

DRDO tests laser weapon system that can disable missiles and drones

Location & Test Environment

- Test conducted at **National Open Air Range, Kurnool, Andhra Pradesh**, a dedicated testing facility for advanced defence systems.
- Demonstration in real-world conditions boosts **combat readiness** of the technology

Basic Facts

- **Organisation:** Defence Research and Development Organisation (DRDO)
- **Weapon System:** Mk-II(A) Laser-Directed Energy Weapon (DEW)
- **Trial Dates:** 13.4.25
- **Outcome:** Cutting Target



Technological Milestone

- It demonstrates India's entry into the **elite club of nations possessing high-power laser weapon technology**.
- Part of India's push for **indigenous, futuristic, and asymmetric warfare capabilities**.

Capabilities of the DEW Mk-II(A)

- **High-energy laser system designed to engage and destroy aerial targets**, such as:
 - Fixed-wing drones
 - Incoming missiles

- Surveillance equipment (**sensors, antennae**)
- Exhibits **full-spectrum capability**, including:
 - Multiple drone attack interception
 - Precision destruction at long range
 - **Lethal response** within seconds of target detection

Key Features

- **Lightning-speed engagement** due to laser traveling at speed of light.
- Targets are identified via:
 - Radar detection
 - Electro-Optic (EO) system
- Laser beam causes **structural failure** or destroys **sensitive components**, including warheads.

Cost Efficiency

- Operating cost is **extremely low** — equivalent to the price of a **few litres of petrol**.
- Offers a cost-effective, low-maintenance alternative to conventional ammunition-based defence.

Strategic Significance

- Strengthens India's **counter-drone** and **air defence** architecture amid rising drone threats.
- Helps in **reducing dependence** on kinetic weapons and foreign arms imports.
- Can be deployed in **border areas, naval ships, and for critical infrastructure protection**.

Broader Implications

- Enhances India's reputation as a **technology leader** in defence innovation.
- Promotes **Make in India** and **Atmanirbhar Bharat** initiatives in high-end defence R&D.
- Could revolutionize **rules of engagement** in future warfare by reducing **collateral damage** and **ammunition logistics**.