Payload Specifications and Capabilities Form

Complete this form with the values expected if you were to successfully develop your proposed payload. You will submit your responses in the online entry form. Do not fill in the PDF.

Payload Title	***Example: payload for miniaturized rovers***		
Instrument name			
Image, diagram, and/or schematic	*Insert small/low-res images/graphics, etc.*		
Team	**Name**	**Role/Expertise**	
	Jane Doe	*Principal Investigator*	
	John Smith	*Integration lead*	
Instrument Characteristics	**Dimensions (mm)**		
	Mass (g)	*Total mass of payload*	
	Power (W)	*Continuous and Peak Power*	
	Voltage (V)	*Required Voltage (6-8V)*	
	Thermal (C)	Operating range	*What is the allowable temperature range when the payload is operating?*
		Unpowered range	*What is the survivable temperature range when the payload is powered off?*
	Data rate	*See Small Lunar Payload User's Guide*	
	Processing Requirements	*Includes requirements for processing data, payload operation, and communication*	

	Bandwidth/Resolution	*Maximum instrument capability*
	Precision/Accuracy	*Maximum instrument capability*
Instrument Objectives	*What is your instrument trying to do?*	
Physical measurement conducted by instrument	*Actual measurement by instrument (ex. Fluorescence, photon absorption etc)*	
Analysis of measurement	*What on-board data processing does the instrument perform?*	
State of the art Comparison	*Compare to similar instruments or other methods of achieving the same information*	
Impact to NASA	*How will this help NASA learn more about lunar resources and the lunar surface? How will this impact NASA's mission?*	
What's the detection limit and over what period of time?	*How much time do you need for "sampling", at what resolution?*	
Ideal placement on micro-rover	*Where should it be placed? Top? Bottom? Side?*	
Ideal lunar site	*What is the best latitude for the measurements you're trying to make?*	
Ideal positioning in environment	*Is the instrument looking down? Up? Over the horizon?*	
Mechanical Stability requirements	*Does the instrument need to be stable for a period of time for the measurements?*	
Thermal requirements	*How many Watts are you dissipating, and to what temperature does your instrument need to be held, in order to make accurate measurements?*	
Mechanical requirements	*How would this payload be physically attached to the micro-rover? Bolt holes?*	
Environmental hazards	*Do you have any special operational precautions?*	