Grenade Launcher System
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The Moog Grenade Launcher System (GLS) is an electromechanically controlled, dual-axis drive mechanism for positioning two grenade discharge racks at four discrete elevation angles, corresponding to desired firing ranges. Each discharge rack contains six grenades and allows the operator to individually deploy a combination of smoke and/or non-lethal blunt trauma and distraction grenades at distances up to 100 meters. The motor controller and discharge rack drive sub-assemblies are mounted to the existing Remote Weapon Station (RWS) structure. Although the sub-assemblies are common, each side interfaces to the vehicle with unique left or right adapter brackets. The launcher assembly is designed to be modular and adaptable to facilitate a variety of platforms.

The GLS operator interface includes a Fire Control Panel (FCP) located inside the vehicle that connects with the RWS via Ethernet. The FCP provides launcher and grenade status for both discharge racks. Power and communication to/from the internal FCP and external motor controller/launch electronics are via circuits in the existing RWS slip-ring. The FCP communicates the elevation command via CAN bus to the MC 100D motor controller which provides position loop closure for each of the discharge rack drive motors.
LAUNCHER BLOCK DIAGRAM

**DIGITAL DUAL-AXIS CONTROLLER:**
Brushless motor controller to provide torque, velocity and position loop closure. Accepts commands from any fire control system, in either digital or analog format, and interfaces with control handle.

**FIRE CONTROL PANEL (FCP):**
Provides operator interface for selecting discharge rack, aiming and fire control.

**DISCHARGE RACKS:**
Each discharge rack contains six barrels for use with multi-purpose 66mm ammunition.

**ENCODERS:**
Provides high resolution repeatable position sensing.

**GYROS:**
Provides high precision stabilized accuracy and control.

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### Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Elevation Stroke Range</td>
<td>0 – 82˚</td>
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<tr>
<td>Elevation Velocity</td>
<td>45˚/sec</td>
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<tr>
<td>Stabilization Accuracy</td>
<td>±1˚, vehicle disturbance inputs</td>
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<tr>
<td>Weight</td>
<td>195 lb total</td>
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LOCATIONS

Argentina
Australia
Austria
Brazil
Canada
China
Finland
France
Germany
India
Ireland
Italy
Japan
Luxembourg
Netherlands
Norway
Philippines
Russia
Singapore
South Africa
South Korea
Spain
Sweden
Switzerland
United Arab Emirates
United Kingdom
United States