

# **TENDER DOCUMENT**

## **Tender for Optics Lab Equipments**

for

**Department of Applied Sciences (Physics)**



**TENDER NUMBER: NITD/03/Stores/221/2016-17**

**Last Date of Tender Submission: 27<sup>th</sup> January, 2017  
(Up to 05:00 PM)**

## **NATIONAL INSTITUTE OF TECHNOLOGY DELHI**

An autonomous Institute under the

Ministry of Human Resource Development, Government of India

**Sector A-7, Institutional Area, Narela**

**Delhi – 110 040 (INDIA)**

NIT Delhi is an autonomous Institute under the aegis of Ministry of Human Resource Development, Government of India. The Institute is expanding its academic and research interest in various fields of Engineering and Technology and for the same invites tender for the procurement of Optics Laboratory Equipments for the Department of Applied Sciences (Physics) as per technical specifications enclosed as Annexure – II in this tender document.

The Tender Document can be downloaded from the NIT Delhi website ([www.nitdelhi.ac.in](http://www.nitdelhi.ac.in)). The bidders are requested to read the tender document carefully and ensure compliance with all specifications/ instructions herein. Non-compliance with specifications/ instructions in this document may lead to disqualification of the bidders from the tender exercise.

**The Director, NIT Delhi, reserves the right to accept the offer or to accept/reject any quotation wholly or partly without assigning any reason.**

Incomplete tenders, amendments and additions to tender after opening or late tenders are liable to be ignored and rejected.

Sealed tenders are hereby invited on behalf of The Director, NATIONAL INSTITUTE OF TECHNOLOGY, Delhi (NITD) from the manufacturers and authorized dealers with respect to the following item categories:

## 1. ITEM CATEGORIES

Category Number	Description	Tender Fees (Non Refundable)	EMD (Refundable)
I	Optical Components required for research work (Physics Laboratory)	₹1,000/-	₹25,000/-
II	Opto-mechanical Components (mounts and stages equipments) required for research work (Physics Laboratory)	₹1,000/-	₹8,000/-

**Interested firms may quote for one or all items.**

## 2. BIDDER'S ELIGIBILITY CRITERIA

**2.1** The bidder should be approved/recognized/registered by Govt. of India/State Govt. for providing similar goods/services.

**2.2** The bidders should not have been blacklisted by any Govt., Semi-Govt. Deptt., or any other organization and bidders should not have any litigation in any of the Court(s). An affidavit to this effect on Non-Judicial stamp paper of Rs. 10/- (Rupees ten only) duly

notarized should be enclosed with the Technical Bid. Also to note that the applicant is /has not formed/part of any cartel at any time for processing any contract including the present tender.

**2.3** The bidder must have sound financial stability. Copies of audited balance sheets and ITR certificates for past three years must be enclosed.

**2.4** Earnest Money Deposit (EMD) and Non Refundable Tender Fee documents are enclosed as per the instructions given in section 3.2

**2.5** Bids are submitted by the bidder in two bid format in separate sealed envelopes as per instructions given in section 3.3.4

**2.6** Bids are received within the stipulated due date and time as per section 3.1

**2.7 Bidders should be the manufacturer / authorized dealer. Letter of Authorization from Original Equipment Manufacturer (OEM), in original, on the same and specific to the tender should be enclosed along with an undertaking from the OEM stating that they would facilitate the bidder on a regular basis with technology/product updates and extend support for the warranty as well.**

**2.8** Preference will be given to the Vendors who have earlier supplied the equipment to any of the NITs, IITs, IISc, IISERs and other Scientific Institutions of National Repute. The details of such institutions along with the name and cost of equipment supplied may also be furnished with the bids.

**2.9** Non-compliance of tender terms and conditions, non-submission of required documents, lack of clarity of the specifications, contradiction between bidder specification and supporting documents etc. may automatically lead to rejection of the bid.

### **3. INSTRUCTIONS TO BIDDERS**

#### **3.1 IMPORTANT DATES**

**3.1.1 Last Date of Submission of Tender Documents:** 27<sup>th</sup> January 2017 (up to 5:00 PM)

**3.1.2 Opening of Technical Bids:** 30<sup>th</sup> January 2017 (11:30 AM)

**3.1.3 Opening of Financial Bids:** Technically Qualified bidders will be informed about the date and time of opening of Financial bids either through mail or telephonically.

