SPACE DYNAMICS LABORATORY

PAYLOAD CHALLENGE

ESRA ID NUMBER	135
UNIVERSITY	University of North Dakota
PAYLOAD NAME	
TEAM NAME	Advanced Rocketry Club
FACULTY ADVISOR EMAIL, PHONE #	Tim Young, tim.young@und.edu, 701-777-4709

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)*

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)*

Components: Muon Detectors, GoPro Hero 3, 9V Batteries

Materials: Steel Plates, Square Steel Tubing, PETG (Used for muon detector mounts)

EMAIL FORM TO : PAYLOADCHALLENGE@SDL.USU.EDU

Space Dynamics™ LABORATORY
Utah State University

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(team fill out top portion only)

JUDGING FORM

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

SCORE

1.	Weigh (8.8 lbs or 4.0 kg minimum) ■		
2.	Removable from the rocket ■	NO	YES
3.	Not affect the flight of the rocket if removed and replaced with ballast ■	NO	YES
4.	Totally recoverable ■	NO	YES
5.	Not contain any live, vertebrate animals ■	NO	YES
6.	Not contain significant quantities of lead or other hazardous materials ■	NO	YES
7.	CubeSat form factor (BONUS) ■	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.* *(200 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?* *(100 points)*

Execution of Objective(s) › *How well did it accomplish the objective(s)?* *(300 points)*

***Note** that rocket failure results in 150 points (half credit – not known if payload would have worked or not)*

TOTAL PAYLOAD CHALLENGE SCORE 0

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