

Indian Institute of Technology, Kanpur
Department of Mechanical Engineering

Tender Document

Sub: ENQUIRY LETTER FOR 3D Printer

Tender Enquiry Number: IITK/ME/NS/2022-23/01

Enquiry Date: 01.07.2022

Closing Date: 10.07.2022 Opening Date: 12.07.2022

Quotations are invited for the above-mentioned subject as per the technical specifications given below:

Specifications

Fused Filament-based 3D Object Fabricator Specification		
1	Fabrication Technology	Fused Filament Fabrication (FFF)
2	Fabrication head	Dual extrusion head with auto nozzle lifting system and swappable feeder nozzle of different diameters. (Ref. serial number 16 for details)
3	Build Volume	XYZ: 330 X 240 X 300 mm
4	Filament diameter	2.85 mm
5	Layer resolution	20 microns to 600 microns
6	XYZ resolution	7, 7, 3 micron or better
7	Nozzle heat up time	< 2 minutes.
8	Print speed	less than 24mm ² /sec.
9	Build Platform	Heated Glass/ Aluminum Build Plate
10	Build Platform temperature	30- 140 °C adjustable with 1 °C resolution
11	Build Platform levelling	Automatic and active levelling
12	Build plate heat up time	<4min from 20°C to 60 °C
13	Operating Ambient Temperature	15- 32 °C , 10-90% RH non- condensing
14	Supported Materials	Optimized for PLA, Tough PLA, ABS, Nylon, CPE, CPE+, PP, PC, TPU 95A, PVA, composite materials, metal filament. Should support 3rd Party Materials.
15	Advanced Supported material	Must be upgradable to Metal 3dPrinting solution
16	Feeder mechanism	Dual-gearred, abrasion-resistance, reinforced for composite materials& Bowden tube.
17	Feeder Nozzle Diameter	Must support the following diameters - 0.25mm, 0.4mm, 0.6mm,0.8 mm
18	Feeder Nozzle Temperature	180 to 280 degrees Celsius
19	Material Recognition	Auto-recognition with NFC scanner
20	Connectivity	WiFi, LAN, USB port (accessible through LCD screen)
21	Display	4.7" (11.9 cm) colour touch screen
22	Supported 3D CAD File Types	STL, OBJ, X3D, 3MF, BMP, JPG, PNG
23	Printable format	G, GCODE, UPF
24	Weight of the machine	21 kg (Approx.)
25	Dimensions of the assembled machine	495 x 585 x 780 mm (Approx.)
26	Monitoring (Live)	via integrated vision sensor with software support (view from desktop or app)
27	Software	Print preparation and Print management software to be provided with automatic air and filament manager control system. Software should be capable of automatic support structure generation. Should include remote printing software. Should have predefined profile settings for more than 45 materials such as Ensinger, infinite, BASF, Arkema, DSM, Lehvoss, Jabil, Igus, Owens Corning, Kimya, Clariant, Polymaker, Solvay Solef, Mitsubishi & Lubrizol.

28	Certification	Product should be BIS, WPC, CE, EU, ROHS certified. Certificates to be provided. ISO 9001: The bidder or the OEM of the offered product must have ISO 9001 certification.
Additional Requirements	<ol style="list-style-type: none"> 1. Bidder should be OEM or OEM authorised Indian representative. In case of authorised representative: OEM authorization to be provided. 2. Bidder should have a 3-year proven record of sales of same or similar category product to reputed Government, research organizations and educational institutes. Relevant proof of the same should be enclosed. 	
<p>Bid Evaluation Criteria:</p> <ol style="list-style-type: none"> 1) The cost comparison for the offer will be carried out on a set basis and not on an individual component basis. 2) Only offers received from OEM or OEM authorized distributors/sales representatives will be considered. The supplier must attach the authorization certificate from the OEM failing which quotations are liable to be rejected. <p>Bidder Qualification Criteria:</p> <ol style="list-style-type: none"> 1) Detailed technical literature / data sheet must accompany quotations, failing which quotations are liable to be rejected. <p>Acceptance Criterion:</p> <ol style="list-style-type: none"> 1) System should be supplied as an integrated unit in a ready to use condition. 2) The system must be supplied with the required software for slicing and fabrication of 3d objects. 3) System must be compatible with a 230 volt, 50 Hz power supply. 4) Functional testing and comprehensive training via online mode with support escalation email id to be shared. 		

Note: The Quotation should reach the undersigned on or before 5 Pm on 10th July 2022.

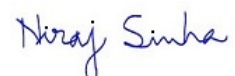
Indenter Details:

Dr. Niraj Sinha
Associate Professor
Department of Mechanical Engineering
Indian Institute of Technology, Kanpur-208016

Terms and Conditions:

1. Maximum discount should be offered.
2. Quotations should be valid for minimum of 90 days
3. Delivery period will be 6-8 weeks after receipt of the purchase order.
4. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
5. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
6. Manufacturer authorization certificate from the principal company is required if you are a local supplier
7. Include Preparatory Item Certificate if applicable.
8. The Institute reserves the right of accepting or rejecting any quotation or bid without assigning any reason thereof.
9. All prices should be mentioned F.O.B/CIP/CIF New Delhi or Destination at IIT Kanpur.
10. Payment Terms: 100% after supply of the materials.
11. Bidder must clearly mention their contact details with address and email ID.

Signature



Dr. Niraj Sinha