

MESA

Autonomous. Persistent.
Mission-Ready Ground Vehicle



Forterra's MESA is a next-generation autonomous ground system engineered to deliver scalable, distributed capability, reducing risk to Soldiers while accelerating operational tempo and mission effectiveness.

MESA is built on a modified Polaris Ranger platform, custom-produced to meet the demands of autonomous military operations. This purpose-built vehicle combines the proven durability of a trusted utility chassis with Forterra-driven enhancements for unmanned performance, modular payload integration, and sustained operation in complex, off-road environments.

At its core, MESA is powered by Forterra's AutoDrive autonomy stack, delivering advanced perception, navigation, and mission execution in both GPS-enabled and denied conditions. It is seamlessly integrated with the Vector communications suite, enabling resilient, adaptive connectivity in contested environments. Together, these mission modules transform a rugged vehicle into a fully autonomous, networked system, capable of operating independently or as part of a coordinated, multi-vehicle formation.

MISSION-READY VERSATILITY

MESA is engineered to support a wide range of mission profiles, delivering adaptable capability across dynamic operational environments. From logistics resupply and route clearance to reconnaissance, security, and force protection, MESA extends operational reach while reducing risk to personnel. Its autonomous performance, resilient communications, and modular payload architecture enable rapid reconfiguration—ensuring mission readiness across evolving requirements and multi-domain operations.

PERFORMANCE THAT MATTERS

- >350 km range without refueling
- 907 kg payload capacity (4.5x requirement benchmark)

READY NOW, SCALABLE FAST

- TRL 7 system built on a predecessor (TRL 9 Lancer)



RUGGED PLATFORM

- Heavy-duty steel chassis, 4WD, 15" ground clearance
- 110 hp engine with 30 mph top speed
- Designed for extreme terrain and sustained operations



AUTONOMY: AUTODRIVE®

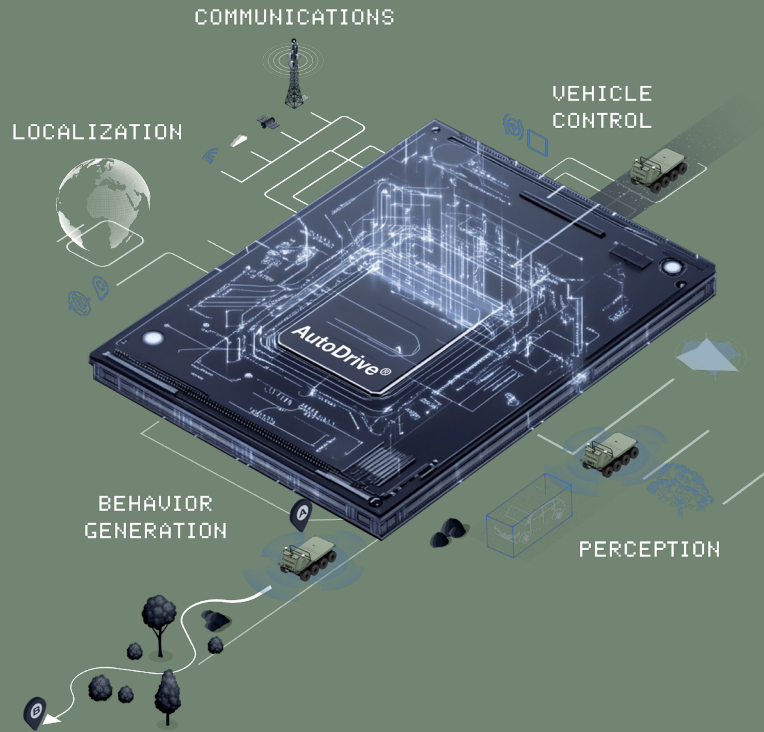
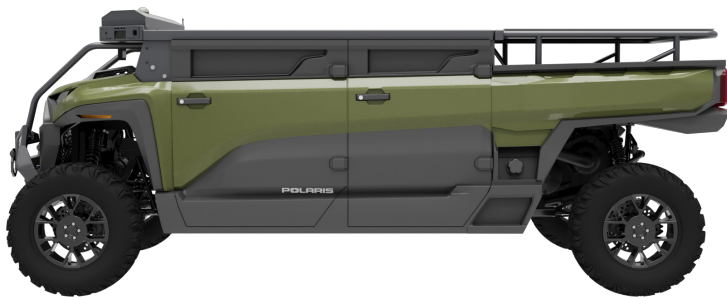


Advanced, field-proven autonomy enables MESA to perceive, navigate, and execute missions in complex, off-road environments—operating seamlessly in both GPS-enabled and denied conditions. Designed for real-world deployment, AutoDrive® delivers reliable, repeatable performance with minimal operator input.

COMMUNICATIONS: VECTOR™



Vector™ provides resilient, adaptive connectivity across contested and disconnected environments. Engineered for secure, high-bandwidth data flow, it enables real-time command, control, and coordination—whether operating independently or as part of a distributed fleet.



ONBOARD COMPUTE

Ruggedized, high-performance onboard compute powers real-time decision-making at the edge. Designed to support autonomy, sensor fusion, and mission applications simultaneously, it ensures consistent performance in degraded, bandwidth-constrained environments.

PAYLOAD INTEGRATION

MESA is built for modularity, supporting rapid integration of sensors, mission systems, and specialized payloads. With a flexible architecture, it adapts to evolving mission needs—extending capability across reconnaissance, logistics, force protection, and beyond.

ABOUT FORTERRA

Forterra builds autonomous mission systems for defense, integrating scalable hardware and software platforms that enable forces to deploy autonomy as a force multiplier across the battlespace. Forterra's modular systems deliver end-to-end autonomous mobility, sensing, edge compute, data brokering, and comms for complex environments. Forterra is a go-to provider of autonomous solutions for the U.S. Department of War, which harnesses autonomy for asymmetric warfare in critical conditions.