

### **Semi Active Laser Homing System**

1. Semi Active Laser Homing is a technique used to provide the in-flight guidance to munitions to hit the intended target. Instruments Research and Development Establishment (IRDE), Dehradun has designed & developed laser homing systems based on semi active laser guidance of semi active laser guidance kit which works in conjunction with laser designator.
2. The Semi Active Laser Homing System consists of front end optics for collecting the scattered incident radiation and detector with proximity electronics for the required signal processing. The optics module for the homing system is designed to achieve the required range & Field of View (FOV). It contains focusing optics along with an interference filter for suppressing the unwanted background radiation. A silicon Quadrant Detector (QD) is used for the detection of scattered laser radiations from the target. All the scattered radiation from the target is focused by the focusing optics onto the QD. The homing system proximity electronics consists of four identical low noise trans-impedance amplifiers with variable gain. The laser homing system will detect the laser pulses of low time constant at the output of the detector, which results in large bandwidth requirement of the Trans-impedance amplifiers.
3. Interested industries are requested to forward their Expression of Interest (EoI) (with supporting documents) to Director IRDE with a copy to Director DIITM, DRDO HQ (without supporting documents) to the addresses mentioned below:-

#### **Director**

**Instruments Research and Development Establishment (IRDE)**

**DRDO, Ministry of Defence**

**Raipur PO, Dehradun-248008**

**Phone No: 0135-2787169**

**Fax: 0135-2787161/2787128**

**Email ID: director[dot]irde[at]gov[dot]in**

**Copy to:** (For information only)

#### **Director**

**Directorate of Industry Interface and Technology Management (DIITM)**

**Room No 447, DRDO Bhawan, DRDO HQrs, Rajaji Marg, New Delhi – 110011**

**Phone No: 01123013209/ 23015291**

**Fax No: 011-23793008**

**Email ID: diitm[dot]hqr[at]gov[dot]in**

**List of Supporting Documents to be Attached with EoI**

- (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 Financial Years
- (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
- (l) ISO/ ISI certification or any other certification
- (m) Relevant clearances from 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) Confirmation of Industrial license as per Press Note No 1 (2019 series)
- (q) Under taking from 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) Duly filled Application cum Industry Assessment Form (as per **annexure** attached)

**Annexure**

All Industries interested in seeking (Transfer of Technology) ToT are requested to furnish details in the format given in Part-1 & Part-2 below and 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)

<b>1</b>	<b>Name of the Technology requested for Technology Transfer (Technology name and concerned Lab, Category)</b>	
<b>2</b>	<b>Name of the industry/ organization</b>	
<b>3</b>	<b>Complete Address and other details</b>	
	<b>Registered Office</b>  State Phone No Fax Email Website	
	<b>Factory</b>  State Phone No Fax Email Website	
<b>4</b>	<b>Point of Contact</b> Name Designation Address Mobile No Ph No Email ID	
<b>5</b>	<b>NAME OF CMD/ MD /PARTNERS/ PROPRIETOR/ etc</b> Name Designation Address Mobile No Ph No Email ID	
<b>6</b>	<b>Date of Incorporation of company</b>	
<b>7</b>	<b>Foreign Direct Investment in company (if any in %)</b>	
<b>8</b>	<b>Shareholding pattern</b>	
<b>9</b>	<b>Turn over as per Audited Balance Sheet for the preceding three years.</b> Year _____ Year _____ Year _____	
<b>10</b>	<b>Annual budget for R&amp;D during last three years (if any)</b> Year _____ Year _____ Year _____	

11	<b>Income Tax returns for the preceding three years period</b> 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	<b>MSME Registration No</b>	
15	<b>Certificates of registration as a manufacturing unit, if any.</b>	
16	<b>If Startup, DPIIT Registration No</b>	
17	<b>UDYOG AADHAR No</b>	
18	<b>PAN Number</b>	
19	<b>Details of Industrial license for defence manufacturing issued by DPIIT (if any)</b>	
20	<b>Details of PESO license (if any)</b>	
21	<b>GST Number</b>	
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 with</b> NSIC / SSI, DGS&D, other Defence Department, other Govt. Dept, membership of FICCI/ASSOCHAM/CII or other Industrial Association <b>(Attach relevant copies of registration letters)</b>	
26	<b>Have you already taken any technology from 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	<b>Relevant clearances form the authorities/ ministries</b> (if any)	
29	<b>Capacity and capability to undertake developmental work and to accept attendant financial and commercial risks.</b>	
30	<b>Capacity/capability to market the product through the marketing network, sales and service network, reliability to maintain confidentiality.</b>	

## **PART-2**

### **Infrastructure and other Information**

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

### **6 Details of current products:**

S.No	Type	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	Nomenclature of stores	Order No. and date	Remarks

### **9 Please give details of important facilities & infrastructure as per following format for:**

- (g) Production
- (h) Unconventional, special m/c
- (i) 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**

- (i) R&D facilities available
- (j) Inspection quality control of raw material components
- (k) Assistance from central agency for testing / calibration etc.
- (l) 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	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			

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: