



# SPECIFICATIONS

FOR

## Mechatronic Laboratory Equipment

Lake Land College District Number 517  
Mattoon, Illinois 61938

PROJECT NO. 2023-010

Bid Date November 6, 2023

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ADVERTISEMENT FOR BIDS

Advertisement for Bids  
Bids: November 6, 2023  
LAKE LAND COLLEGE DISTRICT #517  
MATTOON, ILLINOIS  
Project No. 2023-010

The Lake Land College District Number 517 Board of Trustees will receive sealed bids for Mechatronic Laboratory Equipment.

Bids will be received until 1:00 PM Central Standard Time on Monday, November 6, 2023 in the office of the Vice President for Business Services, in the Board and Administration Center on the campus of Lake Land College, 5001 Lake Land Boulevard, Mattoon, IL. Bids received after this time will not be accepted. Bids will be opened and publicly read immediately after the specified closing time. All interested parties are invited to attend. Obtain bidding documents/requirements at the office of the Vice President for Business Services, phone (217) 234-5223, ccompton@lakelandcollege.edu.

The Board of Trustees reserves the right to waive irregularities and reject all bids or parts of bids.

Successful Bidders shall have the sole responsibility of complying with all aspects of existing Prevailing Wage Policies.

Gary Cadwell  
Chairperson - Lake Land College Board of Trustees

## SECTION 002113

### INSTRUCTIONS TO BIDDERS

#### PART 1 GENERAL

##### 1.01 DEFINITIONS

- A. Lake Land College Board of Trustees will be hereafter referred to in this Specification as “Owners” and all correspondence shall be addressed to: Office of the Vice President for Business Services, Lake Land College, 5001 Lake Land Blvd., Mattoon, IL 61938.
- B. A Bidder is a person or entity who submits a Bid to the Owner.
- C. Bidding Documents include the Advertisement for Bid, Instructions to Bidders, Bid Forms and supplements, and Addenda.
- D. Contract Documents include any Contract forms, Specifications, Drawings, Addenda, and modifications.
- E. An Agreement is a written agreement between the Owner and Contractor setting forth the obligations of the parties thereunder, including but not limited to the provision of the specified goods and materials, the basis of payment and the contract time.
- F. A Bid is a complete and properly signed proposal to provide the goods and services for the sums stipulated therein, submitted in accordance with the Bidding Documents.
- G. The Base Bid is the sum stated in the Bid for which the Bidder offers to provide the goods and services described in the Bidding Documents as the base, to which items may be added or from which items may be deleted for sums stated in Alternate Bids.
- H. An Alternate Bid is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding changes in the items, as described in the Bidding Documents, are executed.
- I. A Unit Price is an amount stated in the Bid as a price per unit of measurement for goods or services as described in the Bidding Documents or in the proposed Contract Documents.

##### 1.02 DOCUMENTS

- A. Copies of the Bidding Documents may be obtained at the Office of the Vice President for Business Services, 5001 Lake Land Boulevard, Mattoon, Illinois 61938, (217) 234-522, [ccompton@lakelandcollege.edu](mailto:ccompton@lakelandcollege.edu).

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### 1.03 EXAMINATION OF DOCUMENTS

- A. Bidders shall examine all documents. Failure to do so will not relieve a successful bidder of his obligation to provide all labor and materials necessary to carry out the provision of his contract for the sum stated thereon.
- B. Each Bidder, by submitting his bid represents that he has read and understands the bidding documents.

### 1.04 INTERPRETATIONS DURING BIDDING

- A. If any Bidder is in doubt as to the meaning of any part of the Bidding Documents, they may submit a written request to: Office of the Vice President for Business Services, 5001 Lake Land Boulevard, Mattoon, Illinois 61938, [ccompton@lakelandcollege.edu](mailto:ccompton@lakelandcollege.edu); for an interpretation of that part.
- B. Written requests for interpretations or clarifications must be made no later than five (5) working days prior to the Bid Date specified in the Advertisement for Bids.
- C. Any interpretation or change will be made only by Addenda numbered, dated, and issued by the Owner to each Bidder on record as having received a set of Bidding Documents and will be available for inspection wherever the Bidding Documents are kept available for that purpose. Lake Land College will not be responsible for any other explanations or interpretations of the Bidding Documents.

