



**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
**Bid Receiving Public Works and Government  
Services Canada/Réception des soumissions  
Travaux publics et Services gouvernementaux  
Canada**  
Place Bonaventure, South-East  
Portal, 7th Floor  
800 de la Gauchetière Street West  
Montréal  
Québec  
H5A 1L6

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

<b>Title - Sujet</b> Manipulator Universal Robot	
<b>Solicitation No. - N° de l'invitation</b> 9F064-160263/A	<b>Date</b> 2016-10-07
<b>Client Reference No. - N° de référence du client</b> 9F064-160263	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$MTD-425-14074	
<b>File No. - N° de dossier</b> MTD-6-39172 (425)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2016-11-22</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Heure Avancée de l'Est HAE	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Hamel, Jonathan	<b>Buyer Id - Id de l'acheteur</b> mtd425
<b>Telephone No. - N° de téléphone</b> (514) 926-6670 ( )	<b>FAX No. - N° de FAX</b> (514) 496-3822
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> AGENCE SPATIALE CANADIENNE 9F064-Développement de l'ingénierie 6767 ROUTE DE L AEROPORT ST HUBERT Québec J3Y8Y9 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Space Program Directorate/Direction des programmes spatiaux  
John H. chapman Space Centre  
Centre spatial John H. Chapman  
6767 Route de l'Aéroport  
6767, route de l'Aéroport  
Saint-Hubert  
Quebec  
J3Y 8Y9

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

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MTD-6-39172

Buyer ID - Id de l'acheteur  
MTD425  
CCC No./N° CCC - FMS No./N° VME

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Security Requirements**

There is no security requirement associated with this requirement

### **1.2 Requirement**

The requirement is detailed under Annex A of the resulting contract clauses.

### **1.3 Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

### **1.4 Trade Agreements**

The requirement is not subject to the provisions of any trade agreements.

### **1.5 Canadian Content**

The requirement is subject to a preference for Canadian goods and/or services.

## **PART 2 - BIDDER INSTRUCTIONS**

### **2.1 Standard Instructions, Clauses and Conditions**

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2016-04-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

#### **2.1.1 SACC Manual Clauses**

B1000T (2014-06-26), Condition of material - Bid

### **2.2 Submission of Bids**

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

### **2.3 Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than **ten (10)** calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

### **2.4 Applicable Laws**

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Quebec.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

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## **PART 3 - BID PREPARATION INSTRUCTIONS**

### **3.1 Bid Preparation Instructions**

Canada requests that Bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid (1 hard copies)  
Section II: Financial Bid (1 hard copies)  
Section III: Certifications (1 hard copies)

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, Bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

#### **Section I: Technical Bid**

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

#### **Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

##### **3.1.1 Electronic Payment of Invoices – Bid**

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex “D” Electronic Payment Instruments, to identify which ones are accepted.

If Annex “D” Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

##### **3.1.2 Exchange Rate Fluctuation**

[C3011T \(2013-11-06\)](#), Exchange Rate Fluctuation

### 3.1.3 SACC Manual Clauses

#### Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5.

## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.
- (c) The evaluation team will determine first if there are two or more bids with a valid Canadian Content certification. In that event, the evaluation process will be limited to the bids with the certification; otherwise, all bids will be evaluated. If some of the bids with a valid certification are declared non-responsive, or are withdrawn, and less than two responsive bids with a valid certification remain, the evaluation will continue among those bids with a valid certification. If all bids with a valid certification are subsequently declared non-responsive, or are withdrawn, then all the other bids received will be evaluated.

#### 4.1.1 Technical Evaluation

**It is mandatory to provide technical/ descriptive documents for all products that you are offering to allow the technical evaluation. Failure to comply will render your offer non responsive.**

**You have to demonstrate in your technical offer that all your products are compliant with every characteristics mentioned in Annex «C» attached.**

- 1- Compliance with the description of all requirements described in Annex «A» attached.

##### 4.1.1.1 Mandatory Technical Criteria

- A) The Bidders must complete and include with the proposal the Annex «C» attached.
- B) Submit technical/descriptive documentation with your proposal for all products that you are offering.

#### 4.1.2 Financial Evaluation

SACC Manual Clause [A0222T](#) (2014-06-26), Evaluation of Price

### 4.2 Basis of Selection

#### 4.2.1 Basis of selection – mandatory technical criteria

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

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## PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

### 5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

#### 5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the *Ineligibility and Suspension Policy* (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide with its bid the required documentation, as applicable, to be given further consideration in the procurement process.

#### 5.1.2 Additional Certifications Required with the Bid

##### 5.1.2.1 Canadian Content Certification

*SACC Manual* clause [A3050T](#) (2014-11-27) Canadian Content Definition

This procurement is conditionally limited to Canadian goods.

Subject to the evaluation procedures contained in the request for standing offers, offerors acknowledge that only offers with a certification that the good(s) offered are Canadian goods, as defined in clause [A3050T](#), may be considered.

Failure to provide this certification completed with the offer will result in the good(s) offered being treated as non-Canadian goods.

