an unmanned robotic vehicle, moving across the mud, through the dark, in unfamiliar, hostile terrain

GLADIATOR

- Day and night scouting/RSTA
- Patrol urban environments
- Cordon and search operations
- Checkpoint operations
- Direct fire support
- Transport equipment and supplies

ENGINEERING THE FUTURE OF ROBOTICS

NATIONAL ROBOTICS NREC ENGINEERING CENTER
A rugged, lightweight, tactical unmanned vehicle designed to support small expeditionary units

GLADIATOR

- Durable, highly mobile 4x4 mobile base unit with turbo diesel engine, armored hull, and run-flat tires
- On-board color/IR cameras, microwave proximity detector, GPS, and wireless data link
- Intuitive OCU with monocular screen and hand-held controller
- Versatile mounting system for M240 and M249 machine guns, M32 grenade launcher, and Light Vehicle Obscuration Smoke System (LVOSS)
- 400 lb capacity payload module
- Open hardware and JAUS-compliant, modular software allow quick mission reconfiguration

Gladiator Mobile Base Unit (MBU)

<table>
<thead>
<tr>
<th>Engine (turbo diesel)</th>
<th>32 hp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top speed: Level terrain</td>
<td>17 kph</td>
</tr>
<tr>
<td>60% grade</td>
<td>5 kph</td>
</tr>
<tr>
<td>Tactical (wet &amp; armed) fighting weight</td>
<td>&lt; 2500 lbs</td>
</tr>
<tr>
<td>Dimensions (LxWxH)</td>
<td>78x50x60 inches</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>-4º to 125º F</td>
</tr>
<tr>
<td>Battery</td>
<td>24 Volt DC</td>
</tr>
<tr>
<td>Remote-release hitch</td>
<td>750 lbs towing capacity</td>
</tr>
</tbody>
</table>

Gladiator Mobile Base Unit (MBU) Operational Features

- Survives rollover
- Armored hull
- Fords streams up to 24 inches deep
- Retrotraverse: Automatic communications/loss recovery
- Waypoint navigation
- Front and rear driving cameras
- Easily transported via HMMWV

Operator Control Unit (OCU)

- Rugged head-mounted display
- Ergonomic, game controller-style hand controller
- Powerful, lightweight, tamper-proof CPU
- 4-hour battery pack
- Built-in omni-directional antenna
- Remote data terminal functions as spare OCU
- Map overlay, targeting and engaging software
- Digital video recording capability

Reconnaissance, Surveillance and Target Acquisition (RSTA)

- Laser rangefinder
- Thermal camera
- Day camera

Tactical Weapons Mount

- M240 and M249 machine guns
- LVOSS: M6 or M7