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California Space Authority
Contact: Eric A. Daniels
916-551-1543

eric.daniels@californiaspaceauthority.org



NASA PRIZE ELUSIVE AS MOON EXCAVATORS STRUGGLE IN SANDBOX

SAN LUIS OBISPO, CA (August 2, 2008) - Eight teams competing in the 2008 Regolith Excavation Challenge came up short in winning the NASA purse of \$750,000, but more determined to compete in a rematch for 2009. The regolith event, co-hosted by the California Space Education Workforce Institute (CSEWI), California Space Authority (CSA), and California Polytechnic University in San Luis Obispo required teams of U.S. citizenship to build autonomous lunar excavators capable of digging 150 kg of simulant, place it in a collector, within 30 minutes.

Twenty-five teams registered for the challenge. Sixteen teams traveled to San Luis Obispo to compete with half that number withdrawing due to last-minute mechanical and logistical problems. The final teams to compete were:

- Waldbaum, Sunnyvale, CA
- Next Step, Houston, TX
- Tech Ranch, Arroyo Grande, CA
- LuneOreDiggers, Denver, CO
- Cal Poly Slobotics, San Luis Obispo, CA
- Team of One, Detroit, MI
- Toy Garden, Friday Harbor, WA
- Boppers, Huntington Beach, CA

“By afternoon, it had become apparent that the moon excavators were struggling,” says Wil Simon, CSA/CSEWI Regolith Media Advisor. “The teams from last year’s competition had shown they could overcome the challenge of the lunar simulant soil, but this year was different and based more on building an effective autonomous unit.”

“Overcoming the new rules requiring an autonomous system that could navigate on the soil was the big challenge in 2008,” observed Chris Welch, team member with Colorado’s LunOreDiggers. “Autonomous navigation, building a roving excavator is a very time-straining effort.”

California Space Authority is a nonprofit organization supporting California’s commercial, civil and national security space stakeholders. Governed by a statewide board of directors, CSA works closely with the State of California, industry, other government, education, workforce entities and academia to support space enterprise development and expansion statewide.



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“Everyone got stuck in the corner [of the sandbox]” observed Welch’s team associate, Ryan Dubisher. “We knew it would be tough, and it should be. If they do it next year, I’d come back to compete.”

Cal Poly/Slobotics Team Leader Kyle Wiens was expecting their lunar digger to have more traction in the sand. Wiens praised his team and machines novel “whisker-based navigation” to help the rover move around the sandbox.

Many teams struggled to get their lunar excavators to simply dig. “The competition represented a systems engineering challenge” explains NASA’s Andy Petro, Manager, Centennial Challenges. “Every aspect of the system has to work together, and the Regolith Challenge allows us to discover problems we did not expect. We learn by trying, and failure represents an opportunity for new learning... and we learned a lot.”

“The big success today is that we are bringing together the NASA community of scientists and engineers with the inventor community represented by the competitors here,” says CSA Executive Director Andrea Seastrand. “Even though we don’t have a prize winner there are many technologies developed that will be an interest to the space exploration community.”

For pictures taken at the event, go to:

<http://www.californiaspaceauthority.org/html/press-releasesandletters/pr080802-2.html>

<http://www.californiaspaceauthority.org/html/press-releasesandletters/pr080802-1.html>

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