#### **3.2 EMD, TENDER FEE & PERFORMANCE SECURITY**

**3.2.1 EARNEST MONEY DEPOSIT (EMD):** The EMD worth Rs 25,000/- (Rs. Twenty Five Thousand only) for Item Category I and Rs.8,000/- (Rs. Eight Thousand Only) for Item

Category II should be enclosed in the form of Account Payee Bank Draft or Bank Guarantee payable on any branch of Nationalized/Schedule Bank at New Delhi in favour of **“The Director, NIT Delhi”**. All tenders submitted without requisite amount of EMD shall be rejected. No interest is payable on EMD. The EMD will be returned to the bidders(s)/Agent(s) whose offer/tender is not accepted by NIT Delhi within two months from the date of placing of final order(s) to the select bidder(s). **In case of the bidder(s) whose offer is accepted, the EMD will be returned to them without any interest within 30 Days after installation of the equipments, subject to submission of required performance bank guarantee (as per 3.2.3)**. EMD shall be forfeited if the bidder withdraws the bid during the period of bid-validity as specified in the tender.

**3.2.2 TENDER FEE:** A Demand draft of **Rs. 1,000/- (Rupees One Thousand only)** for bidding against each category of items towards non-refundable tender fee drawn in favor of **“The Director, NIT Delhi”** payable at Delhi should accompany the bid documents. In the absence of tender fee, the tender will not be accepted.

**3.2.3 PERFORMANCE SECURITY:** A performance bank guarantee from a scheduled bank in India for an amount equal to 10% of the cost of equipment for duration of two months beyond the expiry of warranty period will be taken from the successful bidder.

i. The successful bidder shall be required to deposit an amount equivalent to 10% of the cost of the equipment as security deposit in shape of FDR from any scheduled bank in India duly pledged in the name of the Director, NIT Delhi valid for the duration of 2 months beyond the expiry of the warranty period of the supplied item(s)

Or

Bank guarantee of the same & equal amount from any scheduled bank in India, valid for the duration of 2 months beyond the expiry of the warranty period of the supplied item(s).

ii. If the bidder fails or neglects any of his obligations under the warranty, it shall be lawful for Director, NIT Delhi to forfeit either whole or any part of performance security furnished by the bidder as a compensation for any loss resulting from such failure.

**3.2.4** Both the EMD as well as Tender Fee must be submitted in a separate sealed envelope super-scribed as **“ENVELOPE III – EMD & Tender Fee”**. Bidders should note that EMD as well as Tender Fee **SHOULD NOT BE** included in the Financial Bid envelope.

**3.2.5** Bidders are instructed to mention the name of their firms at the back side of every Demand Draft being submitted by them as part of this tender.

### **3.3 SUBMISSION OF BID**

**3.3.1** The BID in original form only shall be submitted by the Bidder.

**3.3.2** Bidder is advised to submit the BID strictly in accordance with the terms & condition and specifications contained in the BID documents and not to stipulate any deviation or condition. Institute reserves the right to reject any BID containing deviations to the terms & condition and requirements stipulated in the BID documents.

**3.3.3** In the Financial Bid, the Bidders must quote the rates in figures as well as in words. If there is any discrepancy between the price quoted in figures and words whichever is the higher of the two shall be taken as the BID price.

**3.3.4** BID shall be submitted in three envelopes: **Envelope I - Technical Bid, Envelope II - Financial Bid and Envelope III – EMD & Tender Fee**. All the envelopes should be sealed and appropriately super-scribed with the Envelope number and contents i.e. **“ENVELOPE I: Technical BID”, “ENVELOPE II: Financial BID” and “ENVELOPE III: EMD & Tender Fee”** respectively. All these envelopes should be enclosed in a common **sealed outer envelope**. In case, any of the envelopes is missing, the bid is bound to be rejected. **Bids for each category being quoted must be in separate set of envelopes.**

**3.3.5** The BID must contain the name, address and contact details of business of the person or persons submitting the BID and must be **signed and sealed by the Bidder with his signature on every page of the BID**. The same should be accompanied with complete specifications and drawings, Manufacturer’s name, address etc.