### 1.05 SUBSTITUTION OF PRODUCTS

- A. **MANUFACTURER'S TRADE NAMES ARE USED IN SPECIFICATIONS FOR THE EXPRESS PURPOSE OF ESTABLISHING A STANDARD OF QUALITY AND COORDINATION OF DESIGN, NOT FOR THE PURPOSE OF LIMITING COMPETITION.**
- B. All sizes of equipment must be as specified, and all pieces of equipment must include or have those features which are set forth in the specifications.
- C. No substitution will be considered unless a written request has been submitted with their bid.
- D. Bidders proposing substitutions in writing must submit detailed specifications with catalog cuts or manufacturer's literature, pictorially portraying that on which they are bidding for comparison to specified items by the Owner.
- E. Any additional explanation or statement which the Bidder wishes to make must be placed in the same envelope and attached to the proposal. Unless the Bidder so indicates, it is understood that the Bidder has bid in strict accordance with the specifications and drawings and has made no substitutions, modifications or additional stipulations.

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- F. Bids shall not contain any recapitulation of the work to be done and no oral, telephone, facsimile or email proposals or modifications will be considered.

### 1.06 QUALIFICATION OF BIDDERS

- A. Bidders may be disqualified and their Bids not considered for any of the following specific reasons:
  - 1. Reason to believe collusion exists among Bidders.
  - 2. The Bidder being interested in any litigation against the Owner.
  - 3. The Bidder being in arrears on any existing contract or having defaulted on a previous contract.
  - 4. Lack of competency as revealed by the financial statement, experience, and equipment, questionnaires, or qualification statement.
  - 5. Uncompleted work, which in the judgment of the Owner will prevent or hinder the prompt completion of additional work if awarded.
- B. If requested, a Bidder shall submit to the Owner a confidential Financial Statement in a sealed envelope.

### 1.07 PREPARATION OF BID:

- A. All bids must be submitted on the bid form contained herein. (see Section 004146) Oral, telephone, facsimile, electronic mail, or telegraph bids will not be accepted.
- B. The Bidder shall base the bid on materials complying with the Bidding Documents, and shall list all information where the bid form requires.
- C. The blank spaces in the bid form shall be filled in correctly with ink or typewritten. A bid form containing an alteration or erasure of any price contained in the bid which is used in determining the lowest responsible bid shall be rejected unless the alteration or erasure is corrected as herein provided:
  - 1. An alteration or erasure must be crossed out and the correction printed in ink or typewritten adjacent to the alteration or erasure.
  - 2. The person signing the bid must initial the correction in ink.
  - 3. In the event that any price used in determining the lowest responsible bid is expressed by the Bidder in both written and numerical form, the written representation shall govern in all cases.
- D. If the bid form includes alternates, each Bidder shall bid on each alternate. Failure to comply may be cause for rejection.

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- E. If an individual submits Bid, he or his duly authorized agent must sign his name. If a firm, association or partnership submits the Bid, the name, address and title of each member must be given, and an official or duly authorized agent must sign the Bid. Powers of attorney authorizing agents or others to sign Bids must be properly certified and must be in writing and submitted with the Bid.
- F. Bids from individuals or partnerships, if signed by an attorney-in-fact, shall have attached to the bid the power of attorney, evidencing the authority to sign the bid. If the bid is signed by any other legal entity, the authority of the person signing shall be attached to the bid.
- G. A W-9 Form is required with each bid submittal.

### 1.08 EXEMPTION FROM SALES TAX ON MATERIALS

- A. The Owner is exempted by Section Three of the Illinois Use Tax Act (Sec 3, House Bill 1610 approved July 31, 1961. IL. Rev. Stat. 1961, Chap. 120 Sec 439.3) from paying any of the taxes imposed by that act and sales to the Owner are exempt by Section Two of the Illinois Retailer's Occupation Tax Act (Section 2, House Bill 1609, Approved July 31, 1961 IL. Rev. Stat. 1961, Chap. 120 Sec. 441) from any of the taxes imposed by that Act.

