

# NASA's Human Lander Challenge (HuLC)

## Final Deliverables Scoring Matrix



### Final Evaluation Criteria (Max 115 Points)

#### Technical Paper – 70% (70 Points)

Criteria	Excellent	Very Good	Good	Fair	Poor	Missing
<b>Technical Credibility and Feasibility:</b> <ul style="list-style-type: none"> <li>Is the proposed solution appropriate for application and operation in cislunar, lunar, and/or Martian environments?</li> <li>Is the proposed solution described with sufficient technical detail to demonstrate that it can be implemented as intended?</li> <li>How feasible is the proposed solution in addressing the needs of ECLSS in terms of technical maturity, adherence to the HuLC constraints, and potential to directly contribute to resolving HLS challenges?</li> <li>Has the team identified the technical challenges and risks associated with development, verification, and validation, and defined credible mitigation strategies?</li> <li>Has the team provided adequate technical justification and evidence supporting the selected design, configuration, system architecture, or approach with respect to technology readiness, system performance, affordability, programmatic implementation, and risk?</li> <li>Has the team included a realistic assessment of project cost and schedule, including technology maturation, system development, production, and operations?</li> </ul>	40	32	24	16	8	0
<b>Innovation:</b> <ul style="list-style-type: none"> <li>Have new or novel concepts, materials, capabilities, technologies, approaches and/or applications been demonstrated through the team's research, engineering analysis, or capability demonstrations to support the Human Landing System (HLS)?</li> <li>Is the technology approach differentiated from existing work in the open literature in its application to the Human Landing System?</li> </ul>	20	16	12	8	4	0
<b>Technical Management:</b> <ul style="list-style-type: none"> <li>Is the development and implementation plan adequate and thorough, with a path-to-adoption schedule and milestones clearly defined and reasonable?</li> <li>Did the team adhere to HuLC requirements and constraints, and where applicable, provide clear technical justification for exceeding any established limits?</li> <li>Is the proposed solution clearly written, well organized, and effectively communicated?</li> <li>Has the team presented technically supported conclusions regarding their design solution or approach?</li> </ul>	10	8	6	4	2	0

#### Presentation – 15% (15 Points)

Criteria	Excellent	Very Good	Good	Fair	Poor	Missing
<b>Presentation Quality</b> – Including clarity and structure of the presentation slides, presentation delivery, and representative of the findings and work written in the technical paper	5	4	3	2	1	0
<b>Q&amp;A Response</b> – Quality of response to questions from the judges	5	4	3	2	1	0
<b>Presentation Delivery</b> – Effectiveness of communication and delivery, and presence of integration and teamwork	5	4	3	2	1	0

#### Poster Session – 15% (15 Points)

Criteria	Excellent	Very Good	Good	Fair	Poor	Missing
<b>Aesthetics</b> – Visually compelling and appealing; creative use of color, graphics, images, and/or photos	5	4	3	2	1	0
<b>Organization and Flow</b> – Components clearly present findings and work written in the technical paper	5	4	3	2	1	0
<b>Engagement</b> – Team actively engaged judges, provided clear explanation of their work, and answered questions appropriately	5	4	3	2	1	0

#### Bonus Points (Max 10 Points)

Criteria	Excellent	Very Good	Good	Fair	Poor	Missing
<ul style="list-style-type: none"> <li>Does the solution help NASA understand, manage, or implement ECLSS systems? OR,</li> <li>At the time of the forum, has the solution demonstrated enough merit that NASA can consider exploring the concept further or consider investing in making the concept flight-ready? OR,</li> <li>Does the solution address risks in a manner that can directly contribute to resolving HLS challenges?</li> </ul>	10	8	6	4	2	0

**TOTAL POSSIBLE POINTS FOR FINAL DELIVERABLES (Including Bonus) 115**

### HuLC Assessment Criteria:

**Excellent** = Criteria is fully met with exceptional merit, as documented by numerous or significant strengths and with no major weaknesses.

**Very Good** = Criteria is met with high merit and little errors; strengths fully out-balance any weaknesses and none of those weaknesses constitute fatal flaws.

**Good** = Criteria is met with a credible response and a few errors; strengths and weaknesses essentially balance each other.

**Fair** = Criteria is only nominally met and significant errors are apparent; weaknesses outweigh any strengths.

**Poor** = Criteria is not met and /or has serious flaws; one or more weaknesses constitute fatal flaws.

**Missing** = No effort was made to meet criteria.