

# "Direction Space" ISS Contest Compliance Matrix

## Compliance Matrix to General Technical Requirements Specification

Project Name:				Date:		
ID	Requirement	Requirement's text	Compliance status	Comment (necessary for PC/NC)	Remarks	
REQ-01	Safety	<p>Experiments shall not generate a threat to life, health, or property throughout their entire lifecycle. In the case of autonomous experiments (without human involvement), a physical and programmatic (highest priority in control logic) safety switch must be installed.</p> <p>In particular, experiments shall not involve open flames, shall not generate emissions of dust/particles/gases into the environment, and any element that may come into contact (intentionally or unintentionally) with astronauts shall be free from sharp edges/spikes/scratches</p>				
REQ-02	Reliability	The experiment shall be designed in such a way that its failure does not propagate to the surrounding environment (fail-safe).				
REQ-03	Compactness	The experiment must be designed to fit within a volume of 100x100x100 mm (+/- 4 mm) and have a mass not exceeding 1 kg.				
REQ-04	Simplicity	The experiment will be exposed to conditions of microgravity, radiation typical of the interior of the ISS, and the stresses during rocket launch. The experiment will not be exposed to vacuum conditions, radiation in open space, or temperature variations typical of Low Earth Orbit (LEO).				
REQ-05	Scientific excellence	The experiment shall have a significant scientific justification for being conducted aboard the ISS, shall not be feasible under terrestrial conditions, or serve as a crucial reference for experiments conducted under terrestrial conditions.				
REQ-06	Materials	The experiment should not contain the following substances that pose a threat and are prohibited for use by the operator: beryllium (for structures), beryllium oxide, mercury, cadmium, lithium, magnesium, zinc, polyvinyl chloride (PVC), radioactive materials, nylon-insulated wires, and tantalum capacitors with a wet electrolyte. Additionally, the use of flammable materials shall be avoided.				
REQ-07	Reference	The experiment on the ISS must include the implementation of a reference version of the research, allowing for a comparison of results with terrestrial conditions. Reference studies must be conducted before the experiment on the ISS.				