



DRDO inks first high-value deep tech project agreement with a start-up under TDF scheme for indigenous development of 20 mK Dilution Refrigerator for Quantum Applications

Posted On: 24 SEP 2026 7:15PM by PIB Delhi

Under the Technology Development Fund (TDF) scheme, Defence Research and Development Organisation (DRDO) has signed the first high-value deep tech project agreement with the Industry (Start-up) Zero mK India Private Limited towards collaborative effort for indigenous development of a 20 mK Dilution Refrigerator for Quantum Applications. The signing of the agreement took place between Director, TDF and Zero mK India Private Limited, Alwar, Rajasthan in New Delhi. It is the first high value agreement under the Rs 500 crore corpus which was earlier approved by Raksha Mantri Shri Rajnath Singh for deep-tech and cutting-edge projects.

Dilution refrigerators are specialised cryogenic systems capable of achieving extremely low temperatures in the millikelvin range. Such ultra-low-temperature environment is essential for the operation and testing of several quantum computing platforms and associated quantum technologies.

The indigenous development of 20 mK-class dilution refrigerator aligns with the National Quantum Mission and strengthens India's capabilities in quantum technology, advanced cryogenics and strategic technologies, contributing towards a self-reliant, quantum-ready ecosystem. This will contribute towards reducing dependence on imported cryogenic infrastructure and strengthening the domestic quantum technology ecosystem.

Raksha Mantri Shri Rajnath Singh has complimented DRDO, industry and all stakeholders associated with this important project. He expressed confidence that the partnership will set an important precedent for future DRDO-Industry collaborations in emerging technology domains.

Congratulating the teams associated with the initiative, Defence Secretary and Secretary, Department of Defence R&D and Chairman, DRDO Shri Rajesh Kumar Singh wished them success in achieving the project objectives.

Director General, Micro Electronic Devices & Computational System and Cyber Security (DG MCC); Director General, Technology Management (DG TM); Director, Solid State Physics Laboratory (SSPL), and other stakeholders were present on the occasion. The project is being monitored, mentored and supported by Director, SSPL and his team.



SR/Savvy

(Release ID: 2314536) Visitor Counter : 665

Read this release in: Urdu , हिन्दी