The Offeror certifies that:

( ) the good(s) offered are Canadian goods as defined in paragraph 1 of clause [A3050T](#).

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## 5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

### 5.2.1 Integrity Provisions – Required Documentation

In accordance with the *Ineligibility and Suspension Policy* (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

### 5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](#) website ([http://www.esdc.gc.ca/en/jobs/workplace/human\\_rights/employment\\_equity/federal\\_contractor\\_program.page?&\\_ga=1.229006812.1158694905.1413548969](http://www.esdc.gc.ca/en/jobs/workplace/human_rights/employment_equity/federal_contractor_program.page?&_ga=1.229006812.1158694905.1413548969)).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

## PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### 6.1 Security Requirements

There is no security requirement applicable to the Contract.

### 6.2 Requirement

The requirement is described in detail at Annex "A".

### 6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### 6.3.1 General Conditions

[2010A \(2016-04-04\)](#), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

### 6.4 Delivery Date

All deliverables must be received by **March 31<sup>st</sup> 2017 at the latest**.

Bidders are required to indicate their **best lead time after contract award**:

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### 6.5 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at Annex "A" of the Contract.

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## **6.6 Authorities**

### **6.6.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Jonathan Hamel  
Title: Procurement agent  
Public Works and Government Services Canada  
Space Program Directorate  
Address:  
Canadian Space Agency  
6767 Route de l'aéroport  
St-Hubert, Québec  
J3Y 8Y9

Telephone: 450-926-6670  
Facsimile: 514-496-3822  
E-mail address: jonathan.hamel@tpsgc-pwgsc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### **6.6.2 Project Authority**

The Project Authority for the Contract is (will be inserted at contract award):

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_

Telephone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### **6.6.3 Contractor's Representative**

(will be inserted at contract award)

## 6.7 Payment

### 6.7.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid **a firm price, as specified in Annex B** for a cost of \$ \_\_\_\_\_ (to be completed at contract award) Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### 6.7.2 Limitation of price

SACC Manual clause C6000C (2011-05-16) Limitation of Price

### 6.7.3 SACC Manual Clauses

SACC Manual clause H1000C (2008-05-12) Single payment  
SACC Manual clause C2000C (2007-11-30) Taxes, foreign-based contractor

## 6.8 Invoicing Instructions

Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Invoices must be distributed as follows:

The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

## 6.9 Certifications and Additional Information

### 6.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

### 6.9.2 SACC Manual Clauses

SACC Manual clause A3060T (2008-05-12) Canadian content certification

## 6.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_. **(Insert the name of the province or territory as specified by the Bidder in its bid, if applicable)**

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## 6.11 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions 2010A (2016-04-04), General Conditions - Goods (Medium Complexity);
- (c) Annex A, Requirement;
- (d) Annex B, Basis of payment;
- (e) Annex C, Basis of selection et mandatory criteria;
- (f) the Contractor's bid dated \_\_\_\_\_ (**insert date of bid**) (If the bid was clarified or amended, insert at the time of contract award: “, as clarified on \_\_\_\_\_” **or** “, as amended on \_\_\_\_\_” **and insert date(s) of clarification(s) or amendment(s)**)

## Annex A – Requirements

### Robotic manipulator arm to be integrated to a mobile platform (rover)

#### **1. Goal**

The CSA needs one (1) light robotic manipulator arm. This arm will be integrated to one or multiple mobile platforms (rovers) to allow contact instruments (e.g. microscope) to be deployed and positioned, as well as enable various manipulation tasks (e.g. sample capture) to be conducted. The arm must therefore be able to reach the ground workspace in front of the rover once it is installed on it. The resulting experimental setup will support various technological development paths related to space exploration.

#### **2. Mandatory technical specifications to be demonstrated by the proposal**

<b>Technical and specifications documents of the proposed product must be provided in order to support a proper technical evaluation. If not submitted, the proposal could be rejected.</b>	
<b>Criteria no.</b>	<b>Mandatory technical specifications to be demonstrated by the proposal</b>
1	The weight of the arm, its cables and attachment plate must not exceed 20 kg.
2	The weight of the electrical/electronic modules, cables and connectors that are not part of the arm itself must not exceed 10 kg. The weight of the enclosure holding the electrical and electronic modules can be omitted from this total mass.
3	The total volume occupied by the external electrical/electronic modules must not exceed 35 liters. The electronic modules packaging will be modified, if need be, to optimize mass and volume in order to properly integrate into the rover. If the default enclosure's volume is much bigger than the electronic modules alone, one can rather consider the actual modules' volume in order to fulfill this requirement.
4	The robotic manipulator arm reach must be at least 75 cm.
5	The robotic manipulator arm payload capacity must be at least 5 kg.
6	The robotic manipulator arm must have at least 6 degrees of freedom.
7	The arm's end-effector positioning repeatability must not exceed $\pm 0.5$ mm.
8	The average power consumption when the arm is operating must not exceed 200 watts.

