



REMOTE MOBILE SURVEILLANCE VEHICLE



DESCRIPTION

Custom Manufacturing & Engineering™ (CME™) has developed a lowcost, lightweight, hybrid-electric unmanned ground vehicle (UGV) workhorse that can host a wide variety of payloads to meet a wide range of military, law enforcement, or homeland security missions. Hybrid-electric operation means that 5 to 10 kW of electrical power is available for propulsion, for payload power, or for both. Large battery packs can provide extended periods of “stealth mode” or silent operation while providing day/night surveillance, radar, communications links, IED detection, ordinance detection and disposal, re-supply, perimeter patrol, almost anything imaginable, all without risk to personnel. On-board diesel power generation means it doesn’t have to be towed back once the batteries are depleted. Just start the diesel engine and charge them.

Most UGVs are either very small and limited in capability and range, or they are very large, heavy, and expensive. Their performance, size, and cost parameters limit their availability and usefulness.

CME’s unmanned utility vehicle has over a 100-mile range, with all-wheel drive to support sensor or utility missions in a low-cost package that is simple to operate. The robotic controls are compliant with the JAUS standard, making it easy to modify and maintain. Options include GPS waypoint navigation with semi-autonomous control software that leverages technology developed for the DARPA challenge.

APPLICATIONS

- Missions best served by affordable UGV
- Remote pathfinder and scout
- Remote patrol road, perimeter, or border monitoring
- Passive or active sensor host platform
 - Day/night vision
 - Tactical radar
 - Ground penetrating radar
 - Counter-sniper
- Small UGV marsupial
- Battery Charging

KEY FEATURES & BENEFITS

- Low-cost unmanned utility vehicle for semi-autonomous missions
- Effective sensor host Transport sensors, supplies, or ammunition
- Efficient, hybrid-electric, ruggedized, tele-operated, all-terrain vehicle provides up to 10 kW of clean electric power for a wide range of mission payloads
- Over a 100-mile vehicle range with 7 gallons diesel
- Silent “stealth mode” operation covers up to 30 miles in two hours on-the-move
- 350 to 500 pound payload capacity
- Operates silently for weeks at-the-halt with a 20 watt day/night video camera payload
- On-board diesel generator can auto-start to charge batteries when necessary, or auto-start may be disabled for tactical stealth operation
- Tele-operation — on board pan/tilt/zoom camera for remote operation over secure link
- Remote operator console with laptop video display (1 mile range)
- Fast — up to 30 mph with digitally controlled, on-demand, all-wheel drive
- Remote control range of over 1 mile line of sight with current configuration
- Power management controls vehicle power demand
- Vehicle telemetry display reports voltages, fuel level, current, temperatures, status



SPECIFICATIONS

Width: 59 inches
Length: 124 inches (bumper to bumper)
Weight: 2789 pounds (with payload),
approx. 2595 pounds (without payload)

- 48 volt DC, 240 Amp-hour lead-acid battery pack or an optional 48 volt DC, 240 Amp-hour lithium-ion battery pack allows 350 lb greater payload for 500 lb of mission payload
- Up to six hours power generation at full load with standard fuel capacity