of	2			4 2 4
Simonologic	Shows location of electronic			Difference	Shows location of electronic	_		1	1
Placement of Major Components	components, batteries, GPS antenna, radio antenna, actuators.	2		Placement of Major Components	components, batteries, GPS antenna, radio antenna, actuators.	2			4 2 4
	Shows payload inside container				Shows payload inside container			1	
Launch Configuration	with any parts that need stowing in stowed position.	2		Launch Configuration	with any parts that need stowing in stowed position.	2			424
Deployed Configuration	Shows payload outside of container with all parts deployed.	1		Deployed Configuration	Shows payload outside of container with all parts deployed.	4	only shows one parachute instead of two	1	2 2 4
Deployed Comiguration	Description of flight operations from launch to landing and all the		It is not clear based off of the diagrams and	Deployed Configuration	Description of flight operations from launch to landing and all the steps	_	only anowa one paracritice instead or (WO	1	4
System Concept of Operations	from launch to landing and all the	4	descriptions how the two parachutes are attached/retained	System Concept of Operations	launch to landing and all the steps				224
System concept of Operations	steps in between. Shows or indicates overall		attaciledifetaliled	System concept of Operations	Shows or indicates overall	_		t	
	dimensions of cansat and compares to envelope dimensions				dimensions of cansat and				
Launch Vehicle Compatibility	compares to envelope dimensions provided in guide.	2		Launch Vehicle Compatibility	compares to envelope dimensions provided in guide.	2			4 2 4
Sensor Subsystem Design Sensor Subsystem Overview	Brief description of sensors	-		Sensor Subsystem Design 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			Thisting carriera		
	Show at least 2 different air pressure sensors for the container				Show at least 2 different air pressure sensors for the container				
	pressure sensors for the container, with specs for each or statement				pressure sensors for the container, with specs for each or statement				
Trade (2 or more sensors)	that none is used.  Selection made and reasons provided or statement none is	2		Trade (2 or more sensors)	that none is used.	2		1	44
Selection (with criteria)	provided or statement none is	2		Selection (with criteria)	Selection made and reasons provided or statement none is used.	2			
Container GPS Sensor Trade & Selection	useu.			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 made and reasons				Selection made and reasons			1	
Selection (with criteria)  Container Battery Voltage Sensor Trade & Selection	provided	2		Selection (with criteria)  Container Battery Voltage Sensor Trade & Selection	provided	2			424
	Show at least 2 different designs				Show at least 2 different designs with specs for each				
Trade (2 or more sensors)	with specs for each Selection made and reasons	2		Trade (2 or more sensors)	with specs for each Selection made and reasons	2		1	44
Selection (with criteria)	provided	2		Selection (with criteria)	provided	2			4 2 4
Payload Air Pressure Sensor Trade & Selection	Show 2 different air pressure			Payload Air Pressure Sensor Trade & Selection	Show 2 different air pressure				
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		1	44
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			424
	sensors with specs for each. Selection made and reasons				Selection made and reasons	_		1	
Selection (with criteria) Payload Rotation Sensor Trade & Selection	provided			Selection (with criteria)  Payload Rotation Sensor Trade & Selection	provided				4 2 4
Trade (2 or more sensors)	Show at least 2 different sensors	2		Trade (2 or more sensors)	Show at least 2 different sensors	-			4 2 4
	with specs. Selection made and reasons	- 2			with specs. Selection made and reasons	-		1	* <u> </u>
Selection (with criteria)  Payload Battery Voltage Sensor Trade & Selection	provided	2		Selection (with criteria)  Payload Battery Voltage Sensor Trade & Selection	provided	2		1	4 2 4
	Show at least 2 different designs with specs for each				Show at least 2 different designs with specs for each			1	<u> </u>
Trade (2 or more sensors)	with specs for each Selection made and reasons	2		Trade (2 or more sensors)	with specs for each Selection made and reasons	2		1	44
Selection (with criteria)	provided and reasons	2		Selection (with criteria)	provided and reasons	2		1	44
