"We dig Moon Dirt for Fun™" exclaims ACME Robotics



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ACME Robotics

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Industry: <u>Aerospace</u>

Press Release Summary: ACME Robotics, a small midwestern robotics company, officially announces their intent to enter the Summer 2008 Regolith Excavation Challenge, one of the NASA Centennial challenges, using COTS technology.

Press Release Body: Eldora, Iowa – December 10, 2007 – We dig Moon Dirt for Fun[™] is the slogan and \$500,000 is the prize as ACME Robotics officially announces their intent to enter the 2008 Regolith Excavation Challenge, one of NASA's Centennial challenges with a total purse of \$750,000 up for grabs.

"Efficiency of motion and redundancy are the keys to success" states **Don C. Dhabolt, Team Leader for ACME Robotics**. "Every piece of equipment on the **ACME Excavator** utilizes COTS (commercial off the shelf) technology, making it extremely cost effective to build."

The biggest obstacle to overcome will be the dust, Don believes. During the **Apollo program**, even the seals on sample containers used to bring regolith back from the moon were compromised by the dust; it's so fine, it simply goes everywhere. Imagine what it will do to the moving parts of a robotic excavator. A simulated lunar regolith will be used for the 2008 challenge.

The first event was held in May of 2007 and competition was fierce between the four participating teams. However, **Mr. Dhabolt** wasn't there, "*I entered the competition. My prototype was nearly complete, but I had to drop out early.*" Lack of funding and sponsorship were the main reasons for the early withdrawal, he said. The event highlighted quite an array of designs, but each machine was strictly a "**stand and dig**" machine – all were autonomous but none had locomotion. **ACME Robotics** read between the lines and designed a mobile, autonomous excavator. "*I guess we have a head start for the 2008 competition,*" Mr. Dhabolt said.

Don admits, the 2008 challenge will be extremely difficult – the rules have changed. Building an autonomous excavator to move 150kg of simulated moon dirt within a 30 minute time limit will not be easy, but Mr. Dhabolt is excited. When asked about the **ACME Excavator** design, he smiles and says "*Why re-invent the wheel? I've simply utilized existing technologies and combined them in a unique package. We'll just have to wait and see what happens next summer."* Indeed we will.

The **California Space Education and Workforce Institute** (CSEWI) will administer the 2008 Regolith Excavation Challenge, which is also **Co-Hosted by the California Space Authority (CSA)**. The event will be held sometime during the summer of 2008, exact date to be determined.

Don C. Dhabolt is the Team Leader of ACME Robotics, and the Director of Operations for IT RealityString LLC, a small Information Technology Consulting firm located in Eldora, Iowa and La Crosse, Wisconsin.

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