### 1.09 IDENTIFICATION AND SUBMITTAL OF BID

- A. Each bid and all papers bound and attached to it shall be placed in an envelope and securely sealed therein. The envelope shall be plainly marked with the following:
  - 1. The word "BID"
  - 2. Name and address of the Bidder.
- B. The envelope of the bid shall be addressed to:

Lake Land College  
C/O Office of Vice President for Business Services  
Mechatronic Laboratory Equipment, Project # 2023-010  
5001 Lake Land Boulevard  
Mattoon, Illinois, 61938
- C. Bids shall be delivered before the time set for the opening of the bids. Bids arriving by mail or otherwise after the time designated for the opening of bids will be returned unopened. Oral, telephone, facsimile, electronic mail, or telegraph bids shall not be accepted.

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### 1.10 MODIFICATION OR WITHDRAWAL OF BID

- A. A bid may not be modified after submittal. Bidders may withdraw a bid at any time before opening. A Withdrawal of a Bid must be made in writing or in person by a bidder or his duly authorized agent. If a firm, association or partnership wishes to withdraw a bid, an official or duly authorized agent must sign the written request or appear in person.
- B. Once withdrawn, the bidder must submit a new bid prior to the opening in order to be considered.
- C. No Bid may be withdrawn or modified after the Bid opening except where the award of the Contract has been delayed beyond 60 days after date of Bid.

### 1.11 OPENING OF BIDS

- A. The Bids submitted will be opened at the time and place stated in the Advertisement for Bids and publicly read aloud and thereafter shall remain on file with the Owner.
- B. After Bids are opened, the Bids will be tabulated for comparison on the basis of the Bid prices and quantities shown on the Bids.
- C. The Owner reserves the right to withhold the award of the Contract for a period of 60 days from the date of the opening of Bids and no award will be made until the Owner is satisfied as to the responsibilities of the low Bidders.
- D. Until final award of the Contract, the Owner reserves the right to reject any or all Bids or proceed to do the work otherwise in the best interest of the Owner.

### 1.12 EVALUATION AND CONSIDERATION OF BIDS

- A. The Owner reserves the right to reject all bids or parts of bids, and to waive informalities therein.
- B. For the purpose of determining the lowest responsible bidder in the consideration of all bids submitted, the Owner reserves the right to accept or reject any or all alternates in the numerical order in which they appear on the bid form.

### 1.13 DISQUALIFICATION OF BIDDERS

- A. Bids will not be considered if they show any omissions, additions, alterations of form, conditions not requested unauthorized alternate Bids or irregularities of any kind. However, the Owner reserves the right to waive any irregularities and to make the award in the best interest of the Owner.
- B. The Bidder acknowledges the right of the Owner to reject any or all Bids and to waive any informality or irregularity in any Bid received. In addition, the Bidder recognizes the right of the Owner to reject a Bid if the Bidder fails to submit the data required by the Bidding Documents.



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- C. For the purpose of determining the lowest responsible bidder in the consideration of all bids submitted, the Owner reserves the right to accept or reject any or all alternates in the numerical order in which they appear on the bid form.

### 1.14 APPLICABLE LAWS

- A. All applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over the Work shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.
- B. Bidder's signatures shall be construed as acceptance of and willingness to comply with all provisions of the acts of the General Assembly of the State of Illinois relating to the Department of Human Rights Act, previously the Illinois Fair Employment Practices Act, Prevailing Wage Act for workers in our area, preference to citizens of the United States and residents of the State of Illinois, and discrimination and intimidation of employees. Provisions of said acts are hereby incorporated by reference and become a part of this proposal and specification.

### 1.15 EXECUTION OF THE AGREEMENT

- A. The successful Bidder, if awarded the Project, shall sign the necessary Agreements with the Owner and furnish Payment and Performance Bonds and Certificates of Insurance, if required elsewhere in this document, but no such Agreement shall be in force and effect until it is executed by all parties, and the Payment and Performance Bonds and Certificates of Insurance have been approved.
- B. Failure to execute and return the Agreement within ten (10) calendar days may result in the rescinding of the Contract award.

### 1.16 RECORDS:

- A. The Contractor shall maintain, for a minimum of 5 years after the completion of the contract, adequate books, records and supporting documents to verify the amounts, recipients, and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records and supporting documents related to the Contract shall be available for review and audit, and the Contractor agrees to cooperate fully with any audit conducted and to provide full access to all relevant materials.

