

# Vajra Kavach disinfection system

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**In news-** A disinfection system, called Vajra Kavach, is developed by **Mumbai-based startup Indra Water.**

## **About the system-**

- It **removes any possible traces of the disease-causing SARS-Cov-2 virus** from Personal Protective Equipment (PPE), N95 masks, coats, gloves and gowns.
- It enables **reuse of PPEs and other materials** used by healthcare workers.
- It helps to **reduce biomedical waste generation.**
- The **disinfection is done in just a few minutes.**
- The system is able to **achieve a 1,00,000-fold reduction in the number of microorganisms.**
- In scientific terms, tests showed **5 log (99.999%)** reduction of viruses and bacteria.
- It was **tested with Escherichia virus MS2** (a single-stranded RNA virus and surrogate of human respiratory viruses such as influenza virus and coronavirus) and **E.coli strain C3000.**
- **'Log reduction'** is a term used to *signify the relative number of living microbes that are eliminated after a process such as disinfection.*
- The validation and testing of the system was done by the Department of Biosciences & Bioengineering at IIT Bombay.
- Indra Water was set up with the Department of Science & Technology (DST)'s **NIDHI-PRAYAS grant** (through Society for Innovation and Entrepreneurship, IIT Bombay) for coming up with innovations in the water sector.
- Indra Water is one among the 51 startups which were funded and supported under **Centre for Augmenting WAR**

**with COVID-19 Health Crisis (CAWACH)**, an initiative by National Science & Technology Entrepreneurship Development Board (NSTEDB), DST.

### **About NIDHI-PRAYAS-**

- An early stage **prototype/ proof of concept (PoC)** fund is needed to be effectively able to convert technology ideas and innovations into products, and eventually to spur entrepreneurship.
- DST-NIDHI's **PRomoting and Accelerating Young and ASpiring technology entrepreneurs (PRAYAS)** is specifically to support young innovators turn their ideas into PoC.
- It is a **pre-incubation initiative** that would be implemented through a Program Management Unit (PMU) and the incubators selected for implementing the PRAYAS program will be the PRAYAS Centres (PCs).

### **Objectives-**

- To enable translation of an innovative idea to a prototype.
- To provide a platform for faster experimentation and modify approaches in the idea to market journey.
- To indigenously generate innovative solutions relevant to the local and global problems.
- To attract a large number of youth who demonstrates problem solving zeal and abilities
- To work on their new technology/knowledge/innovation based startups.
- To enhance the pipeline in terms of quality and quantity of innovative startups to the incubators.
- To build a vibrant innovation ecosystem, by establishing a network between innovators, academia, mentors and incubators.