**3.3.6** BID by a partnership firm/consortium of firms must furnish names of all partners and be signed in the partnership name, followed by signatures and designations of authorized partners or other authorized representatives. The copy of partnership deed/consortium agreement should also be furnished in such a case.

**3.3.7** The Bidder’s name stated in the BID **shall be exact legal name** of the firm/ company/ corporation etc. as registered or incorporated. All changes/ alterations/ corrections in the BID shall be signed with date in full by the person or persons signing the bid. **No erasing and/or overwriting is allowed.**

**3.3.8** Transfer of Tender documents purchased by one Bidder to another is not permissible. Similarly, transfer of BID submitted by one Bidder to another is also not permissible. No alteration in the essence of BID, once submitted shall be permissible.

**3.3.9** Manufacturers and authorized dealers of manufacturers only shall participate in the Tender process.

**3.3.10** The envelopes (**separate envelope for each item category**) must be super-scribed with the following information:

- I. Tender Reference Number
- II. Name of the Item category
- III. Due Date of the tender
- IV. Name of the Bidder with Address

V. Envelope number - I, II or III.

**3.3.11** The tender documents must be submitted in an organized and structured manner. All the tender documents should be properly numbered and indexed. No brochures/leaflets etc. should be submitted in loose form.

**3.3.12 Any bid received after the due date as mentioned in 3.1.1 shall not be considered for the tender process and will be rejected.**

**3.3.13 The technical bids will be opened as per the date and time mentioned in 3.1.2 in the office of Assistant Registrar, NATIONAL INSTITUTE OF TECHNOLOGY, Delhi.**

**3.3.14** The bid can be submitted in person or through post/courier (NIT Delhi will not be responsible for delayed/late quotations submitted/sent by Post/Courier etc. resulting in disqualification/ rejection of any bid) so as to reach NIT Delhi on or before the due date and time as prescribed above. Fax/E-mail/ Telegraphic/Telex tenders will not be considered unless it is asked for.

**3.3.15** The bidders or their authorized representatives may also be present during the opening of the Technical Bid, if they desire so, at their own expenses. Note: Financial bids of only those bidders will be opened whose technical bids are found suitable by the committee appointed for the purpose. Technically qualified firms will be notified through mail/phone with a tentative date of opening of financial bids. In exceptional condition, an authorized committee may negotiate price with the qualified bidder quoting the lowest price before awarding the contract.

**3.3.16** While sending rates, the bidder shall give an **undertaking** to the effect that **“the terms/conditions mentioned in the enquiry Letter/Tender Notice against which the rates are being given are acceptable to the bidding firm.”** In case the firms do not give this undertaking, their rates may not be considered.

**3.3.17** The postal address for submitting the tender is:

**Assistant Registrar,  
National Institute of Technology Delhi  
A-7, Institutional Area, Narela, Delhi – 110040**

**3.3.18** The **validity of the tender bid shall be 90 (ninety) days** from the date of opening of BID

## **4 TECHNICAL BID DOCUMENTS**

**4.1** The printed literature and catalogue/brochure giving full technical details should be included with the technical bid to verify the specifications quoted in the tender. The

bidders should submit copies of suitable documents in support of their reputation, credentials and past performance.

**4.2** EMD and Tender Fee documents should be submitted as per details provided in section 3.2. EMD related details should be furnished by the bidder as per Format F-1.

**4.3** Copies of audited balance sheets and ITR certificates for past three years must be enclosed.

**4.4** Copy of LST/CST/WCT No., PAN No. with ownership proof and TIN No. allotted by the concerned authorities shall be provided along with the tender.

**4.5** Latest VAT return is required to be submitted along with bid.

**4.6** An Affidavit on Non-Judicial stamp paper of Rs. 10/- (Rupees ten only) duly notarized as per the format provided in Format F-2 should be submitted.

