# Tethered Multi-copter 2 Payload 50Kg High Payload Multi Copter Platform (HPMP)

# Tethered multi-copter 2 (T2)

**System Description:** Tethered multi-copter 2 (T2) has been configured as 12 axis-copter for payload of 50kg with redundant tethered power supply and automatic cable winching system. The frame is foldable and is made of Carbon composite material.

# Technical specification and features of the Tethered multi-copter2 (T2)

The Tethered Multi-copter2 (T2) should be capable of meeting the following Technical specifications.

Sr. No	Parameter	Specifications		
. 1	Payload Weight	50 kg		
2	Altitude of operation	100 m (AGL) 3500 m (MSL)		
3	Wind Speed	8.333 m/s (30 kmph)		
4	Environment	Clear weather		
5	Endurance	4 hrs		
6	Safety features and other features	<ol> <li>Return to Launch Point if communication is lost</li> <li>Return to Launch Point if Battery power goes below critical level</li> <li>Return to Launch Point if wind speed is more than 8.333m/s (30 kmph).</li> <li>Precision Take-off and landing on landing platform.</li> </ol>		



Tethered multi-copter 2 (T2)

1. Interested companies/industries are requested to apply against this EoI to following address:-

To, The Director Research & Development Establishment (Engineers) DRDO, Govt. of India, Ministry of Defence, Kalas, Alandi Road, Dighi P. O., Pune- 411015 India Phone No: 020-27044000 Email-director.rde@gov.in Fax No: 020-27044009

2. A copy of interest may be sent to the following address without any attachment:-

To, The Director, Directorate of Industry Interface & Technology Management (DIITM), Room No. 447, DRDO Bhawan, Rajaji Marg, New Delhi-110 011 <u>Email-diitm.hqr@gov.in</u> <u>Fax-011-23793008</u> All industries interested in seeking ToT are requested to apply in the format given below. Kindly fill in the fields. The list of documents to be attached is provided in Annexure -I. Kindly provide the reference of page no. of supporting document in the relevant field of form.

## PART-1

# **General Information**

(Please enclose documents in support of information provided)

1.	NameoftheTechnologyrequestedforTechnologyTransfer(Technologynameandconcerned Lab, Category)					
2.	Name of the industry/ organization					
3.	Complete Address and other details					
	Registered Office					
	State Phone No Fax Email Website					
	Factory					
	State Phone No Fax Email Website					
4.	Point of ContactNameDesignationAddressMobile NoPh NoEmail ID					
5.	NAME OF CMD/ MD /PARTNERS/ PROPRIETOR/					
	etcNameDesignationAddressMobile NoPh NoEmail ID					
6.	Date of Incorporation of company					
7.	Foreign Direct Investment in company (if any in %)					
8.	Shareholding pattern					
9.	Turn over as per Audited Balance Sheet for the preceding three years. Year Year Year					
10.	Annual budget for R&D during last three years (if					

any)	
Year Year	
Year	
11.       Income Tax returns for the preceding three years period         Year         Year         Year         Year         Year         Year	
12. <b>Nature of company</b> DPSU, Private Limited, Public Limited, Partnership, Proprietary, Ex- Serviceman Unit	
13. <b>Category of industry</b> Large Scale, Medium Scale, Small Scale, Micro, Startup	
14. MSME Registration No	
15. Certificates of registration as a manufacturing unit, if any.	
16. If Startup, DPIIT Registration No	
17. UDYOG AADHAR No	
18. PAN Number	
19. Details of Industrial license for defence manufacturing issued by DPIIT (if any)	
20. Details of PESO license (if any)	
21. GST Number	
22. <b>Nature of business</b> Manufacturing/ Sole Selling or Authorized Agent/ Assembler/ Traders/ Dealer/ Processor/ Repacker/ Others	
23. <b>Details of current products and services</b> Products and services Supplied (please specify Govt/ Domestic market/ Export)	
24. <b>Record of past performance</b> (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).	
25. <b>Details of registration</b> with NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association (Attach relevant copies of registration letters)	
26. <b>Have you already taken any technology from</b> <b>DRDO</b> (If yes, give details attaching separate sheet)	
Name of the Technology, Lab, Year, License number & Status	
27. <b>ISO/ ISI certification or any other certification</b> (If yes, give details)	
28. Relevant clearances form the authorities/ ministries (if any)	
29. Capacity and capability to undertake	

	developmental work and to accept attendant financial and commercial risks.	
30.	Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality.	

