

# University of Northern Iowa

Q9413

## SECTION I

### INFORMATION AND INSTRUCTIONS

1.0 **Introduction** The University of Northern Iowa is seeking quotations for purchase and delivery of a Robotic Shelling System for Additively Manufactured Investment Casting Shells.

All questions and comments in reference to this Request for Proposal must be directed to:

Jon Westhoff  
Purchasing Agent  
103 Gilchrist Hall  
University of Northern Iowa  
Cedar Falls, IA 50614-0008  
Telephone 319-273-6246  
[Jon.westhoff@uni.edu](mailto:Jon.westhoff@uni.edu) or [purch@uni.edu](mailto:purch@uni.edu)

1.1 **Parties to the Contract** Bidders must identify all parties who will be involved in the purchase. By submitting a Proposal, the bidder warrants that all parties to the contract have received a copy of this RFP and that the bidders' response is acceptable to these parties.

1.2 Each Company, by submitting a proposal, acknowledges its representative has:

1.2.1 Read and completely understood the proposed Purchase Documents contained in this RFP. The Purchase Documents shall consist of this RFP (Information and Instructions, Terms and Conditions of the Purchase, Specifications, Proposal Content, Form of Bid, and all exhibits and attachments), any subsequent Addenda issued by UNI, Bidders response to this RFP, and any agreement that results from this RFP.

1.2.2 Based their proposal upon the requirements described in the proposed Purchase Documents.

1.3 **Receipt of Proposal**

1.3.1 **Proposals must be received in Procurement Services, 103 Gilchrist Hall, Cedar Falls, Iowa 50614-0008, by 3:00 P.M., central time, on September 13, 2019.** Any Proposal received after the time specified may not be considered and may be returned unopened to the sender as non-responsive. One (1) original and one (1) electronic copy of the bid are to be submitted to UNI Purchasing Services in response to this RFP.

1.3.2 UNI reserves the right to accept or reject any or all Proposals and to waive any irregularities, technicalities, or informalities in proposals if such waiver does not substantially change the offer or provide a competitive advantage to any Company. UNI reserves the right to request additional documents or proposal clarifications after the due date and time for Proposal submission.

1.3.3 Company's legally authorized representative shall sign the proposal. The official name, address, telephone, and fax number and e-mail addresses are to be stated on the Proposal form.

1.3.4 The laws of the State of Iowa require the contents of all Proposals be placed in the public domain and be open to inspection by interested parties. Trade secrets or proprietary information that are recognized as such and are protected by law may be withheld, if clearly identified as such in the Proposal. Proposals marked entirely confidential or proprietary may be rejected. Pricing information and other offers cannot be considered proprietary information.

**Failure to list all proprietary sections of the submitted Proposal in the space provided, shall relieve UNI personnel from any responsibility, should such information be viewed by the public, a competitor, or be in any way accidentally released.**

1.3.5 All opened Proposals become the property of UNI and will not be returned to the offeror.

1.3.6 Prior to the date and time designated for receipt of Proposals, Proposals submitted early shall be withdrawn only by written notice to UNI. Such notice shall be received by UNI prior to the designated date and time for receipt of Proposals.

1.3.7 Withdrawn Proposals may be resubmitted up to the time designated for receipt of Proposals provided that they are then fully in conformance with these Proposal Instructions and Conditions.

1.3.8 No Proposal may be modified or withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receipt of Proposals.

1.3.9 All erasures or corrections are to be initialed by the person(s) signing the Proposal.

1.3.10 Failure to comply with the requirements of this RFP or evidence of unfair bidding procedures may be cause for rejection of the Proposal. Failure to supply information requested may also be cause for rejection of the RFP as being non-responsive.

1.3.11 This Request for Proposal does not commit UNI to make an award, nor will UNI pay any necessary studies for the preparation of Proposals, or any travel or personnel expenses associated with trips to UNI.

1.4 Addenda Any and all interpretations, corrections, revisions, and amendments shall be issued by UNI Purchasing Services to all known holders of the Bid Documents in the form of written addenda.

