



DRDO's Ultra Swachh

Why in News

The **Defence Research and Development Organisation (DRDO)** has developed a **disinfection unit named Ultra Swachh** to disinfect a wide range of materials, including Personal Protective Equipment (PPEs), electronics items, fabrics, etc.

Key Points

- The system uses an advanced oxidative process (ozonation).
 - **Ozonation** is a type of advanced oxidation process, involving the production of very reactive oxygen species able to attack a wide range of organic compounds and all microorganisms.
 - Ozone is more effective than chlorine in destroying viruses and bacteria.
- The system is double layered with specialised Ozone sealant technology assuring trapping of ozone for the necessary disinfection cycle.
- It also has a catalytic converter to ensure environment friendly exhaust i.e only oxygen and water.
 - A **catalytic converter** is a device used in exhaust systems to reduce emissions.
- The Ultra Swachh comes in two variants namely Ozonated Space and Trinetra Technology. Trinetra technology is the combination of Ozonated space and radical dispenser.

Defence Research and Development Organisation

- DRDO was established in 1958 after combining the Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).
- DRDO works under the administrative control of the Ministry of Defence, Government of India.
- It is working to establish a world class science and technology base for India and provides our Defence Services decisive edge by equipping them with internationally competitive systems and solutions.

[Source:PIB](#)