#### <u> PART-2</u>

# Infrastructure and other Information

1.	Total area of factory	
	Covered (m <sup>2</sup> ),	
	Uncovered (m <sup>2</sup> ),	
	Bonded space available (m <sup>2</sup> )	
2.	Ownership of factory	
	Self-owned, partnership, rental	
3.	Electric power	
	Sanctioned	
	Installed	
	Standby (if any)	
4.	Availability of adequate infrastructure	
	(List of machines and their production capacities) and	
	technical expertise	
5.	Name of bank & A/c No Name of bank	
	A/c type	
	A/c no	
	Address of the bank	
	Phone:	
	Email:	

#### 6. Details of current products:

S.No	Туре	Description	Licensed/installed capacity	Annual	production	for
				preceding 3 years		

#### 7. Details of foreign collaboration, if any

S.No	Product	Name and address of collaborator	Year	Remarks

#### 8. Details of products developed for services

	S.No	No Nomenclature of stores Order No. and date		Remarks
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# 9. Please give details of important facilities & infrastructure as per following format for:

- (a) Production
- (b) Unconventional, special m/c
- (c) Testing & quality control facilities

S.No	Description of m/c	Make & model	Qty	Date of purchase	Remarks

#### 10. Furnish the following details with relevant certificates and documents

- (a) R&D facilities available
- (b) Inspection quality control of raw material components
- (c) Assistance from central agency for testing / calibration etc.
- (d) laboratory and drawing office facility

#### **11. Principal customers:**

S. No	Name & address	S.O No and date	Date of last supply	Products supplied	Value

# 12. Future plans (if any) in respect of expansion programme/ installation of additional machines/ test facilities etc.

# 13. Name of the technology requested for transfer

(give self-assessment of your capability to absorb the technology)

# 14. Details of employee as on date on firm's pay roll

PERMANENT				
Category	gory Post Held		Qualification	Total Service
Technical	Prod. Manager Q.C. Manager Supervisor Testing Staff (QC) Skilled workers Unskilled workers, etc			
Administrative	Purchase Manager Accounts Officer Office Superintendent Clerical Others, etc			

TEMPORARY		-		
Category	Post Held	Number	Qualification	Total Service
Technical	Prod. Manager Q.C. Manager Supervisor Testing Staff (QC) Skilled workers Unskilled workers, etc			
Administrative	Purchase Manager Accounts Officer Office Superintendent Clerical Others, etc			

#### **DECLARATION**:

I / we confirm that the information furnished in Part 1 & 2 above is correct. In the event of any information given by me / us is found incorrect / false at any time, I / we understand our EoI for ToT will be cancelled/ rejected without notice, beside any other appropriate action against me / us.

Industry seal

Authorized signatory Name(s) in capital Designation and seal of authorized signatory

Date: Place:

# List of Support documents to be attached with Eol

- (a) Memorandum and Articles of Association (Should be incorporated as per Indian Companies Act, as amended time to time)
- (b) Certificates of registration as a manufacturing unit, if any.
- (c) Audited Balance Sheet for the preceding three years.
- (d) Income Tax returns for the preceding three year period
- (e) Details of shareholding/ownership pattern especially foreign partners/ shareholders, foreign employees, directors, etc. The company must adhere to the prevailing Govt of India policies and regulations on Foreign Direct Investment (FDI)/DIPP norms as applicable.
- (f) Annual budget for R&D during last three years.
- (g) Numbers and details of IPR or patents, etc., held by the company.
- (h) Number of technically or professionally qualified personnel.
- (i) Record of past performance (e.g., Supply orders executed against of Ministry of Defence orders, Public Sectors and Paramilitary Forces, if any).
- (j) Availability of adequate infrastructure (List of machines and their production capacities) and technical expertise.
- (k) List of Testing and Support equipment's
- (I) ISO/ ISI certification or any other certification
- (m) Relevant clearances form the authorities/ ministries (if any)
- (n) Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.
- (o) Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality.
- (p) PESO and DPIIT license for explosive handling if ToT is for high energy Material, explosives, propellants, and component/ system dealing with it etc.
- (q) Under taking form company seeking ToT that none of its Directors, Independent Directors, non-executive Directors, Key management personnel are involved in any corrupt practices, unfair means and illegal activities.
- (r) Details of the industrials license for defence manufacturing be provided by the industry seeking ToTs.
- (s) Application cum Industry Assessment Form.