**AIAA TELEMETRY/ELECTRONICS AWARD**

$250 cash award and trophy open to both college/university and high school categories

For developing/operating the most innovative and most useful real-time telemetry system at the NASA Rover Challenge

The telemetry package may be designed and constructed by an institution that did not construct the rover. Permission to integrate the telemetry package must be given and coordinated by the roving vehicle team. Documentation of this permission must be included in the written presentation that will be submitted at the time of registration.

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 sensor 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 of one to five 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 percent of the score based on performance of the system during one of the race attempts).

**Registration:**
Teams must register for the Telemetry/Electronics Award in the Registration tent at the U.S. Space & Rocket Center in Huntsville. At that time, each team must turn in the written presentation, including the telemetry system's frequency of transmission.