Payload Camera Trade and Selection	Show at least 2 different sensors			Payload Camera Trade and Selection	Show at least 2 different sensors			1	0 0
Trade (2 or more sensors)	with specs.	2		Trade (2 or more sensors)	with specs.	2		1	44
	Selection made and reasons provided	2			Selection made and reasons provided	2			4 2 4
Selection (with criteria) Descent Control Subsystem Design				Selection (with criteria)  Descent Control Subsystem Design					
	Overview of selected descent control configuration for container				Overview of selected descent control configuration for container				<u> </u>
Descent Control Subsystem Overview	control configuration for container and payload.	1		Descent Control Subsystem Overview	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	Show at least two different				
December Control Cleature Trade (F	Show at least two different			Descent Control Strategy Trade (Pre payload deployment, 2 or more	strategies to control the descent of				
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)	deployment	2			44
	Selection made and reasons	-			Selection made and reasons			1	<u> </u>
Selection (with criteria)  Container Descent Stability Control Strategy Selection and Trade	provided	2		Selection (with criteria)  Payload Descent Stability Control Strategy Selection and Trade	provided	2			4 2 4
Container Descent Stability Control Strategy Selection and Trade Type of stability control identified (passive or active)	Identify the type of stability control	2		Payload Descent Stability Control Strategy Selection and Trade Type of stability control identified (passive or active)	Identify the type of stability control	2			4 2 4
	Show/explain how stability is maintained. Keep the payload from				Show/explain how stability is				
Description of stability control, how is nadir direction maintained	swaying.	2		Description of stability control, how is nadir direction maintained	maintained.	2		1	4 2 4
Trade (2 or more strategies)	Show at least 2 methods Selection made and reasons			Trade (2 or more strategies)	Show at least 2 methods Selection made and reasons	2		1	44
Selection (with criteria)	provided	2		Selection (with criteria)	provided	2		]	4 4

escent Rate Estimates								
	Chau how the descent rate is			Descent Rate Estimates	Chau how the descent rate in			
	Show how the descent rate in m/sec for the cansat with the first				Show how the descent rate in m/sec for the container and payload			
irst parachute deployed after launch	smaller parachute.	2		Container + Payload (post rocket separation, with clear final results)	were calculated	2	4	2
	Show how the descent rate in							
	m/sec for the cansat after release				Show how the descent rate in			
acond parachute deployed	of the second parachute is calculated	9		Container (neet release of payload, with clear final recults)	m/sec for the container after release of the payload is calculated	would be good to have a slide summarising the descent rate and parachute sizes	4	2
econd parachute deployed lechanical Subsystem Design	Calculated	-		Container (post release of payload, with clear final results)  Mechanical Subsystem Design	release of the payload is calculated	descent rate and paracriote sizes	*	
Contained Cabby Stein Beolgii	Overview of selected mechanical			meentamen enboystem beergn	Overview of selected mechanical			
	Overview of selected mechanical configuration for container and				configuration for container and	needs more detail on payload		
echanical Subsystem Overview	payload.	1		Mechanical Subsystem Overview	payload.	1 overview/configurations	2	2
ontainer Mechanical Layout of Components Trade & Selection				Container Mechanical Layout of Components Trade & Selection				
	Should show major components and where they are located. Should not be a list of materials.				Should show major components and where they are located. Should not be a list of materials.			
Trade (2 or more strategies)	and where they are located.	١,		Trade (2 or more strategies)	and where they are located. Should	4		2
Trade (2 of filore strategies)	Selection made and reasons	-		rrade (2 or more strategies)	Selection made and reasons	4	*	2
Selection (with criteria)	provided	2		Selection (with criteria)	provided	2	4	2
yload Mechanical Layout of Components Trade & Selection				Payload Mechanical Layout of Components Trade & Selection				
	Should show major components and where they are located. Should not be a list of materials.				Should show major components and where they are located. Should not be a list of materials.			