**4.7** No Deviation Confirmation as per Format F-3 should be enclosed.

**4.8** Letter of Authority as per format provided in Format F-4 should be enclosed if the bidder wishes to attend the technical bid opening and financial bid opening (in case technically qualified).

**4.9** General Information about the bidder as per Format F-5.

**4.10** Duly filled in checklist as per Format F-6 on bidder's letterhead should be enclosed.

**4.11** Bid documents should be submitted as per the above sequence with Index page and properly paginated. Each page of the bid should be signed & stamped in original on bidder's letter head (except affidavits, if any). Unsigned bids will not be considered for evaluation.

## **5 FINANCIAL BID DOCUMENTS**

**5.1** The bidder should quote all the rates for NATIONAL INSTITUTE OF TECHNOLOGY, Delhi (NIT Delhi) on F.O.R. basis. The Prices quoted should be inclusive of all the taxes or duties, packing, forwarding, freight, insurance, delivery and commissioning/installation etc. at destination site (NIT Delhi). The rates shall be firm and final. Nothing extra (e.g. freight, loading/unloading/installation charges etc) shall be paid on any account. In the price bid/financial bid, the bidder should clearly mention the final price breakup i.e. ex-work price/FCA price, FOB price, CIP/CIF price & FOR NIT Delhi campus price, as applicable in their bid.

**5.2 Rates should be quoted by the bidders considering the WARRANTY PERIOD mentioned in Point no. 8 of the tender document.**

**5.3 Annual Maintenance Contract (AMC) Rates should also be quoted by the bidders separately along with the details of the AMC after the warranty period.**

**5.3** In case of imported equipment(s)/item(s), the agency commission, if any, payable in Indian rupees should be mentioned separately. For imported equipment, the Letter of Credit will be opened. The firm should clearly mention the address of foreign bank in the financial bid.

**5.4** For foreign currencies, exchange rate of the date of financial bid opening would be considered for preparation of comparative statement.

## **6 TENDER PERIOD / DELIVERY PERIOD / TIMELINES**

**6.1** The delivery period should be clearly mentioned in the bid documents.

**6.2** The Equipments should be delivered and installed within the period as quoted by the bidder or as mentioned in the purchase order (whichever is earlier) and be ready for use within 6 weeks of the issue of purchase order unless otherwise prescribed.

**6.3** If the bidder fails to deliver and place any or all the Equipments or perform the service by the specified date, penalty at the rate of 0.5% per week or part thereof of the total order value subject to the maximum of 10% of total order value will be liable to be deducted by the Institute.

## **7 TRAINING**

**7.1** Bidders need to provide adequate training to the nominated persons of NIT Delhi at their cost (if required). NIT Delhi will not bear any training expenditure.

**7.2** In case of any such training requirement, the same will be mentioned in the supply orders issued by the institute to the successful bidder from time to time.

## **8 WARRANTY DECLARATION**

**8.1** Bidders must mention the **COMPREHENSIVE ON-SITE WARRANTY period** for the items being quoted from the date of successful installation of Equipments against any manufacturing defects and also give the warranty declaration that **“everything to be supplied by us hereunder shall be free from all defects and faults in material, workmanship and shall be of the highest quality and material of the type ordered, shall be in full conformity with the specification and shall be complete enough to carry out the experiments, as specified in the tender document”**. Any deviation in the material and the specifications from the accepted terms may liable to be rejected and the bidders need to



supply all the goods in the specified form to the satisfaction / specifications specified in the order / contract and demonstrate at their own cost.

**8.2** Details of Annual Maintenance Contract (AMC) after the warranty period may be clearly mentioned in the Financial Bid Documents if the same is provided by the bidder.

## **9 PAYMENT**

**9.1** Payment for the items to be supplied by the vendor against the purchase order shall be made by NATIONAL INSTITUTE OF TECHNOLOGY, Delhi (NIT Delhi) as follows:

**9.1.1** Payment will be released only after satisfactory supply and inspection of the equipments by the Institute.

**9.1.2** Payment shall be released on receipt of the original bills in triplicate completed in all respects and original delivery challans of all the items duly signed and stamped by the authorized representative of the user department.

## **10 PERIOD OF VALIDITY OF BIDS**

**10.1** Period of validity of bids: Bids shall be valid for a period of 90 (Ninety) days from the date of opening the tender.

**10.2** NIT Delhi may ask for the bidder's consent to extend the period of validity. Such request and the response shall be made in writing only. The bidder is free not to accept such request without forfeiting the EMD.

**10.3** A bidder agreeing to the request for extension will not be permitted to modify his bid. Bid evaluation will be based on the bid prices without taking into consideration the above corrections.

## **11 PURCHASER'S RIGHT TO VARY QUANTITY**

NIT Delhi reserves the right at the time of award of Contract to increase or decrease the quantity of items specified in the Schedule of Requirements without any change in price or other terms and conditions. Moreover, NIT Delhi also reserves the right to remove any item altogether while placing the final order with the successful bidder(s).

## **12 CORRUPT OR FRAUDULENT PRACTICES**

NIT Delhi requires that the bidders who wish to bid for this project have highest standards of ethics. NIT Delhi will reject a bid if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices while competing for this contract.

## **13 INTERPRETATION OF CLAUSES IN THE TENDER DOCUMENT**

In case of any ambiguity/dispute in the interpretation of any of the clauses in this Tender Document, Director-NIT Delhi's interpretation of the clauses shall be final and binding on all parties. In the event of any dispute or difference(s) between the vendee Institute (NIT Delhi) and the vendor(s) arising out of non-supply of material or supplies not found in time and according to specifications or any other cause whatsoever relating to the supply or purchase order before or after the supply has been executed, shall be referred to "The Director, NIT Delhi", who may decide the matter himself or may appoint arbitrator(s). The decision of the arbitrator shall be final and binding on both the parties.

## **14 INDEMNITIES**

The vendor shall indemnify, protect and save NIT against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any law pertaining to patent, trademarks, copyrights etc. or such other statutory infringements in respect of all the items supplied by him. NIT Delhi reserves the right to recover the cost towards any damage/loss caused due to the negligence on the part of the agency engaged.

## **15 OTHER GENERAL TERMS AND CONDITIONS**

- 15.1** The bidder should quote all the rates for NATIONAL INSTITUTE OF TECHNOLOGY, Delhi (NIT Delhi) on F.O.R. basis. It will be duty of the bidder to deliver the items at NATIONAL INSTITUTE OF TECHNOLOGY, Delhi (NIT Delhi) without any extra freight or loading/unloading charges.
- 15.2** The items supplied should be new and as per the specifications.
- 15.3** The bids received after the due date and time will not be accepted.
- 15.4** In the event of specified date of opening of tender is declared as holiday, the tender shall be opened at the same place and same time on the next working day.
- 15.5** The bid security will be forfeited if a bidder withdraws its bid during the period of bid validity and in the case of successful bidder, if the bidder fails to sign the contract.
- 15.6** Over writing / over typing should be avoided, if any, should be authenticated by putting the initials by the authorized signatory of the firm.

## **16 JURISDICTION**

Any dispute is subject to the jurisdiction of Delhi courts only.

# **ANNEXURE - I**

## **F-1**

### **DETAILS OF EARNEST MONEY DEPOSIT**

(To be put in a separate sealed envelope marked "Envelope III")

Name of the Bank	:	
Demand Draft/ Bankers Cheque/ FDR No.	:	
Dated	:	
Amount	:	
Address to which the EMD should be returned back	:	

Date:-

**Signature of the Bidder or  
His /Her authorized signatory  
With Seal of the bidder**

## F-2

### DECLARATION BY THE BIDDER

It is hereby declared that I/We the undersigned, have read and examined all the terms and conditions etc. of the tender document for which I/We have signed and submitted the tender under proper lawful Power of Attorney.

It is also certified that all the terms and conditions of the tender document are fully acceptable to me/us and I/We will abide by all the conditions mentioned in the tender document and all the documents submitted by us are genuine and not a work of forgery in any way.

This is also certified that I/We/our principal manufacturing firm has no objection in signing the purchase contract if the opportunity for the supply of the items against this tender is given to me/us.

