New Award

AIAA Telemetry/Electronics Award

$500 for 1st place, certificates for 2nd and 3rd place in both university and high school categories.

For developing/operating the most innovative and most useful real-time telemetry system at the NASA Great Moonbuggy Race.

The telemetry package can be designed and constructed by an institution which did not construct the moonbuggy vehicle. Permission to integrate the telemetry package must be permitted and coordinated by the moonbuggy vehicle team.

The telemetry system must do one or both of the following:

- Transmit real-time video
  - Video must be broadcast and received by a central station and available for viewing in real-time.
- Transmit real-time sensor data
  - Sensors can include, but are not limited to, the following:
    Stress, position, torque, accelerometers, magnetometers, impact sensors
  - Sensor data must be broadcast and received by a central station and raw data must be available for viewing in real time.
  - A baseline must be established for senor data prior to the race to qualify. (Explain how this will be accomplished.)
- Option:
  - Teams may use on-board data logging (recording) in addition to the required real-time transmissions. Extra points toward the award will be given for video or sensor data captured (data logged) during the race.

Systems that fail during operation on the course still qualify for the award.
The power system (batteries) can take the place of the simulated batteries.
A functioning antenna (for the telemetry system) can take the place of the simulated high gain antenna.

The telemetry award competition requires a written presentation (1 to 5 pages) by the team to the judges.

Criteria for Judging:
Design, weight, function of system, redundancy (or why not), performance, innovation, usefulness to crew (50% of the score based on performance of the system during one of the race attempts).

<u>Registration</u>
Teams must register for the Telemetry/Electronics Award in the Registration tent at the Space and Rocket Center in Huntsville. At that time, each team must turn in the written presentation, including the telemetry system's frequency of transmission.