END OF SECTION

SECTION 004146

BID FORM

PROJECT

IDENTIFICATION: Mechatronic Laboratory Equipment, Project # 2023-010
BID TO: Board of Trustees
Lake Land College District Number #517
Office of the Vice President for Business Services
5001 Lake Land Boulevard
Mattoon, Illinois, 61938

BID FROM: \_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_

The undersigned Bidder agrees, if this Bid is accepted, to enter into an Agreement with the Owner, in the form included in the Bidding Documents, to perform and furnish all materials, labor and equipment as specified or indicated in the Bidding Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the terms and conditions of the Contract Documents.

In submitting this Bid, Bidder represents that:

- A. This Bid will remain subject to acceptance for 60 days after the day of the bid opening.
B. The Owner has the right to reject this bid.
C. Bidder will sign and submit the Agreement with the Bonds and other documents as required by the Bidding requirements within 15 days after the Owner's Notice of Award. A W-9 Form is required.
D. Bidder has copies of all the Bidding Documents.
E. Bidder is familiar with federal, state and local laws and regulations.
F. Bidder has correlated the information known to Bidder with the Bidding Documents.
G. This Bid is genuine and not made in the interest of or on the behalf of an undisclosed person, firm or corporation and is not submitted in conformity with an agreement or rules of a group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited another Bidder to submit a false or sham Bid; Bidder has not solicited or induced a person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself an advantage over another Bidder or over the Owner.
H. Bidder has received the following addenda receipt of which is hereby acknowledged.

Date Number
\_\_\_\_\_
\_\_\_\_\_

Bidder will provide all materials, labor and equipment as specified in accordance with the Contract Documents for the following price(s):

STIPULATED-SUM BID PRICE
(Base Bid – Mechatronic Laboratory Equipment)

\_\_\_\_\_ Dollars (\$) \_\_\_\_\_
(use words) (figures)

Bidder agrees to provide all materials, labor and equipment, as specified, on or before the number of calendar days indicated below.

SUBMITTED on \_\_\_\_\_, 2023

Company \_\_\_\_\_

Address \_\_\_\_\_

No. of Working Days
To Provide Specified
Materials, Labor and
Equipment

Signed \_\_\_\_\_

(Printed Name)

\_\_\_\_\_ Days

Phone \_\_\_\_\_

Email \_\_\_\_\_

END OF SECTION

## SECTION 110113

### Mechatronic Laboratory Equipment

#### PART 1 GENERAL

##### 1.01 SCOPE

- A. The purpose of these specifications is to establish minimum standards and features for the purchase of Mechatronic Laboratory Equipment. The system shall meet all applicable codes, and other provisions as specified herein. Furnish parts, fittings, and any other accessories required, as specified, to provide complete and fully functioning Mechatronic Laboratory Equipment.
- B. If a Bidder is unable to comply with any of the following specifications, the Bidder shall submit in writing the reason for noncompliance. Noncompliance with any specification is grounds for rejection of the entire bid. The buyer reserves the right to reject any bid which does not meet these specifications.
- C. **Bids shall be for product complete, delivered, including all shipping, handling and delivery fees and will have no hidden costs.**
- D. Bids shall include explicit technical information, if applicable, regarding electrical, plumbing, ventilation, special structural considerations or other accommodations required for the proper installation and operation of specified equipment.
- E. All equipment shall bear full manufacturers on-site warranty for a minimum of one year from the date of delivery to the Owner and shall include parts, labor and software upgrades.
- F. Provide on-site/online remote training for college personnel by certified instructor(s) to ensure a reasonable level of proficiency with all supplied equipment.
  - 1. All student and teacher materials, software, manuals, guides or other supplied materials or information shall be presented in a neat, orderly, and professional manner using binders, folders or other devices as necessary.

##### 1.02 QUALITY ASSURANCE

- A. Submit a list of special tools and test equipment required for maintenance and testing of the products supplied.
- B. All equipment shall have a nameplate that identifies the manufacturer's name, address, type or style, model or serial number, and catalog number.

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### 1.03 GENERAL

- A. Items specified below are singular in quantity unless otherwise specified.