1.5 Proposal Obligations The Contractual Agreement (Agreement) shall incorporate the selected Company's Proposal, including any clarification to the Proposal(s) requested by UNI and submitted by selected Company, except as amended by mutual agreement. The Agreement shall form the contractual obligation of UNI and the selected Company.

1.6 Exceptions to Purchase Documents Company shall clearly state in the submitted Proposal any exceptions to, or deviations from the Specifications, and any exceptions to the provisions, terms, and conditions of this RFP included in Section I and terms and conditions of the potential agreement described in Section II. Such exceptions or deviations will be considered in evaluating the Proposals. Any exceptions should be noted on Attachment A and returned with the submitted Proposal. Companies are cautioned that exceptions taken to this RFP may cause their Proposal to be rejected at the sole discretion of UNI. Exceptions not stated on Attachment A will have no effect.

1.7 Qualification of Company UNI shall make such investigations as deemed necessary to determine the ability of Company to provide the expected goods or services. UNI reserves the right to reject any bid if the evidence submitted by, or investigation of, such Company fails to satisfy UNI, in its sole opinion, that said Company is properly qualified to carry out the obligations specified herein.

1.8 Issuing Office The Purchasing Agent listed herein is to be the **SOLE** point of contact concerning this RFP. Offerors shall not directly contact other personnel regarding matters concerning this RFP or to arrange meetings related to such.

## SECTION II TERMS AND CONDITIONS

### 2.1 Definitions

The University The University is the University of Northern Iowa (UNI). The term University means the University or the University's authorized representative.

The Company The Company is the person or organization to which the University will issue a contract purchase order, when/if award of this Request for Proposal is made. The term Company means the Company or the Company's authorized representative.

***The following conditions will apply to any contract awarded as a result of this RFP:***

2.2 Assignment This contract may not be assigned or transferred by either party without the prior written consent of the other party.

2.3 Non-appropriation of Funds Notwithstanding other provisions of any award resulting from this RFP, if funds anticipated for the fulfillment of this agreement are at any time not forthcoming or insufficient, either through the failure of the Iowa Legislature or the federal government to provide funds or the program under which funds were provided is altered, then UNI shall have the right to terminate this agreement without penalty by giving not less than thirty (30) days written notice documenting the lack of funding or program change.

2.4 Immunity from Liability Every person who is a party to this Agreement is hereby notified and agrees that UNI, and its agents, successors, and assigns are immune from liability and suit for or from Company's activities involving third parties and arising from this Agreement.

2.5 Indemnification To the fullest extent permitted by law, Company shall defend, indemnify, and hold harmless UNI, its agents, successors, and assigns, the Board of Regents, State of Iowa, and the State of Iowa from and against all claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from the performance and compliance with the terms and obligations of the Agreement, provided that any such claim, damage, loss, or expense (1) is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, including the loss of use resulting there from, and (2) is caused in whole or in part by any negligent act or omission of Company, its subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person.

In any and all claims against UNI, its agents, successors, and assigns, the Board of Regents, State of Iowa, and the State of Iowa by any employee of Company, and subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any definition or boundary on the amount or type of damages, compensation or benefits payable by or for Company or any subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

2.6 Code of Fair Practice Company shall not discriminate against any employee or applicant for employment because of race, color, religion, sexual orientation, gender identification, marital status, national origin, sex, age, or physical or mental disability, or status as a US veteran. Company shall take affirmative action to ensure that applicants are employed and that the employees are treated during employment without regard to their race, creed, color, religion, national origin, sex, age, or physical or mental disability or status as a Vietnam-era/disabled veteran, except where it relates to a bona fide occupational qualification. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or terminations; rates of pay or other forms of compensation; and selection for training, including apprenticeship. If applicable to this agreement, Company shall comply with the provisions of Federal Executive Order 11246 as amended by Executive Order 11375. In the event of Company's non-compliance with this section 2.7 or with any of the aforesaid regulations, this contract may be canceled, terminated or

suspended in whole or in part, without penalty to the Board of Regents, State of Iowa, the University, or the State of Iowa, and Company may be declared ineligible for further contracts with Board of Regents, State of Iowa, institutions.