It is also certified that I/We have not been blacklisted by any Govt., Semi-Govt. Deptt., or any other organization and do not have any litigation in any of the Court(s) against us.

It is also to confirm that I/We is/has not formed/part of any cartel at any time for processing any contract including the present tender.

Date:

Signature:

Address:

Name:

Designation:

On behalf of:

(Company Seal)

## **F-3**

### **NO DEVIATION CONFIRMATION**

To

THE DIRECTOR  
NATIONAL INSTITUTE OF TECHNOLOGY  
DELHI

Dear Sir,

I/We understand that any deviation/exception in any form may result in rejection of BID. I/We, therefore, certify that we have not taken any exceptions/deviations anywhere in the BID and I/ we agree that if any deviation/exception is mentioned or noticed, our BID may be rejected.

(SEAL AND SIGNATURE OF BIDDER)

## F-4

### LETTER OF AUTHORITY

PROFORMA LETTER OF AUTHORITY FOR ATTENDING TECHNICAL & FINANCIAL BID OPENING (in case technically qualified) AND OTHER COMMUNICATION / CORRESPONDENCE RELATING TO BID.

No. -----

Date:

To

THE DIRECTOR  
NATIONAL INSTITUTE OF TECHNOLOGY  
DELHI

Dear Sir,

I/We \_\_\_\_\_ hereby authorize following representative(s) to attend Technical/Financial BID opening and any other correspondence and communication against Bidding Document:

Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_

Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_

We confirm that we shall be bound by all commitments made by aforementioned authorized representatives.

Yours faithfully,

Signature  
Name & Designation  
For and on behalf of

**Note: This letter of authority should be on the letter head of the bidder and should be signed and sealed by the competent authority.**

## F-5

### GENERAL INFORMATION

<b>1</b>	Name of the bidder	
<b>2</b>	Full address of bidder along with Telephone no., Fax no., E-mail address	
<b>3</b>	Local address of company for communication, if any	
<b>4</b>	Are you a manufacturer or dealer/reseller? If Dealer then authorized dealer certificate must be enclosed. If Manufacturer, provide name and address of the manufacturing units along with appropriate certificate in original.	
<b>5a</b>	Annual turnover in last 3 financial years (with audited balance sheets and IT returns) (i) Year 2013-2014 (ii) Year 2014-2015 (iii) Year 2015-2016	
<b>5b</b>	Any previous WO/PO of similar nature to government Organizations/Educational Institutes in last three years with list of such clients with PO copies.	
<b>5c</b>	Trade Tax / Sales Tax Registration no. with Place	
<b>5d</b>	Income Tax Registration no. with place	
<b>5e</b>	Any other registration with any Govt. authority	
<b>6</b>	Delivery Period	

**Signature and Seal of the Bidder**

## F-6

### CHECK LIST

(Please mark which is applicable)

1	Refundable EMD and Non refundable Tender fee (separate for each quoted item category) documents enclosed along with details as per Format F-1	Yes/ No
2	Bid submitted consists of separate sealed envelopes for Technical bid and Financial bid as per the specifications in the tender document (Section 3.3)	Yes/ No
3	Tender document duly signed and sealed by the bidder with his signature on every page of the bid enclosed	Yes/ No
4	Copies of audited balance sheets and ITR certificates for past three years enclosed	Yes/ No
5	Copies of LST/CST/WCT no., PAN no. with ownership proof and TIN no allotted by concerned authorities enclosed	Yes/ No
6	Latest VAT return enclosed	Yes/ No
7	An affidavit on Non-Judicial stamp paper of Rs. 10/- (Rupees ten only) duly notarized as per Format F-2 enclosed	Yes/ No
8	No Deviation confirmation as per Format F-3 enclosed	Yes/ No
9	Letter of authority as per Format F-4 enclosed	Yes/ No
10	Information about the bidder as per Format F-5 enclosed	Yes/ No
11	Authorization certificate from OEM enclosed in original if the bidder is an authorized agent (as per details in section 2.7)	Yes/ No
12	Printed Literature and catalogue/brochure giving full technical details included with the technical bid documents (for verification of specifications quoted in the tender)	Yes/ No
13	Authorization certificate enclosed in original if the bidder is an authorized agent	Yes/ No
14	Rates quoted for comprehensive warranty period	Yes/ No
15	Rates quoted for AMC after the warranty period	Yes/ No
16	Delivery time mentioned in the bid documents	Yes/ No

**Note:** Submission of bids should be as per terms & conditions of this tender.

Dated: .....

