

SPACE DYNAMICS LABORATORY

# PAYLOAD CHALLENGE

ESRA ID NUMBER

UNIVERSITY

PAYLOAD NAME

TEAM NAME

FACULTY ADVISOR  
EMAIL, PHONE #

Objective - Challenge teams to develop payloads that accomplish relevant function(s) while providing useful learning opportunities.

**ENTRY FORM** (to be filled out by team; also fill out top portion of judging sheet)

In order to enter the SDL payload challenge, this form must be submitted no later than two weeks prior to the start of the event.



**Scientific or Technical Objective**

(1200 characters max) and must fit within the window



**Failure & Hazard Analysis**

Briefly describe possible failure modes and potential hazards. (1200 characters max)



**Components & Materials Used**

List the components and materials used ("Component" refers to purchased items, "material" refers to everything else). (1200 characters max)

EMAIL FORM TO : [PAYLOADCHALLENGE@SDL.USU.EDU](mailto:PAYLOADCHALLENGE@SDL.USU.EDU)



JUDGING FORM

(team fill out top portion only)

SPACE DYNAMICS LABORATORY  
**PAYLOAD  
CHALLENGE**

ESRA ID NUMBER

UNIVERSITY

PAYLOAD NAME

TEAM NAME

FACULTY ADVISOR  
EMAIL

IREC payload compliance: *TO BE FILLED OUT BY JUDGES*

SCORE

- 1. Weigh (8.8 lbs or 4.0 kg minimum 5% scale accuracy allowance) ■
- 2. Removable from the rocket ■
- 3. Not affect the flight of the rocket if removed and replaced with ballast ■
- 4. Totally recoverable ■
- 5. Not contain any live, vertebrate animals ■
- 6. Not contain significant quantities of lead or other hazardous materials ■
- 7. SDL Technology Relevance Award: Robotics, Artificial Intelligence, or Infrared ■

NO	YES
NO	YES
NO	YES
NO	YES
NO	YES
NO	YES
NO	YES

Total IREC deduction or bonuses

Payload Challenge Judging Criteria

Scientific or Technical Objective(s) › *Scientific or technical relevance, experimental approach, etc.*

(400 points)

---

---

---

---

---

Payload Construction and Overall Professionalism › *Includes make/buy decisions, craftsmanship, material usage, poster, handouts, reports, etc.*

(250 points)

---

---

---

---

---

Readiness / Turnkey Operation › *Will the payload interfere with launch operations? Will the payload operate after hours of launch preparation, rail time, heat, waiting for other launches, etc?*

(50 points)

---

---

---

---

---

Execution of Objective(s) › *How well did it accomplish the objective(s)?*

(300 points)

---

---

---

---

---

*Note that no report equals zero points and rocket failure results in 150 points (half credit – not known if payload would have worked or not)*

TOTAL PAYLOAD CHALLENGE SCORE ■

