5th Annual Robotics Challenge

April 2, 2011
Great Sand Dunes National Park

http://spacegrant.colorado.edu/robotics

Can you develop a small, autonomous robot capable of navigating some of the Great Sand Dunes most challenging terrain? Then come to the Robotics Challenge!

Open to students and the general public
No entry fee for the Robotics Challenge

For rules and more information see:
http://spacegrant.colorado.edu/robotics

Or email:
Randy Emmonds: rwemmonds@adams.edu or
Brian Sanders: brian.sanders@colorado.edu

Team Registration Deadline: Friday, Dec. 3 2010!

Part of the Colorado Space Grant Consortium Experience
RockOn! BUILD, INTEGRATE AND FLY A ROCKET PAYLOAD IN 5 DAYS!

RockOn is the next step in complexity for hands-on how-to workshops developed by Colorado Space Grant Consortium. The workshop kicks off with team building activities and a general overview. Over the next three days, teams of three build rocket payloads to measure: temperature, pressure, counts of radiation, and accelerations in three axes. In addition to building all of the hardware, participants write the software to control their payload and are an active part of rocket integration. On the fifth day, participants watch their payloads soar into space on a Terrier Improved Orion rocket.

RockOn 2011:

- June 18th – 23rd
- Wallops Flight Facility, Virginia
- http://spacegrant.colorado.edu/rockon/

Colorado and Virginia Space Grant Consortia
RockSat-C

The Next Step In Low-Cost Student Access to Space

What RockSat Is: RockSat is a program for students to design a rocket payload and fly on a sounding rocket launched out of Wallops Flight Facility. Students initially submit an Intent to Fly form, and then go through a full selection process by presenting design reviews to the RockSat Project Manager. Teams that are selected for flight will then build and test their payloads, and finally travel to Virginia for integration and launch in June.

What You Get:

1 RockSat Payload Canister

Mission Management and Support

➢ Integration the Week of Launch
➢ Environmental Testing
➢ Payload Manager / Liaison

Competitive Selection Process

Flight On A Terrier-Improved Orion

➢ Apogee ~ 73 miles!
➢ Launch in June 2011
➢ 13 lbs for a payload
➢ Port access
    ➢ Atmospheric
    ➢ Optical (below)

Cost

<table>
<thead>
<tr>
<th>RockSat 2011 Costs</th>
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<tbody>
<tr>
<td>Full Canister</td>
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<tr>
<td>1/2 Canister</td>
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<tr>
<td>1/3 Canister</td>
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Contact Information

PROJECT MANAGER: Emily Logan
EMAIL: rocksatprogram@gmail.com
WEBSITE: www.spacegrant.colorado.edu/rocksatc

RockSat 2011: Intent to Fly Forms Due September 6th

Colorado Space Grant Consortium
Pushing The RockSat Concept To New EXtremes

Overview

RockSat-X Deck and Standard Interface

Each RockSat-X Deck Gets

- Flight On A Terrier-Improved Orion
- 30 lbs Payload + Deck and PT Interface
- 28 V with 1 Ah Provided by Wallops
  - 3 Non-Redundant Events
  - 1 Redundant Event
- Access to Space Environment
- Real Time Telemetry
  - Ten 16 bit 0-5V A/D Lines
  - One Parallel Line
  - One Asynchronous Line
- GPS Data of Flight
- Standard Mounting Plate
- Environmental Testing Prior to Flight
- ~ 100 Mile Apogee

Mission Management and Support

- Integration The Week of Launch
- Environmental Testing Prior To Launch
- Payload Manager/Liaison
- Guidance In Design Process

Competitive Selection Process

- Notice Of Intent
- CDR/DR
- CoDR/MIC
- Final Down Select
- PDR/RDM
- Interim Reviews

Cost

RockSat-X 2011 Costs

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<tr>
<td>Full-X</td>
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PM: Shawn Carroll
rocksatx@gmail.com

RockSat-X 2011: Notice of Intent Due September 10th