



**GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF CIVIL AVIATION
DRONE DIRECTORATE**

TYPE CERTIFICATE

No.: T0125000002N

This certificate, issued to ***M/s DR MGR ARI NAVAL & AEROSPACE INNOVATION LLP***
certifies that the Unmanned Aircraft System

"NAI AGRO DRONE"

*its technical specifications and operating limitations for which are contained in
Datasheet No **T0125000002N** dated **15th January, 2025** is of proper design,
material, specification, construction and performance for safe operation based on
the recommendation of **TQ Cert Services Private Limited** as required by the
Certification Scheme for Unmanned Aircraft Systems notified by the Ministry of
Civil Aviation vide S.O. 347(E) dated the 26th of January, 2022.*

*This Type Certificate is issued under the provision of Rule 8 and Rule 9 (3) of the
Drone Rules 2021.*

This certificate shall remain valid until suspended or cancelled.

Date: 15th January, 2025

Director General of Civil Aviation

**Technical Specifications Of M/S DR MGR ARI NAVAL & AEROSPACE INNOVATION LLP's
UAS Model NAI AGRO DRONE**

Manufacturer Name	DR MGR ARI NAVAL & AEROSPACE INNOVATION LLP
Address	5TH FLOOR DR MGR ARI NAVAL AND AEROSPACE INNOVATION LLP , GOLDEN GEORGE NAGAR,MOGAPPAIR WEST,MADURAVOYAL,CHENNAI-600107. , Chennai , TAMIL NADU , 600107 , INDIA
UAS Model Name	NAI AGRO DRONE
Description	NAI AGRO DRONE UAS is rotorcraft (Hexa-copter) having a spray system with maximum allowed capacity of 10 liters tank for agrochemical spraying and seed spreading.
UAS Details	
Category/Sub-Category	rotorcraft (RPAS)
Class	MEDIUM
Maximum all-up-weight(including payload) in kg	28.7
Overall dimensions (l x b x h) in mm	2048.0 x 1787.0 x 736.0
Payload Details	
Details of each Compatible Payload (including Manufacturer Name, Payload Specifications with Model No., Intended Applications)	Config-1: Sprayer tank with maximum allowed capacity of 10 litres spraying Agrochemicals. Config-2: Seed Spreader with maximum allowed capacity of 9Kg for seed spreading.
Variable Load/Consumables (Like fluid etc., if any)	Config-1: 10 litres spraying Agrochemicals. Config-2: 9Kg for seed spreading.
Power plant Details	
Engine details (Manufacturer details, Model No.)	NA , NA
Engine/Motor	Hobby wing X6 plus BLDC Motor
Power Rating	1952 watts
No. of Engines/ Motors	6
Total fuel capacity (kg)/ Battery capacity (mAh)	21000.0 mAh
Propeller details (Diameter, Max RPM)	Diameter - 24 inches , Pitch - 8 , Max RPM - 5382
Equipment Details	
GNSS	Available
Autonomous Flight Termination System or Return Home (RH)	Available Available

Flashing anti-collision strobe lights	Not Available
RFID and GSM SIM Card	RFID- Not Available GSM SIM Card- Not Available
Flight control Module	Available
SSR transponder (Mode 'C' or 'S') or ADS-B OUT equipment (if applicable)	Not Available Not Available
Barometric equipment (with capability for remote sub-scale setting) (if applicable)	Not Available
Geo-fencing Capability	Available
Detect and Avoid Capability (if applicable)	Not Available
Remote Pilot Station	
Ground Control Station Model No.	DR MGR NAI
GCS App. Version	V 1.5.2.6
C2 Link	
Equipment details	SKYDROID T12
Frequency Band	2.401-2.471 GHz
ETA issued by WPC Wing, DoT	Details- ETA-SD-20230807268 Date: 16-03-2024
Performance Details	
Maximum Endurance (hr/m)	10.10 minutes
Maximum Range (in km)	0.6 Km
Maximum Speed (in m/s)	10.0 m/sec
Maximum Height attainable/ Maximum Ceiling Height (in ft)	98.42 ft
Operating Altitude (in ft)	98.42 ft
Operational Envelope	VLOS Day
Engine limits (Maximum RPM) / Max. Battery Temperature (in deg C)	60.0 deg C
Propeller limits (Maximum)	5382
Documents / Manuals	
Manufacturer's Operating Manual (as applicable)	FLIGHT MANUAL NAI AGRO DRONE Ver. 11.0 dated 12th December, 2024
Manufacturer's Maintenance guidelines (as applicable)	MAINTENANCE MANUAL NAI AGRO DRONE Ver. 9.0 dated 27th December, 2024
Maintenance Inspection Schedule/Overhaul interval	MAINTENANCE MANUAL NAI AGRO DRONE Ver. 9 dated 27th December, 2024

