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Title - Sujet Addictive manufacturing Printer Addictive manufacturing Printer (3D Printer)	
Solicitation No. - N° de l'invitation W6511-21A030/A	Amendment No. - N° modif. 001
Client Reference No. - N° de référence du client W6511-21-A030	Date 2021-11-22
GETS Reference No. - N° de référence de SEAG PW-SMTB-309-16313	
File No. - N° de dossier MTB-1-44067 (309)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Standard Time EST on - le 2021-12-06 Heure Normale de l'Est HNE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Paradis, Mary	Buyer Id - Id de l'acheteur mtb309
Telephone No. - N° de téléphone (514) 702-8173 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: MINISTERE DE LA DEFENSE NATIONALE BFC Bagotville 2e Escadre Bagotville -2 ESM-B Alouette, Quebec G0V 1A0	

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Instructions: See Herein

Instructions: Voir aux présentes

Issuing Office - Bureau de distribution

Travaux publics et Services gouvernementaux Canada
Place Bonaventure, portail Sud-Oue
800, rue de La Gauchetière Ouest
7e étage, suite 7300
Montréal
Québec
H5A 1L6

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

ANNEXE 'A' -VERSION 2
STATEMENT OF REQUIREMENTS
ADDICTIVE MANUFACTURING PRINTER (3D PRINTER)
DEPARTMENT OF NATIONAL DEFENCE (DND)

1.0 SCOPE

1.1 Scope – 2 Mission Support Squadron (2 MSS) requires to purchase two additive manufacturing printers bundles (3D printers).

Context - As part of the Air Force Expeditionary Capability (AFEC) Program, 2 MSS is conducting an additive manufacturing (AM) trial plan. The aim of the trial is to increase Royal Canadian Air Force (RCAF) knowledge of AM technology for deployed operations in order to assess its benefits for Air Task Force support and to inform the development of a nascent RCAF expeditionary Mission Support Element AM capability.

2.0 RELEVANT DOCUMENTS

2.1 S.O.

3.0 REQUIREMENTS

3.1 Technical requirements – Each of the two 3D printer's bundles will have to come with automatic material handling stations and air manager systems, plus will have to meet the following criteria:

PRINTING	Print Technology	Fused filament fabrication (FFF)
	Compatible filament diameter	Minimum 2.5 – 3.0 mm
	Feeder type	Dual-gearred feeder, reinforced for composite material
	Build plate	Build plate with advanced active auto-leveling.
	Print head	Dual extrusion print head with an auto-nozzle lifting system and swappable print cores (Individual Dual Extrusion (IDEX) is acceptable)
LAYER RESOLUTION	Various size of nozzle to accommodate printing of the following precision range	600-20 micron
DIMENSIONS	Printer outside dimensions	Minimum 15 x 20 x 30" Maximum 20 x 25 x 35"
	Build volume	Minimum 12 x 9 x 11" Maximum 15 x 10 x 12"
POWER	Max Power Output	500 W
	Voltage	120/240 (North American Standard)
MATERIAL STATION	Capacity	Six material spools
	Environment control	Controlled humidity level
	Other functions	Automatic material switching

AIR MANAGER SYSTEM	Main Features	Composite material compatible Compatible with third-party filaments
		Provides physical barrier to prevent reaching inside the printer Equipped with EPA filter capable of filtering 95% of all ultrafine particles Smart monitoring of filter usage Optimized to coupled printer.
	Air refresh rate	Between 1 – 50 m ³ /h
	Air manager system with EPA filter removing	Operating Sound < 50 dB

3.2 Accessories and spare parts:

3.2.1 Liste of desirable technical criteria

- Each of the two bundles will consist of all associated tools required to service and operate the 3D Printer plus the following spare parts are required and equivalent parts will be acceptable:
 - (8) Print Cores: (6) Standard print core (two of each size: 0.25mm, 0.4mm and 0.8mm), (2) 0.4mm print cores compatible with PVA dissolvable support.
 - (1) Glass Build Plate
 - (2) Printer Filament, 750gr. Tough PLA (1 x black and 1 x red)
 - (1) Printer Filament, 750gr. PVA support material
 - (2) Printer Filament, 750gr. Nylon (1 x black and 1 x white)
 - (1) Printer Filament, 750gr. CPE + (black)
 - **8 (25) adhesive sheets can be replaced by 5 x PEI sheets**
 - All associated tools: USB key, glue stick, grease, hex wrenches and cables

3.3 Software and network compatibility:

- Supplied with free software : Print preparation and printer manager;
- Supported OS : MacOS, Windows, and Linus;
- Plugin integration : SolidWorks and Autodesk Inventor;
- Supported file types :
 - Print preparation software : STL, OBJ, X3D, 3MF, BMP, GIF, JPG and PNG;
 - Printer: G, GCODE, GCODE.gz and UFP.
- File transfer: Wi-Fi, Ethernet and USB.