	and where they are located.				and where they are located. Should			
Frade (2 or more strategies)	Should not be a list of materials.	2		Trade (2 or more strategies)	not be a list of materials.	2	4	2
Selection (with criteria)	Selection made and reasons provided	١,		Selection (with criteria)	Selection made and reasons provided	a .		2
yload Pre Deployment Config. Trade & Selection	provided	-		Payload Pre Deployment Config. Trade & Selection	provided	2		
yload Fre Deployment Conng. Trade & Selection	Should show 2 strategies of how			rayioad Fre Deployment Comig. Trade & Selection	Should show 2 strategies of how			
low stowed configuration is maintained: Trade & Selection (2 or more	Should show 2 strategies of how the stowed configuration is			How stowed configuration is maintained: Trade & Selection (2 or	Should show 2 strategies of how the stowed configuration is			
ategies)	maintained	2		more strategies)	maintained	2	4	2
	Selection made and reasons				Selection made and reasons			_
Selection (with criteria)	provided	2		Selection (with criteria)	provided	2	4	2
yload Deployment Configuration Trade and Selection	Show at least 2 chateging us at it			Payload Deployment Configuration Trade and Selection	Show at least 2 strategies used in			
	Show at least 2 strategies used in the selection of the payload		l l		Show at least 2 strategies used in the selection of the payload			
Frade (2 or more strategies)	deployment configuration.	1	l l	Trade (2 or more strategies)	deployment configuration.	1 only one strategy presented	2	2
	Selection made and reasons				Selection made and reasons	, , , , , , , , , , , , , , , , , , , ,		<del></del>
selection (with criteria)	provided	0		Selection (with criteria)	provided	0	0	2
ther Design Trade and Selection				Tether Design Trade and Selection				
	Should show major components				Should show major components and where they are located. Should		·	
Frada (2 as mara atratagina)	and where they are located.		l l	Trade (2 or more strategies)	and where they are located. Should	ank one strategy proces	•	2
rade (2 or more strategies)	Should not be a list of materials.			Trade (2 or more strategies)		only one strategy presented	2	
selection (with criteria)	Selection made and reasons provided	0	l l	Selection (with criteria)	Selection made and reasons provided	0	n	2
her Material Trade and Selection	1			Tether Material Trade and Selection	1			
	Should present at least two			Table Marie Made and Octobron				
	different materials or tether		l l		Should present at least two different materials or tether configurations.			
rade (2 or more strategies)	configurations.	2		Trade (2 or more strategies)	materials or tether configurations.	2	4	2
Calcution (with criteria)	Selection made and reasons	_	l l	Colontine (with criteria)	Selection made and reasons			2
Selection (with criteria)	provided	2		Selection (with criteria)	provided		4	
ntainer Small Parachute Attachment Mechanism	Show design of container			Container Small Parachute Attachment Mechanism	Show design of container			
	attachment mechanism. Should be		l l		attachment mechanism. Should be			
	attachment mechanism. Should be a simple device where the		l l		attachment mechanism. Should be a simple device where the			
	parachute is attached. Should be		l l		parachute is attached. Should be			
attachement to container design	passive.	2		Attachement to container design	passive.	2	4	2
telease mechanism design	Explain how it works.	2		Release mechanism design	Explain how it works.	2	4	2
ontainer Large Parachute Attachment Mechanism	L			Container Large Parachute Attachment Mechanism				
	Show design of container				Show design of container			
	attachment mechanism. Should be a simple device where the parachute is attached. Should be				attachment mechanism. Should be a simple device where the parachute is attached. Should be			
	parachute is attached. Should be				narachute is attached Should be	confusing diagrams and descriptions, needs		
Attachement to container design	passive.	1		Attachement to container design	passive.	1 improvement	2	2
Release mechanism design	Explain how it works.	1		Release mechanism design	Explain how it works.	1	2	2
	Explain how parts will be secured				Explain how parts will be secured			
lectronics Structural Integrity	so nothing breaks during flight.	1		Electronics Structural Integrity	so nothing breaks during flight.	1 lacks detail	2	2
	30 Hothing breaks during hight.			Mass Budget				
iss Buaget					A complete list of all of the			
iss Buaget	A complete list of all of the				components and their mass in			
	A complete list of all of the components and their mass in			Managed all annual and a				
	A complete list of all of the components and their mass in	2		Mass of all components	grams A complete list of all of the	2	4	2
	A complete list of all of the components and their mass in	2		Mass of all components	A complete list of all of the	2	4	2
Mass of all components	A complete list of all of the components and their mass in grams A complete list of all of the structural components and their	2			A complete list of all of the structural components and their	2	44	
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fass of all components  lass of all structural elements  lources or uncertainties  lotal Mass  farpin (with methods for correction)  DH Subsystem Design  H Overview  Interior Processor and Memory Trade & Selection  rocessor selections (including processor speed)  lemony selections (including processor speed)  lemony selections (including memory storage requirements, if or selection (including memory storage requirements, if or selection (including memory storage requirements, if or selection (with order and including memory storage requirements, if order (2 or more)  leated (3 or more)  leated (4 or more)  leated (5 or more)  leated (6 or more)	A complete list of all of the components and their mass in grams.  A complete list of all of the smutched components and their mass in grams.  A complete list of all of the smutched components and their smutched components and their smutched components and smutched list of the smut	2		Mass of all structural elements  Sources or uncertainties  Total Mass  Margin (with methods for correction)  CASH Subsystem Design  CDH Overview  Container Processor and Memory Trade & Selection  Processor selections (including processor speed)  Memory selections (including processor speed)  Trade (2 or more)  Selection (with criteria)  Container Real-Time Clock  Trade (2 or more)  Selection (with criteria)  Container Antenna Trade & Selection  Trade (2 or more)  Selection (with criteria)	A complete list of all of the structural components and their mass in grams Must document sources of and any uncertainties. Must document to total masses of components and structural Must document. Total Mass = Margin. Document the total masses of components and structural Mass requirement. Total Mass = Margin. Document the method(s) of correction.  Overview of selected components include: boot time, processor speed include the type of pin (GPIO, Analog, Digital, etc.), if it is (GPIO, Analog, Digital, etc.), if it is (GPIO, Analog, Digital, etc.), if it is final type of pin are available. All least two processor & memory configurations presented indicate which selection and why it was chosen.  Hardware clock for maintaining correct time in case of a system reseat.  Include range and radiation pattern.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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lass of all components  lass of all structural elements  ources or uncertainties  total Mass  largin (with methods for correction)  OH Subsystem Design  H Overview  Intainer Processor and Memory Trade & Selection  rocessor selections (including processor speed)  lemony selections (including processor speed)  led (2 or more)  led (3 or more)  led (4 or more)  led (5 or more)	A complete list of all of the components and their mass in grams A complete list of all of the structural components and their mass in grams A complete list of all of the structural components and their structural components and their structural components and structural elements. Must document the total masses of components and structural elements. Must document the total masses of components and structural elements of components of components. Document the methodoly of correction. Overview of selected components. Include. boot time, processor speed Should include the type of pin (CPHO, Analog, Digisa etc.), if it is an input or outgle, and how many of that type of pin are available. At least two processor & memory configurations presented indicate which selection and why it was chosen Include range and radiation pattern. Include range and radiation and why it was chosen	2 2 2 2 2 2 2 2		Mass of all structural elements  Sources or uncertainties  Total Mass  Margin (with methods for correction)  CASH Subsystem Design  CDH Overview  Container Processor and Memory Trade & Selection  Processor selections (including processor speed)  Memory selections (including processor speed)  Trade (2 or more)  Selection (with criteria)  Container Real-Time Clock  Trade (2 or more)  Selection (with criteria)  Container Antenna Trade & Selection  Trade (2 or more)  Selection (with criteria)	A complete list of all of the structural components and their mass in grams Must document sources of and any uncertainties in the total masses of components and structural elements.  Mass requirement - Total Mass = Margin. Document the method(s) of components and structural elements.  Mass requirement - Total Mass = Margin. Document the method(s) of connection.  Overview of selected components includes boot lime, processor speed.  Include: boot lime, processor speed.  Should include the type of pin (GPHO, Analog, Digital, etc.), if it is of the processor of the	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
