



iDEX Innovations for
Defence Excellence
PM Awardee

Re-Open Batch 2.0

Problem Statements

S. No	Name of Agency	Number of Problem Statements
1.	Indian Army	01
Total		1

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INDIAN ARMY

PROBLEM STATEMENT

ADITI 2.0 Problem Statement – 1 : Anti-Drone Capability for Armoured Fighting Vehicles (AFV)

Organization Name	Indian Army
Problem Statement/ Challenge title	Anti-Drone Capability for Armoured Fighting Vehicles (AFV)
Challenge brief/definition	<ol style="list-style-type: none"> 1. Ongoing conflicts have highlighted the proliferation of Drones for undertaking precision strikes on AFVs. Drones, in rotary & fixed wing variants, are highly manoeuvrable and have introduced a new dimension of aerial threat for the AFVs. 2. Tank T-90 has a remotely operated 12.7 mm Anti-Aircraft Gun to repulse low speed aerial targets. The detection and observation of targets as well as firing are affected by the commander of T-90 tank manually. 3. The present capability for detection, recognition & identification, operation of the gun, and type of ammunition has limited efficacy against fast moving smaller targets like Drones.
Future Expectation from the prototype / Technology Developed	<ol style="list-style-type: none"> 1. Tank T-90 platform based autonomous Anti-Drone capability integrated with the existing 12.7 mm Anti-Aircraft Gun of Tank T-90 as under: - <ol style="list-style-type: none"> (a) 360-degree autonomous detection, recognition & identification (DRI) of targets and alerting of tank crew. (b) Autonomous tracking. (c) Development of fragmentation rounds with safety arming feature to be fired from the existing Anti-Aircraft Gun of Tank T-90. 2. AI based algorithm for target DRI and tracking: - <ol style="list-style-type: none"> (a) Detection Range – 5000m. (b) Recognition Range- 3000m. (c) Identification Range-2000m.