3.4 Safety and security Requirements - The proposed equipment must comply with the following requirements:

- Products certified : CE, FCC, VPAT, RoHA, REACH, CB, BIS, KC, PSE, RCM, SRRC, MIC, NCC and Safe unattended professional use;

3.5 Specific Requirements and Customer Support - The proposed equipment will comply with the following service requirements and warranties:

- a. The purchase includes the delivery and distance minimum 8 hours training on setup and basic operations and care of the printer for (4) military members. Including software familiarisation, best

Solicitation No. - N° de l'invitation
W6512-21A030
Client Ref. No. - N° de réf. du client
W6512-21A030

Amd. No. - N° de la modif.
001
File No. - N° du dossier
MTA 1- 44067

Buyer ID - Id de l'acheteur
MTB309
CCC No./N° CCC - FMS No./N° VME

practices and test print. Related documentation will be provided. Lifetime technical support is offered by a seasoned and experienced team of the supplier;

- b. The manufacturer will provide a minimum warranty of 12 months (for parts and labor); and
- c. 36 months extended Service plan is required, covering parts and labor.

ANNEX "E"- VERSION 2

POINT RATED MANDATORY TECHNICAL CRITERIA

POINT RATED EVALUATION CRITERIA

1. Technical proposals will be assessed for a total of ***100 points** based on the grid below. The minimum rating required for each point-rated criteria is **1 Point**.
2. At bid closing time, the bidder must comply with the following point-rated criteria at the table 1 below and provide the necessary documentation to support compliance. Any proposal that fails to obtain the minimum overall passing mark will be declared non-responsive and will be given no further consideration.

Each criteria must be addressed separately.

TABLE 1

POINT RATED CRITERIA		EVALUATION SCALE	MINIMUM Overall Score Required	MAXIMUM Overall Score
			6 points	10 points
List of desirable technical criteria				
Each of the two bundles will consist of all associated tools required to service and operate the 3D Printer plus the following spare parts are required and equivalent parts will be acceptable.				
1	(8) Print Cores: (6) Standard print core (two of each size: 0.25mm, 0.4mm and 0.8mm), (2) 0.4mm print cores compatible with PVA dissolvable support.	3 points		
2	(1) Glass Build Plate	1 point		
3	(2) Printer Filament, 750gr. Tough PLA (1 x black and 1 x red)	1 point		
4	1) Printer Filament, 750gr. PVA support material	1 point		
5	(2) Printer Filament, 750gr. Nylon (1 x black and 1 x white)	1 point		
6	(1) Printer Filament, 750gr. CPE + (black)	1 point		

N° de l'invitation - Sollicitation No.
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Id de l'acheteur - Buyer ID
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N° CCC / CCC No./ N° VME - FMS

POINT RATED CRITERIA		EVALUATION SCALE	MINIMUM Overall Score Required	MAXIMUM Overall Score
7	8 (25) adhesive sheets can be replaced by 5 x PEI sheets	1 point		
8	All associated tools: USB key, glue stick, grease, hex wrenches and cables	1 point		
		* Total points :		

*The total points will be prorated to 100 points

All the terms and conditions remain the same.

THE FOLLOWING ARE THE QUESTIONS THAT WERE SENT BY SUPPLIERS, AND THE ANSWERS THAT WE HAVE PROVIDED:

Question no. 1

Do you want me to quote an additional spool of these or are the 2 free with the machine the ones you are wanting?

Response no. 1

No, the 2 included with the machine is fine.

Question no. 2

The same answer is required about the extra nozzles, etc

Response no. 2

Not additional, but total. If it is already included with it, it works for us no need for extra.

Question no. 3

There is now a promotion which offers a free 2nd year of warranty. Section 3.5.c is asking for 3 years. Would you accept the 2?

Response no. 3

We would like to keep the extended warranty to 3 years.

Question no. 4

1. Is it necessary for the dual extruder to be one solid block, or can the dual extrusion system be independent (IDEX)?
2. Glass build plates can be added to any FDM 3D printer and we can provide high quality borosilicate plates for our printer selection. Is this acceptable?

Response no.4

1. Individual Dual Extrusion (IDEX) is acceptable.
2. As long as printing plates are provided as identified in the requirements, borosilicate plates are acceptable.

Question no. 5

We have a suitable product to submit for this tender that meets all technical requirements. However, since this is a point based tender, there are a few desired requirements that we cannot meet. The TFM coupler is not meant for the printer we are proposing. Also, since they come with a glass build plate, they don't require adhesive sheets. We can still supply PEI sheets instead.

Response no. 5

The glass build plate is still required.
We can do without a TFM coupler.
The 8 (25) adhesive sheets can be replaced with 5 x PEI sheets.

All other terms and conditions remain the same.