2.7 Subcontractors Company is specifically advised that any person, firm, or other party to whom it awards a subcontract under this Agreement must be approved in advance and be acceptable to UNI. The Company is responsible for all acts of its Subcontractors, as well as the Subcontractors' performance of delegated duties. Company shall be solely responsible for payment to all subcontractors or secondary suppliers that the Company may engage for the completion of any contractual agreement with UNI.

2.8 Insurance-

2.8.1 Company shall purchase and maintain, throughout the term of this Agreement, comprehensive general liability insurance, including contractual liability, slip and fall coverage and comprehensive automobile liability insurance to protect Company from all claims for bodily injury, including accidental death, personal injury, and property damage arising from operations under this Agreement, whether such operations be by Company, subcontractor, agent, or by anyone else directly or indirectly employed by Company. In addition, Company shall purchase and maintain errors and omissions insurance to protect UNI from any losses associated with Company's acts. All statutory insurance requirements, including worker's compensation, shall be met. All required insurance policies shall be issued by reputable insurance companies duly authorized to engage in the insurance business in the State of Iowa. Limits of such insurance shall be as stated below:

Worker's Compensation Statutory  
Comprehensive General Liability \$1,000,000 each occurrence\*  
Commercial Auto Liability \$1,000,000 each occurrence\*  
Errors and Omissions \$1,000,000 each occurrence\*  
\*\$2 Million aggregate

2.8.2 The State of Iowa, the University of Northern Iowa, and the Board of Regents, State of Iowa, shall be named on such policies as additional insureds. Failure to maintain insurance coverage throughout the life of any resulting contract, consistent with the provisions of this Section, shall be considered a breach of contract. As evidence of the above, the Company will submit certificates of insurance on an annual basis. The certificates shall also provide that should the policy be cancelled or materially changed, thirty (30) day written notice prior to the effective date for the change or cancellation shall be given directly to UNI.

2.8.3 Company agrees to waive all rights of subrogation against UNI, the State of Iowa, the Board of Regents, State of Iowa, the Regent institutions, their employees and agents for any claim filed against Company or other firms associated with the Agreement.

2.9 Laws Terms and provisions of this Agreement shall be construed in accordance with the laws of the State of Iowa, and any and all litigation or actions commenced in connection with this Agreement shall be instituted in the appropriate courts in the State of Iowa.

2.10 Advertising Company shall not use or reference the name University of Northern Iowa as a part of any commercial advertising without prior written approval of UNI's central administration and its Trademark and Licensing Office.

2.11 Taxes UNI is exempt from State and Local Sales Tax. A Tax Exemption Certificate will be furnished upon request.

2.12 Termination

2.12.1 If Company is adjudged bankrupt or makes a general assignment for the benefit of creditors, if a receiver is appointed on account of Company's insolvency, if Company repeatedly refuses or fails to supply enough employees, management staff, or equipment to adequately provide timely delivery or services for UNI, or if Company is otherwise guilty of a substantial violation of the Purchase Documents, UNI may terminate the Agreement after giving Company a minimum thirty (30) days written notice, without penalty to UNI.

2.12.2 In any case where Company has failed to provide items or services or has provided nonconforming items or services, UNI shall provide a Cure Notice. If after notice Company continues to be in default, UNI may procure services from another source and terminate the Agreement, without penalty to UNI.

2.13 Severability of the Agreement In the event any one or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision, but shall be construed as if such invalid or unenforceable provision had never been contained. Further, in the event that any provision shall be held to be unenforceable by virtue of its scope, but may be made enforceable by a limitation thereof, such provision shall be deemed to be amended to the minimum extent necessary to render it enforceable under the laws of the jurisdiction in which enforcement is sought.

2.14 Audits- Throughout the life of the contract, the University reserves the right to conduct random audits of Company's invoices, inventory records and financial statements to monitor correct pricing of items.

