

Some Challenges are Grander than Others



The challenge:

The world's most grueling driverless desert race...

The challengers:

Carnegie Mellon University's Red Team...

The stakes:

Two million dollars and the future of mobile robotics...

The strategy:

Visualize success with SGI

On Your Mark

The Defense Advanced Research Projects Agency (DARPA) has once again issued a challenge to the nation's best and brightest innovators: develop an autonomous ground vehicle capable of traversing up to 175 miles of treacherous desert terrain in less than 10 hours. Get there first and your team takes home \$2 million dollars and a place in robotics history. Here's the tricky part: no remote control allowed. That means vehicles must navigate the challenging desert terrain completely by computing. And to make things even more interesting, the exact course will not be revealed until two hours before the race begins.

Get Set

So how do you prepare to win the 2005 DARPA Grand Challenge? Clearly, the ability to quickly, effectively and accurately plan the best route will be a strategic advantage on race day. That's why

Carnegie Mellon University's famed Red Team has asked SGI, the leader in visualization, compute and storage technologies, to help them achieve this edge. A four-processor Silicon Graphics Prism™ power configuration and a two-processor Silicon Graphics Prism™ deskside configuration, each with two graphics pipes, will provide the Red Team with all of the computing muscle and visualization capabilities needed to enable route planning. In addition, SGI is providing a 10TB SGI® InfiniteStorage TP9500 storage array upon which millions of points of terrain and satellite data will be preloaded and stored. The Red Team will rely on this powerful technology for pre-race testing as well as to process the satellite data for mapping the final race route. Global Position System (GPS) technology and on-board sensors will be employed to navigate the best path and overcome obstacles along the way.

Go

Regardless of what kind of challenge you face, it pays to remember that when the going gets tough, the tough get informed. You'll find up-to-the minute information about the 2005 DARPA Grand Challenge and the Red Team's progress at www.darpa.mil/grandchallenge. For the latest word on research and trends in visualization and storage be sure to visit the SGI Visualization Resource Center at <http://www.sgi.com/vizrc>. This site contains a wealth of complimentary resources including insights from industry luminaries, whitepapers by leading industry analysts and articles exploring new and emerging technologies and trends.

Of course as a leading provider of high performance visualization, compute and storage technologies, SGI is always standing by to talk about your organizations needs. Call us at 1-800-800-7441.

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