dass of all structural elements Sources or uncertainties  Total Mass  Jargin (with methods for correction)  JOH Subsystem Design  Horonoles  Whole Toronoles  Whole Subsystem Design  Horonoles  Whole Toronoles  Whole Subsystem Design  Horonoles  Whole Subsystem Design  Whole Subsystem Design  Whole Toronoles  Whole Target Subsystem  Whole Subsystem Design  Whole Toronoles  Whole Toronole	A complete list of all of the components and their mass in grams. A complete list of all of the structural components and their mass in grams. A complete list of all of the structural components and their mass in grams. We have a component and structural elements. Must document the total masses of components and structural elements. Must document the total masses of components and structural elements. Overview of selected components of correction. Overview of selected components include: boot time, processor speed structural processor includes 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. At least two processor is memory indicates which selection and why it was chosen. Hardware clock for maintaining correct time in case of a system reset. Indicate which selection and why it was chosen.	2 2 2 2 2 2 2 2		Mass of all structural elements  Sources or uncertainties  Total Mass  Margin (with methods for correction)  C&DH Subsystem Design  COH Overview  Container Processor selections (including processor speed)  Memory selections (including memory storage requirements, if applicable)  Data Interfaces (types and numbers)  Trade (2 or more)  Selection (with criteria)  Container Real-Time Clock  Trade (2 or more)  Selection (with criteria)  Container Antenna Trade & Selection  Trade (2 or more)  Selection (with criteria)  Container Antenna Trade & Selection  Trade (2 or more)	A complete list of all of the structural components and their mass in grams  Must document sources of and any uncertainties.  Must document the total masses of  Must document the total masses of  Must document the stati masses of  Must document the stati masses of  Must document the stati masses of  Must document the staticular  deferments.  Total Mass =  Margin. Document the method(s) of  correction.   Overview of selected components   Include: bool time, processor speed   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.  At least two processor a memory  configurations presented  was chosen   Hardware clock for maintaining  correct time in case of a system  reset.  Include which selection and why it  was chosen   Include range and radiation pattern.  Includes which selection and why it  was chosen	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

				-				-
	Team must show an example of data transmission matching data			Team must show an example of data transmission matching data				
Container Telemetry Format	format from section 3.3 in Mission Guide	1	Container Telemetry Format	format from section 3.3 in Mission Guide	missing sample packet (only shows example values)		2 2	
	Team must show list of commands			Team must show list of commands	values)	. —	1 1	1
Container Command Formats	and formats	2	Container Command Formats	and formats	2		4 2	4
Payload CDH Overview Payload Processor and Memory Trade & Selection		2	Payload CDH Overview Payload Processor and Memory Trade & Selection		<u>2</u>		4 2	
	Include: boot time, processor							
Processor selections (including processor speed)	speed Identify possible memory devices	2	Processor selections (including processor speed)	Include: boot time, processor speed Identify possible memory devices	2		42	-
Memory selections (including memory storage requirements, if applicable)	for storing data as a backup.	2	Memory selections (including memory storage requirements, if applicable)	for storing data as a backup.	2		4 2	
	Should include the type of pin			Should include the type of pin				
	(GPIO, Analog, Digital, etc.), if it is an input or output, and how many			(GPIO, Analog, Digital, etc.), if it is an input or output, and how many of				
Data Interfaces (types and numbers)	of that type of pin are available.	2	Data Interfaces (types and numbers)	that type of pin are available.	2		42	2 4 2 4
Trade (2 or more)	At least two processor & memory configurations presented		Trade (2 or more)	At least two processor & memory configurations presented			4 2	
Selection (with criteria)	configurations presented	2	Selection (with criteria)	configurations presented	2		4 2	-
ayload Antenna Trade & Selection			Payload Antenna Trade & Selection					
	Include range and radiation		Toods (O as seen)	Industrial and addition and an				