2.15 Open Competition

2.15.1 **Where, in these contract documents, reference is made to materials, trade names, catalog numbers or articles of certain manufacture, it is done for the purpose of establishing a basis of comparative quality, type or style and not for the purpose of limiting competition.** It shall be understood that such method of description is not intended to exclude other items, processes, similar designs, or kinds of materials, but is intended merely as a means of establishing a standard of comparison. Other manufacturing processes may be used, if, in the opinion of UNI, they are acceptable in serviceability, durability, quality, functional capabilities and design.

2.15.2 UNI reserves the right to reject any substitute article or material, and/or the associated bid which, in UNI's opinion, does not meet the standard of quality established by such a reference in the contract documents.

2.15.3 Companies offering other than the items specified shall submit, with their bid, catalog cuts, brochures, and detailed specifications covering the items on which they are bidding. In addition, include samples of paint, laminate chair frame finishes and standard fabrics. **Any deviation from the contract documents contained in this bid shall be noted by the company on the Bid Compliance Form. (See Attachment A.) Where the company proposes to substitute an article or material, the company shall be prepared to submit samples, upon request, for UNI's inspection.** The cost of transportation, both ways, of such samples shall be borne by the company.

2.15.4 The company is expected to comply fully with the contract documents in this bid solicitation. In the event the company's materials or equipment do not conform, and those deviations have not been stated on the Bid Compliance Form, the company will be responsible for furnishing materials and equipment, which fully conform at no change in their bid price.

2.16 Guarantee- In filling this order, Company warrants and guarantees to University that the articles are in compliance with sections 5 and 12 of the Federal Trade Commission Act; the Fair Packaging and Labeling Act; the Federal Food, Drug and Cosmetic Act; the Consumer Product Safety Act; the Federal Insecticide, Fungicide and Rodenticide Act; the Federal Hazards and Substance Act; the Fair Labor Standards Act; the Wool Products Labeling Act; the Flammable Fabrics Act; the Occupational Safety and Health Act; and the Federal Anti-Kickback Enforcement Act; Debarment and Suspension policies (E.O.s 1249 and 12689); Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333); Rights to Inventions Made Under a Contract or Agreement in accordance with 37 CFR part 401; Byrd Anti-Lobbying Amendment (31 U.S.C. 1352) Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended; Davis-Bacon Act, as amended (40 U.S.C. 276a to a-7); Buy American Act.

2.17 Export Control- Company acknowledges that a foreign national(s) may use the device/technology/and or data you propose, at the University. Company shall comply with all U.S. export controls laws and regulations, including but not limited to the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export

Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this Agreement. In the absence of available license exemptions/exceptions, Company shall be responsible for obtaining the appropriate licenses or other authorizations, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance. Company shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions. Company shall be responsible for obtaining the appropriate licenses or other authorizations, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance. Company shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions. Prior to disclosing or transferring to University any hardware, technical data, software or product utilizing any such data which is subject to export controls under federal law, Company shall notify the University in writing of the nature and extent of the export control. The University shall have the right to decline any such technical data or product utilizing such data. In the event Company sends any such technical data or product that is subject to export control, without notice of the applicability of such export control, the University has the right to immediately terminate the Agreement.

2.18 Energy Star Purchases- Whenever possible, UNI will purchase equipment that is rated energy efficient by this joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy.

2.19 Hazardous Material- All packaging, transportation and handling of hazardous materials shall be in accordance with applicable federal and state regulations including, but not limited to, the Material Safety Data Sheet provision of O.S.H.A. Hazard Communication Standard 29 CFR 1910.1200, and Iowa Administrative Code, Section 530.

2.20 Clean Air and Water Certification – Company certifies by filling this order that its facility is not on the Environmental Protection Agency (EPA) List of Violating Facilities. Company will immediately notify University Purchasing Services of the receipt of any communication indicating that any company’s facilities are under consideration to be listed on the EPA List of Violating Facilities.

2.21 Federal Subcontract – If this agreement constitutes a sub agreement under a prime contract with a federal agency, the terms and conditions of the prime contract shall prevail.