9	The peak power consumption when the arm is operating must not exceed 250 watts.
10	The arm and its associated modules must be able to operate under ambient temperature ranging from 0°C up to 40°C.
11	The arm must have an Ingress Protection (IP) rating of at least IP-54 or equivalent. See attached : IP Code, International Protection Marking standard from the <b>International Electrotechnical Commission (IEC-60529)</b>
12	The arm must be electrically powered.
13	If the arm's default power supply is AC (Alternating Current), the system must allow changing the AC supply module by an appropriate DC (Direct Current) supply module. For efficiency and mass considerations, using an inverter to generate AC in order to feed the default AC supply as is will not be an option.

### **3. Other mandatory technical specifications**

1. The arm's base/interface plate must allow both vertical and horizontal mounting in order to accommodate various rover configurations.
2. Once installed on a rover, the robotic manipulator arm must be able to operate under variable tilt angles up to 35° from the horizontal plane.
3. The robotic manipulator arm must provide a communication interface that enables sending it commands and getting its telemetry via an independent computer or micro-controller defined by CSA. The published software interface must include an API (Application Programming Interface) and/or a clear and well documented communication protocol. As such, an Ethernet interface is desirable, but alternative interfaces could also be acceptable.
4. The arm and its associated external electrical/electronic modules will be integrated to one or many rovers. For such integration to be successful, the mechanical and electrical architectures of the proposed system must therefore enable modifications to be made by a technically qualified team from CSA. As such, sufficiently detailed information regarding the hardware architecture must be readily available in order to avoid, or at least minimize, the inverse engineering required to conduct the integration.
5. If the arm comes with an end-effector (e.g. a gripper), this end-effector must be easily removable such that CSA can replace it with its own set of instruments.

### **4. Delivery address**

Agence Spatiale Canadienne  
6767, Route de l'Aéroport,  
St-Hubert, Québec  
J3Y 8Y9

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## Annex B – Basis of payment

<u>Description</u>	<u>Quantity</u>	<u>Unit price</u>
Light robotic manipulator arm according to the specifications stated at Annex A. <b>*All shipping and handling fee included</b>	1	_____ \$ <b>*All taxes excluded</b>

## Annex C – BASIS OF SELECTION AND MANDATORY CRITERIA TO BE DEMONSTRATED (ASSESSMENT TABLE)

Criteria no.	Mandatory technical specifications to be demonstrated by the proposal	Compliance		Criteria sourced from Annex A. Specify where are the mandatory specifications in the bid documentation and/or in the technical factsheets provided. Indicate whether those requirements are met or not.
		yes	no	
1	The weight of the arm, its cables and attachment plate must not exceed 20 kg.			
2	The weight of the electrical/electronic modules, cables and connectors that are not part of the arm itself must not exceed 10 kg. The weight of the enclosure holding the electrical and electronic modules can be omitted from this total mass.			
3	The total volume occupied by the external electrical/electronic modules must not exceed 35 liters. The electronic modules packaging will be modified, if need be, to optimize mass and volume in order to properly integrate into the rover. If the default enclosure's volume is much bigger than the electronic modules alone, one can rather consider the actual modules' volume in order to fulfill this requirement.			
4	The robotic manipulator arm reach must be at least 75 cm.			
5	The robotic manipulator arm payload capacity must be at least 5 kg.			

Criteria no.	Mandatory technical specifications to be demonstrated by the proposal	Compliance		Criteria sourced from Annex A. Specify where are the mandatory specifications in the bid documentation and/or in the technical factsheets provided. Indicate whether those requirements are met or not.
		yes	no	
6	The robotic manipulator arm must have at least 6 degrees of freedom.			
7	The arm's end-effector positioning repeatability must not exceed $\pm 0.5$ mm.			
8	The average power consumption when the arm is operating must not exceed 200 watts.			
9	The peak power consumption when the arm is operating must not exceed 250 watts.			
10	The arm and its associated modules must be able to operate under ambient temperature ranging from 0°C up to 40°C.			
11	The arm must have an Ingress Protection (IP) rating of at least IP-54 or equivalent. See attached: IP Code, International Protection Marking standard from the <b>International Electrotechnical Commission (IEC-60529)</b> .			
12	The arm must be electrically powered.			

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Criteria no.	Mandatory technical specifications to be demonstrated by the proposal	Compliance		Criteria sourced from Annex A. Specify where are the mandatory specifications in the bid documentation and/or in the technical factsheets provided. Indicate whether those requirements are met or not.
		yes	no	
13	If the arm's default power supply is AC (Alternating Current), the system must allow changing the AC supply module by an appropriate DC (Direct Current) supply module. For efficiency and mass considerations, using an inverter to generate AC in order to feed the default AC supply as is will not be an option.			

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## **ANNEX D to PART 3 OF THE BID SOLICITATION**

### **ELECTRONIC PAYMENT INSTRUMENTS**

The Bidder accepts any of the following Electronic Payment Instrument(s):

- VISA Acquisition Card;
- MasterCard Acquisition Card;
- Direct Deposit (Domestic and International);
- Electronic Data Interchange (EDI);
- Wire Transfer (International Only);
- Large Value Transfer System (LVTS) (Over \$25M)