Signature of agent/ supplier.....

Name .....

Designation .....

(Agent/ Supplier's seal).....



# ANNEXURE – II

## TECHNICAL SPECIFICATIONS

**ITEM CATEGORY I** - Item Numbers from Serial Numbers 1 to 12

**ITEM CATEGORY II** - Item Numbers from Serial Numbers 13 to 19

Sl. No.	Descriptions of equipment's to be purchased under seed grant	Quantity
1	<b>Laser diode module with power supply:</b> <b>Specification:</b> wavelength 450 nm, power 4.5mW, Unpolarized	01 No
2	<b>Laser diode module with power supply:</b> <b>Specification:</b> wavelength 632 nm, power 4.5mW, Unpolarized	01 No
3	<b>Laser diode module with power supply:</b> <b>Specification:</b> wavelength 532 nm, power 4.5mW, Unpolarized	01 No
4	<b>Monochrome CMOS</b> <b>Specification:</b> Type: Enclosed Number of GPIOs: 4 Resolution: 2560x1920 CMOS chip: Aptina micron MT9P031, rolling shutter (ERS or GRR) Pixel size: 2.2x2.2 µm Dynamic range: 70dB Sensor SNR: 38dB Bit depth: 8 or 12 bit (Switchable) Frame rates: 14fps @2560 x1920, 20 @2048 x1536 Trigger mode: with external trigger (trigger delay<200µs) Power consumption: <2W Dimension: 58x58x34 Weight 150g Operating temperature range: 0-45 °C Recommended system configuration Processor: dual-core intel CPU 1.8GHz or better, or a compatible processor RAM: 1GB or greater , USB 3.0 host controller	01 No
5	<b>Fast CMOS camera</b> Maximum resolution: 3840x2160 Bandwidth: 20 Bgits/sec Frame rate@3840x2160: 240 fps Frame rate@1280x720: 2000 fps Video memory capacity: 128 GBytes Responsivity (V/Lux): 7.7 Pixel size (micron): 4.5 Format: 35mm	01 No.
6	<b>Spatial filter system with Pin hole</b> <b>Specification:</b> Pin hole: 10 micron, axis: 3, distance between the objective mount and pinhole mount can be varied: 30 mm to 50 mm to accommodate various objective sizes, easy to change pinholes and objective	02 No
7	<b>Microscope Objective – 40X</b> <b>Specification:</b> magnification: 40X, type: achromatic and finite, effective focal length: 4.40,	03 No