Frade (2 or more)	Indicate which selection and why it	<u> </u>	Trade (2 or more)	Include range and radiation pattern. Indicate which selection and why it	1 missing range		22	-
Selection (with criteria)	was chosen	2	Selection (with criteria)	was chosen	2		4 2	
ayload Radio Configuration	VDEE		Payload Radio Configuration	VOEE #1 I #1 I NETIO				
KBEE Radio Selection	XBEE radio selection, and NETID  How often is data transmitted, how	2	XBEE Radio Selection	XBEE radio selection, and NETID  How often is data transmitted, how	2		42	-
	does landing handled for end of			does landing handled for end of				
Discussion of Transmission Control	transmission?	1	Discussion of Transmission Control	transmission? Team must show an example of	missing info on how landing is handled		22	-
	Team must show an example of data transmission matching data							
De des d'Edenside France	format from section 3.3 in Mission		Destroy of Telements - Format	data transmission matching data format from section 3.3 in Mission	-1-1			
Payload Telemetry Format lectrical Power Subsystem Design	Guide		Payload Telemetry Format  Electrical Power Subsystem Design	Guide	missing sample packet			
<u> </u>	Overview of EPS, diagram and			Overview of EPS, diagram and				
EPS Overview	components	2	EPS Overview	components	2		42	-
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	
ontainer Power Trade & Selection			Container Power Trade & Selection					
	No lithium-polymer; a lithium-			No lithium-polymer; a lithium-				
Battery selection	polymer selection shouldn't be counted as a valid selection	2	Battery selection	polymer selection shouldn't be counted as a valid selection	2		4 2	
Battery configuration (series/parallel/other configurations)		2	Battery configuration (series/parallel/other configurations)	The state of the s	2		4 2	
	Show at least two types of			Observed breakful to the control of the control			,	
Trade (2 or more) Selection (with criteria)	patteries	2	Trade (2 or more) Selection (with criteria)	Show at least two types of batteries	2		4 2	÷
	All power consumption should be			All power consumption should be in				
Container Power Budget	in watt hours (Wh) only	2	Container Power Budget	watt hours (Wh) only	2		42	-
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	
ayload Power Trade & Selection			Payload Power Trade & Selection					
	No lithium-polymer; a lithium-			No lithium-polymer; a lithium-				
Battery selection	polymer selection shouldn't be counted as a valid selection	2	Battery selection	polymer selection shouldn't be counted as a valid selection	2		4 2	
	Must indicate if parallel, serial or			Must indicate if parallel, serial or				
Battery configuration (series/parallel/other configurations)	none because only a single cell is	2	Battery configuration (series/parallel/other configurations)	none because only a single cell is	2		4 2	
	Show at least two types of	-		useu.			¬	
Trade (2 or more)	batteries	2	Trade (2 or more)	Show at least two types of batteries	2		42	_
Selection (with criteria)	All power consumption should be	2	Selection (with criteria)	All power consumption should be in	2		42	-
	All power consumption should be in watt hours (Wh) only. Lose a			All power consumption should be in watt hours (Wh) only. Lose a point if				
Payload Power Budget ight Software Design	point if team adds up currents.	2	Payload Power Budget	team adds up currents.	2		4 2	
ight Software Design	Should discuss basic FSW		Flight Software Design	Should discuss basic FSW				
	architecture including a flowchart			architecture including a flowchart				2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4
	showing the software flow,			architecture including a flowchart showing the software flow,				
	programming languages, development environments and a			programming languages, development environments and a				
SW Overview	brief summary of the FSW tasks.	1	FSW Overview	brief summary of the FSW tasks.	1 missing basic FSW flowchart		22	2 4 2 4 2 4 4 2 4 4 4 2 4 4 4 4 4 4 4 4
				Software state diagrams for				
	payload defining the states and transition conditions of the flight software. Also include sampling of			payload defining the states and transition conditions of the flight				
	software. Also include sampling of sensors with rates,			software. Also include sampling of sensors with rates,				
	communications, data storage,			communications, data storage,				
	mechanism activations, major			mechanism activations, major				
	decision points in the logic and power management. Should also			decision points in the logic and power management. Should also				
	include FSW recovery to correct			include FSW recovery to correct				
ontainer FSW State Diagram	state after processor reset during	2	Container FSW State Diagram	state after processor reset during	diagrams need to be easier to read		4 ?	
Situation 1 011 Glade Diagram	Software state diagrams for		Container For State Diagram	Software state diagrams for	anagrama fieed to be easier to read			
	Software state diagrams for container defining states and			container defining states and				
ayload FSW State Diagram	transition conditions of the flight software.	2	Payload FSW State Diagram	transition conditions of the flight software.	2		4 2	
	Description on the simulation			Description on the simulation mode			<u> </u>	1
mulation Mode Software	mode implementation	2	Simulation Mode Software	implementation	2		4 2	1
	The software development plan should include prototyping.			The software development plan should include prototyping, software				
	should include prototyping, software subsystem development			should include prototyping, software subsystem development sequence,				
ofhuara Davalonment Plan	sequence, development team and test methodology.	0 Not a plan	Software Development Plan	development team and test methodology.	0		0 2	
oftware Development Plan round Control System Design		I Not a platt	Software Development Plan Ground Control System Design				2	
	A simple context diagram showing			A simple context diagram showing				
CS Overview	major components Should have a diagram of the	2	GCS Overview	major components Should have a diagram of the	2		42	-
	ground station, including			laround station including				
	components and how they connect	2	GCS Design	components and how they connect	2	$\rightarrow$	4 2	
CS Design								
GCS Antenna Trade & Selection	Should include antenno netter:	1	GCS Antenna Trade & Selection	Should include antonno nettorno	1 missing antenna natterna		2 ^	
CCS Design ICS Antenna Trade & Selection Trade (show at least 2) Discuss Antenna Mounting Design	Should include antenna patterns Handheld or table top	1	Trade (show at least 2)	Should include antenna patterns Handheld or table top	1 missing antenna patterns 0 missing		2 2	-
CS Antenna Trade & Selection	Should include antenna patterns Handheld or table top Indicate selected design and	1 0	GCS Antenna Trade & Selection Trade (show at least 2) Discuss Antenna Mounting Design	Should include antenna patterns Handheld or table top Indicate selected design and	1 missing antenna patterns 0 missing		2 2 2	-

	Should include telemetry display				Should include telemetry display			-		
	prototypes, commercial off the				prototypes, commercial off the shelf					
	shelf software packages used, real				software packages used, real time					
	time plotting software design, how				plotting software design, how the					
	the calibration command for the				calibration command for the					
	barometric sensor and row/pitch				barometric sensor and row/pitch					
	angles will be transmitted and				angles will be transmitted and					
	verified, telemetry data recording				verified, telemetry data recording					
	and media presentation to judges,				and media presentation to judges, .					
	.csv telemetry file creation for				csv telemetry file creation for					
S Software	judges.	1		GCS Software	judges.	1	missing prototypes	2	2	
	Description of MQTT publishing in				Description of MQTT publishing in					
	the GCS software. Identify				the GCS software. Identify					
	programming langiage and libraries used. How is it enabled				programming langiage and libraries					
	libraries used. How is it enabled				used. How is it enabled and					
TT Integration	and disabled.	1	What libraries/languages are used?	MQTT Integration	disabled.	1		2	2	
Sat Integration and Test				CanSat Integration and Test						
Sat I&T Overview		2		CanSat I&T Overview		2		4	2	
	Description of the test plan(s) and	_			Description of the test plan(s) and					
system Level Test Plans	how implemented	1 1		Subsystem Level Test Plans	how implemented	1	needs more detail, wrong slide heading	2	2	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Description of the test plan(s) and	_			Description of the test plan(s) and					
grated Level Functional Test Plans	how implemented	2		Integrated Level Functional Test Plans	how implemented	2		4	2	
grades cover i anotional rest i lans	Description of the test plan(s) and	-		mogrator corol i uncuonar react tana	Description of the test plan(s) and	-		¬		
ironmental Test Plans	how implemented	1		Environmental Test Plans	how implemented	4	missing some tests	2	2	
II Online Italia Teat Fidits				Lityronnientai rest Flans	Description of the test plan(s) and	_	minaning aumit tests			
ulation Test Plans	Description of the test plan(s) and			Cimulation Test Diana			neede mere detail	2	2	
ulation Test Plans	how implemented			Simulation Test Plans	how implemented		needs more detail	۷		
sion Operations and Analysis				Mission Operations and Analysis						
	Should start with arrival at the	_			Should start with arrival at the					
	launch site and proceed through				launch site and proceed through					
rview of Mission Sequence of Events	recovery and data analysis	2		Overview of Mission Sequence of Events	recovery and data analysis	2		4	2	
	Development and content of the				Development and content of the					
sion Operations Manual Development Plan	MOM should be discussed.	1		Mission Operations Manual Development Plan	MOM should be discussed.	1	lacks detail	2	2	
	How the Cansat container and				How the Cansat container and					
	payload will be located and		Need to check if drones are allowed. Missing		payload will be located and		not sure if drones are allowed, probably private			
nSat Location and Recovery	recovered	0	mailing address for team	CanSat Location and Recovery	recovered	0	property at VT	0	2	
quirements Compliance				Requirements Compliance						