2.22 Vendor Code of Conduct - University of Northern Iowa is committed to socially and environmentally responsible purchasing consistent with the values in our strategic plan. The University of Northern Iowa expects high quality in the products, services and business practices of all of its business partners. This commitment enjoys broad support on campus.

2.23 Software Accessibility – Software solutions provided to the University of Northern Iowa shall be compliant with the standards of Federal statute Section 508 Amendment to the Rehabilitation Act of 1973 and [W3C.org](http://W3C.org) Web Content Accessibility Guidelines (WCAG 2.0 LevelAA) for accessibility for persons with disabilities for the minimum level of accessibility. Please review the links provided for specifics related to these referred to standards and guidelines. WCAG guidelines [www.w3.org/TR/WCAG20/](http://www.w3.org/TR/WCAG20/) and Section 508 [www.section508.gov](http://www.section508.gov) . The University reserves the right to request that the Supplier provide audit and/or test results that document the software’s compliance and the testing methodology utilized.

If software is included in this quotation, please describe how the software meets the accessibility requirements included with Section 508 and WCAG 2.0 Level AA.

**SECTION III**  
**EQUIPMENT SPECIFICATIONS**

The University of Northern Iowa is seeking quotations for purchase and delivery of a Robotic Shelling System for Additively Manufactured Investment Casting Shells using the following specifications or equivalent (see section 2.15). ANY exception to any specifications must be noted on Attachment A or bid will not be considered.

3.1 Specifications

- 3.1.1 The University of Northern Iowa Additive Manufacturing Center plans to purchase and install a robotic shelling system for additively manufactured investment casting shells. The Investment casting patterns will be produced from a combination of SLA, printed wax, PLA and PMMA printers. The system will be a demonstration site for automation of the investment casting process and serve as a base for further automation and robotic handling and processing of parts. The line will be able to coat and dry a minimum of 25 trees with an average of six coats per 24 hours unattended.
- 3.1.2 Trees will be assembled manually and attached to a mounting carrier. The tree carrier will be placed on a loading station which the robotic shelling system can access. The system should be able to store multiple profiles that specify the number and type of coats, number and type of aggregate backup, and required drying time. The system should be able to track the trees progress through the drying process.
- 3.1.3 A load station that is manually loaded with a capacity of at least three pattern trees.
- 3.1.4 A prewash station will not be required but a space for a future installation would be preferred.
- 3.1.5 A etch station will not be required but a space for a future installation would be preferred.
- 3.1.6 A wetting solution station will be required.
- 3.1.7 Three slurry tanks will be required. Tank size should be a minimum of 30 inches in diameter. Tank depth should be a minimum of 30 inches. Preference will be given to systems including automatic slurry management systems and automatic slurry tank covers.
- 3.1.8 Three barrel sanders will be required with a minimum diameter of 1m (39) inches. Preference will be given for automatic sand filling.
- 3.1.9 A dust collection system for barrel sanders should be included.
- 3.1.10 The maximum weight of a fully coated tree will be 125kg with a diameter of 500mm and height of 500mm
- 3.1.11 The drying time per dip cycle should be not more than 60 minutes based on the tree size specified above. Preference will be given to systems that include infra-red heating, directed fans and sensors to maintain shell temperatures.
- 3.1.12 The system should include a minimum of one six axis industrial rated robot to handle shell trees with a minimum load capacity of 130 kg (286 lbs).
- 3.1.13 The system should be able to be programed off line.

3.1.14 The system must fit into a space approximately 17 feet wide by 40 feet long with a maximum ceiling height of 16 feet and 14 feet unobstructed in any area.

3.1.15 The total electrical requirements will need to be under 500KVA.

### 3.2 Delivery & Installation

3.2.1 Shipping to the Additive Manufacturing Center at 360 Westfield Ave. Waterloo, IA should be included and listed separately in the quotation.

3.2.2 Installation costs should be included and listed separately. Electrical service and compressed air to the equipment will be supplied by the purchaser.

### 3.3 Dewaxing System

3.3.1 A dewaxing (pattern removal) system with applicable capacity if available should be included and listed separately.