	numerical aperture: 0.65, field of view (mm): 0.45, depth of focus (micron): 0.4, working distance (mm): 0.6	
8	<b>Rectangular mirror</b> <b>Specification:</b> 1" x 1", Face dimension tolerance: +0.0 mm / -0.1mm, Surface flatness@633nm: $\lambda/10$ , surface quality: 40-20 scratch-dig, parallelism: < 3armin, clear aperture: > 90% of the dimension, reflectance: > 97.5% for 400-700 nm.	02 No
9	<b>Visible Transmission Grating</b> <b>Specification -</b> Visible transmission grating, 1200 grooves/mm, $36.9^\circ$ groove angle, 25mmx25mm	01 No
10	<b>Absorptive neutral density filters</b> <b>Specification –</b> mounted absorptive ND filters, Diameter: 25mm, Optical density: 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 1.0, 2.0, 3.0, 4.0	01 No
11	<b>Non polarizing beam splitter</b> <b>Specifications –</b> size: 1"cube, surface flatness@633nm: $\lambda/10$ , wavefront error@633nm: < $\lambda/4$ , Max. transmitted beam deviation: $0^\circ \pm 5^\circ$ arcmin, split ratio: 50:50, overall performance: $T_{abs} + R_{abs} > 90\%$	02 No
12	<b>Achromatic doublet</b> <b>Specification –</b> Diameter: 1", Arcoating range: 400-700nm, Reflectance over AR coating range: < 0.5%, Focal length tolerance: $\pm 1\%$ , Spherical surface irregularity: $\lambda/4$ , clear aperture: > 90% of the diameter, surface quality: 40-20 scratch-dig, spherical surface power: $3\lambda/2$	02 No
13	<b>High Precision XYZ Stages (5Micron Accuracy)</b> Travel : 15mm Size : 65mm x 90mm Configuration : Left or Right Handed Orthogonality : < 5mrad Angular Deviation : 250 $\mu$ rad Vertical load Capacity : 15 Kg Horizontal Load Capacity : 40Kg Bearing Type : Ball on Hardened V –Grooves Micrometer Range : 0.10mm Division : 5 $\mu$ m Per Sensitivity : Better than 1 $\mu$ m Standard : $\varnothing$ 3/8inch barrel Diameter Revolution : 250 $\mu$ m per Material : Aluminum Alloy Finish : Black Anodized	02 Nos.
14	<b>Pillar Post Assembly (Including Holder, Rod, Base ) Height 50 , 75mm</b>  <u><b>Post Holder</b></u> Length : 50mm, 75mm Diameter : 12.25mm Outer Diameter : 28mm Spring Loaded Hex Locking Thumb Screw: 5mm Mounting Hole Top and Bottom : M6 Material : Aluminum Alloy Finish : Black Anodized  <u><b>Post Rod</b></u> Length : 50mm, 75mm Diameter : +/-12.20mm	10 Nos.

	Material : Stainless Steel Mounting Hole : M6  <b><u>Post Base</u></b> Size : 75mm x 25mm x 9mm Type Base : H Type Clearance Slot : M6 Material : Aluminum Alloy Finish : Black Anodized	
15	<b>Fixed Type Brass Clamp with Knob</b> Size : 82mm x 25mm x 9mm Type Base : H Type Clearance Slot : M6 Material : Brass	08 Nos.
16	<b>Mirror Mount For 25mm x 25mm Square Optics</b> Number of Adjustment Axes: 3Nos (Two Angular and one Translation) Adjustment Range: Angular: +-3deg Translation: 5mm+1mm/-0mm Angular Resolution: 5arcec Drive: 100 TPI Material: Aluminum Alloy Finish: Black Anodized <ol style="list-style-type: none"> <li>1. It will have provision for mounting on a base plate or breadboard through a slot of width 6.5mm (For M6 Screw) If required the slot may be divided into two parts.</li> <li>2. It will have Teflon tipped grub screw from the top for mounting optics and Teflon pad / roll From bottom for securely holding the optics</li> <li>3. The Movement will be through precision brass lead screw with plastic cap holding</li> <li>4. It will provide large clear aperture (by providing a side cut to minimize the obstruction ) for reflected light as well as transmitted light</li> </ol>	10 Nos.
17	<b>Fixed Lens Mount for 25mm Diameter Optics</b> Optics Size : 1" (25.4mm) Optics Thickness : 8to 10mm Mounting Hole : M6 Internally SM Threaded Includes Compatible Retaining Ring Material : Aluminum Alloy Finish : Black Anodized	10 Nos.
18	<b>Diode Laser Mounts with Tip and Tile</b> Kinematic Knobs provide: 3deg pitch and yaw control Accepts cylindrical objects ranging in Diameter for 6.7mm to 51.9mm Includes quick Release Handle for easy Mounting to dia1.5" Post One clamping Arm Include Drive: 100TPI Provide Clamping Force for Our platform Mount Thread M6 Top and Bottom post Material: Aluminum Alloy Finish: Black Anodized	05 Nos.
19	<b>Camera Mounts with Stand</b> Two 100 TPI Adjusters for find Tip and Tilt Control Orient Horizontally or Vertically Designed for use with Clamping Arm (Sold Below) Removable Knobs Expose Adjuster Screw with Hex Socked	02 Nos.

	<p>M6 through Hole Back Plate for mount camera Size: 50mm x 50mm Material: Aluminum Alloy Finish: Black Anodized</p>	
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