



IDR Research And Development Pvt. Ltd.

ABOUT IDR

IDR Research & Development Pvt Ltd is a deep tech company in the aerospace sector aiming to redefine the concept of military surveillance by means of Nano Drone Technology. We are enabling carbon-free, smart, nano size aerial solutions with inherent capability to ensure speed, negligible visual & acoustic signatures, ease of operations, and precise navigation bringing new dimensions to military surveillance during operations. Our Electric Vertical Takeoff & Landing (eVTOL) Nano drones and their ecosystem provide end-to-end surveillance solution for forces during counter insurgency, counter terrorist and mechanized operations in all types of terrain.

BUSINESS DEVELOPMENT PARTNER MAXIMA DEFENCE SOLUTION



**Col. Pradeep Sharma, SM
(Retd)**



**Col. Manish Sengar
(Retd)**

CORE TEAM



**Mayank Pratap Singh
Founder & CEO**



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Empowering Indian Armed Forces
with Cutting-edge Indigenous

NANO UAV TECHNOLOGY



IDR DDOOT MK-1

The First Responder



IDR Research And Development Pvt. Ltd.

FOR NATION, ONLY FOR NATION
— राष्ट्र के लिए, सिर्फ राष्ट्र के लिए —

TECHNICAL SPECIFICATIONS

WHAT MAKES IDR Doot MK-1 DIFFERENT



CAPABILITIES

Personal Nano-sized UAV system

Launch within 10 seconds

Live HD feed in multiple screens

Non Line of sight operability

Swappable battery options

All terrain operability

Less visual & acoustic signature

Encrypted communication link

Rapid fast charging for emergency ops

Easily transportable (less than 2 kg)

Build to operate in small spaces, compact dense areas, jungle & mountain areas

➤ Compact Size
155 x 125 x 55 mm

➤ Ultra Light Weight
Under 350 gms

➤ Endurance
Upto 25 minutes

➤ Live Video Feed
Range (LOS): 1.5 KM
Range (NLOS): 200 Meters

➤ AGL
Upto 750 m

➤ Non GPS Flying
Close Combat Ops, Urban Warfare

➤ Less Visual & Acoustic Signature
Less Than 10 dB At 70 m Height

➤ Cruise Speed
Max 80 KMPH

➤ Navigation
Autonomous, Compatible With Defence Series Map

➤ Fail Safe Features
RTH On Communication Failure & Low Battery



DESIGN

Indigenously Designed and developed nano UAV. The modular design ensures a lightweight and compact build, enabling operation in diverse weather and terrain conditions.



AVIONICS

Incorporated with compact, nano-sized, high-precision sensors and electronics to achieve optimal performance. The electronic circuit is fully shielded & protected, ensuring a seamless & interference-free communication.



DEP (Distributed Electric Propulsion)

Distributed Electric Propulsion with two point failure & maximum safety. SIC based high voltage propulsion system for maximum efficiency



BATTERY

Specially designed batteries to operate at maximum efficiency in negative ambient temperature from -10° C to 50° C