Maintenance Log Book	UAS MAINTENANCE LOGBOOK Ver. 7 dated 27th December, 2024
Flight Log Book	UAS FLIGHT LOGBOOK Ver. 2.0 dated 10th October, 2024
User Guide/ Self Explanatory Information Booklet for end users	FLIGHT MANUAL NAI AGRO DRONE Ver. 11.0 dated 12th December, 2024
Intended Applications	
Intended Applications	Agrochemical spraying and seed spreading for agricultural purposes.

Limitations & Conditions to DR MGR ARI NAVAL & AEROSPACE INNOVATION LLP for manufacturing of UAS Model NAI AGRO DRONE

1. **M/s. DR MGR ARI NAVAL & AEROSPACE INNOVATION LLP, Chennai** henceforth referred as manufacturer in this documents shall comply with the applicable Rules, Regulations & Requirements issued from time to time. The manufacturer shall comply with mandatory safety features (if any) as and when mandated by Ministry of Civil Aviation/DGCA.
2. Design documents and manuals submitted shall be frozen and controlled. Any changes effecting to the Type Certificate/Data sheet, the manufacturer shall approach through Authorised Testing Entity for up-dation of the Type Certificate/Data Sheet issued there under.
3. Manufacturer shall be responsible for all UAS Model “**NAI AGRO DRONE**” produced by them conforms to this type certificate & data sheet and shall issue a certificate of conformity for each UAS produced.
4. Manufacturer shall ensure that their UAS is not tampered at the time of sale and also at the time of maintenance. Manufacturer shall monitor the same and notified to DGCA as and when required.
5. Manufacturer shall maintain list of their vendors, bill of materials, inventory of UAS including buyer details with configurations sold to them etc. and access to the same shall be provided to DGCA during surveillance and as & when requested for. It shall be the responsibility of the manufacturer to ensure that their UAS are sold to bonafide customers.
6. **Manufacturer shall ensure that operations is restricted to Visual Line of Sight & for day operations only and within the operations/ performance limitations specified in the frozen manuals.**
7. Manufacturer shall affix fireproof plate for indicating UIN, Manufacturer's name, model no. and serial no. in all the UAS manufactured before it is transferred to the buyer.
8. Manufacturer shall intimate DGCA about any violations, defects, faults, malfunctions, incidents and accidents involving the subject UAS model quarterly and as when sought for.
9. **UAS Model “NAI AGRO DRONE” can be used for intended applications only. Manufacturer shall ensure that the drone is flown away (30m) from uninvolved people and not flown over the crowd/ uninvolved people.**
10. **The endurance of UAS model "NAI AGRO DRONE" with full (tank) payload (without dispensing) is 10 minutes 10 Seconds and the endurance with empty (tank) payload is 20 minutes 20 Seconds. This note is included in the "Limitations & Conditions" section of TCDS due to current limitation in the digital sky platform.**
11. The manufacturer shall be responsible for ensuring applicable conditions and educate end users accordingly.
12. Manufacturer shall be responsible for rights related to design and development of the UAS model “**NAI AGRO DRONE**” and DGCA shall not be party to any dispute arising due to proprietary right issues.
13. Manufacturer shall abide by the IT Act 2000 and any subsequent revision.
14. In case of violation of any of the above mentioned conditions and/ or operating requirements & restrictions specified in this Type Certificate, penal action shall be initiated in line with the Drone Rules, 2021 and other applicable rules issued from time to time.

