



Rod Millen Special Vehicles Successfully Supports Design and Demonstration of Unmanned Ground Combat Vehicle

Rod Millen Special Vehicles, along with Lockheed Martin, has designed, built and demonstrated an advanced military ground vehicle envisioned for battlefield reconnaissance.

([PRWEB](#)) April 11, 2003 -- Huntington Beach, CA -- March 28, 2003 -- Rod Millen Special Vehicles (RMSV), in partnership with Lockheed Martin, has successfully designed and demonstrated a new, highly-mobile vehicle called the Unmanned Ground Combat Vehicle (UGCV) that is envisioned for the U.S. military for scouting and relaying intelligence. The demonstration took place at Sandia National Laboratories near Albuquerque, NM, earlier this year.

Through a Defense Advanced Research Projects Agency (DARPA) contract issued to Lockheed Martin in 2002, RMSV is responsible for vehicle design integration, mobility analysis, suspension design and construction, chassis design and construction, vehicle suspension control electronics and overall vehicle assembly. The UGCV is designed to navigate over large natural, urban and battlefield obstacles, sustain itself with hybrid electric power for long periods, and continue to operate after accidental roll-over.

"The specialized research, experience, and skills of our company blend perfectly with the needs of this project. Pushing the limits of performance, technology and ourselves -- that's what we are all about," said Rod Millen, founder and president of RMSV.

The design and construction of the vehicle draw on advanced aerospace and racing technology. The carbon fiber and Kevlar composite chassis provides a robust, lightweight housing for vehicle systems and payload. A suspension system of six independent 360° rotating arms enables the vehicle to climb over obstacles greater than 150% of the tire diameter, as well as perform other mobility feats not possible with conventional vehicles. The suspension is electronically controlled using RMSV-developed software, which allows the vehicle to adapt to changing terrain and other conditions at a high rate.

The vehicle is intended primarily as a Reconnaissance, Surveillance, and Targeting (RST) platform carrying a telescopic mast and sensor head as a payload. Multiple UGCVs could be controlled by a single remote operator, allowing him to oversee multiple missions while keeping out of harm's way. Eventually intended for autonomous operation, the UGCV could also assist soldiers in the field by serving as a mule to transport supplies through rough terrain.

Experimentation of the UGCV RST vehicle started in January 2003 at Sandia National Laboratories near Albuquerque, NM. "We are excited to see this project come to fruition," said David Clemens, Senior Engineer and UGCV Project Manager at Rod Millen Special Vehicles. "The nature of the DARPA initiative and this project in particular gave us the opportunity to consider all the possibilities of an unmanned vehicle -- if we could imagine it, we could design and build it."

Demonstrating maximum performance is nothing new for the folks at RMSV. Rod Millen himself has a very successful background as a professional race driver with extensive rally, off-road and hill climb experience. Rod holds the world record for the Pikes Peak hill climb, which he captured, in an unlimited class Toyota Celica designed and built by RMSV. The group's portfolio extends to prototype and show vehicles such as the Retro Cruiser developed for Toyota Motor Sales, and professional race vehicles like the Pikes Peak



Tacoma Truck, and the Championship Off-Road Racing (CORR) Toyota Tundra Truck. These vehicles were all designed and fabricated at Rod Millen Special Vehicles. Past projects for the U.S. Marine Corps and Special Operations Forces include the HTMMP (Helo-Transportable Multi-Mission Platform), JTEV (Joint Tactical Electric Vehicle), and the HTTPV (Helo-Transportable Tactical Vehicle)- all high mobility technology demonstrators designed to be transportable by helicopter.

The Rod Millen Group is a diverse engineering, prototyping and product development company with expertise in electromechanical systems primarily in the ground vehicle and entertainment industries. With an in-house engineering team consisting of members with extremely diverse backgrounds and showing high attention to detail, RMSV has the capability to mature a project from a clean sheet of paper to small quantity production, or any step in between, while meeting tight schedules and challenging design requirements.

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