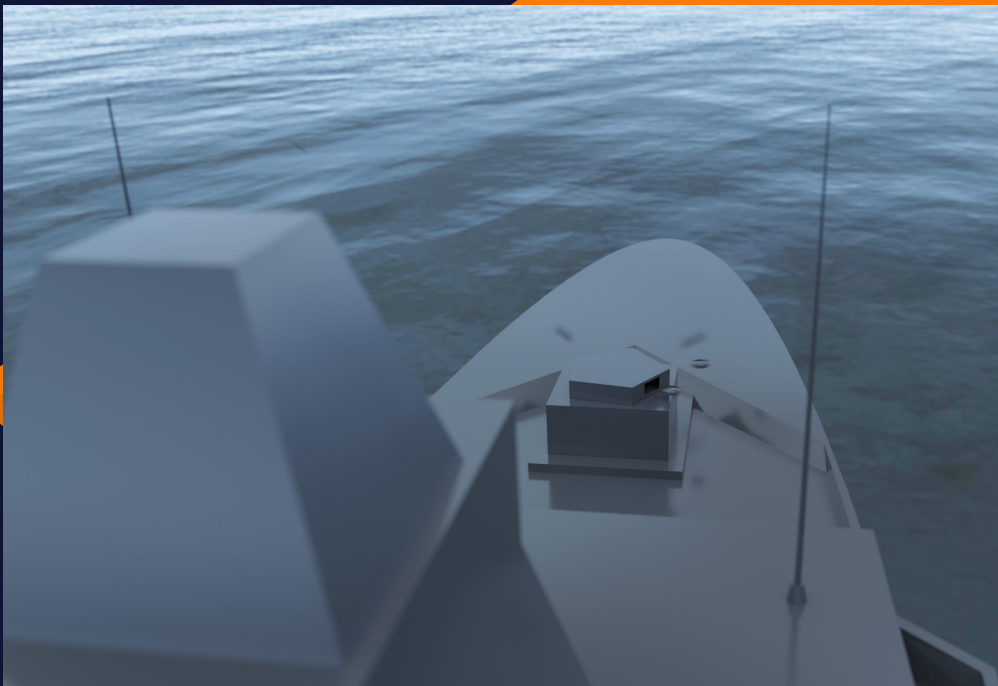




BACKGROUND

There is a requirement for high speed, rapid fire projectile weaponry to counter the threat posed by conventional and hypersonic weapon systems to troops and assets. The best economic efficiency can be achieved if these systems are able to impart the necessary kinetic energy to their payloads at the point of launch (a conventional gun) rather than in flight (a missile). This reduces the cost and size of the projectile. Existing Electro-Magnetic Rail Gun (EMRG) systems have plateaued and can not meet operational requirements. Ripl's next-gen design overcomes existing EMRG system technology limitations and delivers improved performance, platform integration, durability, and effect.



The Mass Accelerator installed on a frigate providing Hypersonic ASM defence

ATTRIBUTES

- Extended range - 250 miles (estimate)
- High rate of fire - 200 rounds p/m (low estimate)
- Highly accurate with high radius of damage
- Small form for wider platform integration
- Minimal barrel friction - Extended system durability
- Slow power draw (no spike) - smaller power source required
- Low cost & low risk munitions
- Multiple projectile trajectories achievable, including non-direct
- CIWS application - supersonic shrapnel

APPROACH

- **A novel** and simple alternative to the 900-year-old approach to firing projectiles
- **Multiple discs** or spherical projectiles are accelerated simultaneously within a cylindrical body to hypersonic velocity using slow-draw electro-magnetics
- **Delivers characteristics** of an extended barrel (muzzle velocity and accuracy) without the need for a physically extended barrel
- **Hypersonic projectile** velocity achieved with less power, less footprint, improved system durability, and with greater effect on target

NEED

- **Next-gen effector** systems to counter existing and emerging threats, including hypersonic ASM
- **Improved range**, accuracy, and radius of damage
- **Rapid technology** insertion
- **Highly affordable** through-life costs
- **Cross-service** military deployability
- **Urgent requirement** for improved defensive capability (eg: Fleet protection)

Additional use:

Accelerator for Inertial/Impact Nuclear Fusion process