	Present in tabular form, with				Present in tabular form, with					
	columns for the requirement				columns for the requirement					
	number, description, and on which				number, description, and on which					
	slide the requirements are				slide the requirements are					
quirements Compliance Overview	discussed and met.	l n		Requirements Compliance Overview	discussed and met.	0	missing	0	2	
quirements compliance overview	discussed and met.	-		requirements compliance overview	All requirements should be present	- 0	Illiability	·		
	All requirements should be present				and numbered. There should be a					
	and numbered. There should be a				and numbered. There should be a					
	and numbered. There should be a column for the pages that show				and numbered. There should be a column for the pages that show					
melate Table (All 55 Dequirements and All Column	and numbered. There should be a column for the pages that show how they are meeting the	L		Camplete Table (All EE Desuisonante and All Cohurses)	and numbered. There should be a column for the pages that show how they are meeting the		missing solumn for reference slides	2	2	
	and numbered. There should be a column for the pages that show	1		Complete Table (All 55 Requirements and All Columns)	and numbered. There should be a column for the pages that show	1	missing column for reference slides	2	2	
	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) Management	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	
nagement	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should	1		Management	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be	1	missing column for reference slides	2	2	
nagement	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table	1 2			and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table	1 2	missing column for reference slides	24	2	
nagement	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table  All other costs should be listed in a	1 2		Management	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table.  All other costs should be listed in a	1 2	missing column for reference slides	4	2	
nagement	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All commonent with prices should be listed in a table.  All other costs should be listed in a table. There should be a table for	1 2		Management	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table. There should be a table for	1 2	missing column for reference slides	4	2	
nagement Sat Budget - Hardware Sat Budget - Other Costs	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table  All other costs should be listed in a	1 2		Management  CanSat Budget - Hardware  CanSat Budget - Other Costs	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table.  All other costs should be listed in a	1 2 0	missing column for reference slides	40	2 2	
agement Sat Budget - Hardware Sat Budget - Other Costs	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All commonent with prices should be listed in a table.  All other costs should be listed in a table. There should be a table for	1 2		Management  CanSat Budget - Hardware  CanSat Budget - Other Costs	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table. There should be a table for	2		40	2 2	
agement Sat Budget - Hardware Sat Budget - Other Costs	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table. All other costs should be listed in a table. There should be a table for overall cost of mission.	1 2		Management  CanSat Budget - Hardware	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table. There should be a table for overall cost of mission.	2		40	2 2	
agement Sat Budget - Hardware Sat Budget - Other Costs gram Schedule	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table. All other costs should be listed in a table. There should be a table for overall cost of mission.  One page Gantt chart showing	1 2	Not enough details	Management CanSat Budget - Hardware CanSat Budget - Other Costs Program Schedule	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table All other costs should be listed in a table. There should be a table for overall cost of mission.  One page Gantt chart showing only	2 0		40	2 2 2	
agement Sat Budget - Hardware Sat Budget - Other Costs gram Schedule	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be issed in a table issed in a table issed in a table. There should be itself in a table. There should be a table for overall cost of mission.  One page Gantt chart showing only major milestones	1 2	Not enough details	Management  CanSat Budget - Hardware  CanSat Budget - Other Costs	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be issed in a table of the should be a table for overall cost of mission.  One page Gantt chart showing only major milestones	1 2 0		40	2 2 2 2	
agement Sat Budget - Hardware Sat Budget - Other Costs gram Schedule	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table. All other costs should be listed in a table. There should be a table for overall cost of mission.  One page Geatt thart showing only major milestones. Table or ANOTHER Gant thart.	1 2	Not enough details	Management CanSat Budget - Hardware CanSat Budget - Other Costs Program Schedule	and numbered. There should be a column for the pages that show how they are meeting the requirement.  All component with prices should be listed in a table All other costs should be listed in a table. There should be a table for overall cost of mission.  One page Gantt chart showing only major milestones Table or ANDTHER Gantt chart.	1 2 0		4	2 2 2 2	
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