### PART 2 PRODUCTS

#### 2.01 Mechanical Training Items

- A. Provide one (1) **Amatrol 970-ME1**, Mechanical Drives 1 Learning System. Requires 41227 Hand Tool Package and 120V/60Hz/1ph electrical. Accommodates two (2) students. Also requires PC; see [amatrol.com/support](http://amatrol.com/support) for PC requirements. Optional 23155 Spare Parts kit available.

Includes: (1) Mobile Workstation; (1) Motor Base Package; (1) Bearing Package; (1) Prony Brake; (1) Shaft and Standoffs Package; (1) Rotary Power Component Package; (1) Alignment Package; (1) Gauging Package; (1) Digital Tachometer; (1) Toolbox; (1) Lockout/Tagout Kit; (1) M19146 Student Curriculum - Interactive PC-Based Multimedia; (1) C19146 Instructor's Guide; (1) K19146 Instructor's Resource Print CD; (1) D19146 Installation Guide; (1) H19146 Student Reference Guide.

- B. Provide one (1) **Amatrol 41227**, Hand Tool Package - Mechanical 1, Required for 970-ME1.

Includes: (1) Socket Set; (1) Torque Wrench; (2) Combination Wrench; (1) Screwdriver Set; (1) 6" Rule; (1) Allen Wrench Set; (10) Corrosion Inhibiting Wrap; (1) 6" Dial Calipers; (1) Feeler Gauge; (1) Dead Blow Hammer; (1) Leather Gloves; (1) Wax Crayon and Holder; (1) Magnifier; (1) Nylon String; (1) Oil; (1) Keyway Punch; (1) Rubber Gloves; (1) Spring Scale; (1) Tape Measure; (1) Threadlocker; (1) 3-Drawer Tool Box; (1) Utility Knife; (2) Wire Brush Sets; (1) Masking Tape; (1) Scissors.

- C. Provide one (1) **Amatrol 97-me2**, Mechanical Drives 2 Learning System, Requires 970-ME1 Mechanical Drives 1 Learning System, 18588 Viscosimeter and PC; see [amatrol.com/support](http://amatrol.com/support) for PC requirements. Optional 23157 Spare Parts kit available.

Includes: (1) Coupling/Sprocket Package; (1) Belt Package; (1) Chain Package; (2) Components Packages; (1) Indicator Package; (1) M19152 Student Curriculum - Interactive PC-Based Multimedia; (1) C19152 Instructor's Guide; (1) K19152 Instructor's Resource Print CD; (1) D19152 Installation Guide; (1) H19152 Student Reference Guide.

- D. Provide one (1) **Amatrol 18588**, Tools and Viscosimeter (Saybolt Universal Second), Required for 95-ME2 Mechanical Drives 2 and 97-ME2 Mechanical Drives 2 Learning System. Includes (1) Viscosity Gauge.

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- E. Provide one (1) **Amatrol 97-me2a**, Laser Shaft Alignment Learning System, Requires 97-ME2 Mechanical Drives 2 Learning System and 970-ME1 Mechanical Drives 1 Learning System, and PC. See [amatrol.com/support](http://amatrol.com/support) for PC requirements.

Includes: (1) Laser Alignment System with Mounting Hardware; (1) M19166 Student Curriculum - Interactive PC-Based Multimedia; (1) C19166 Instructor's Guide; (1) K19166 Instructor's Resource Print CD; (1) D19166 Installation Guide; (1) H19166 Student Reference Guide.

- F. Provide one (1) **Amatrol 97-me3**, Mechanical Drives 3 Learning System, Requires 970-ME1 Mechanical Drives 1 Learning System, 41211 Hand Tool Package and PC; see [amatrol.com/support](http://amatrol.com/support) for PC requirements.

Includes: (1) Fastener Kit; (1) Worm Gear Speed Reducer; (1) Ball Bearings Package; (1) Roller Bearings Package; (1) Plain Bearings Package; (1) Angular Contact Bearing; (1) Bearing Press; (1) Seals Package; (1) Helical Gear Set; (1) M19153 Student Curriculum - Interactive PC-Based Multimedia; (1) C19153 Instructor's Guide; (1) K19153 Instructor's Resource Print CD; (1) D19153 Installation Guide; (1) H19153 Student Reference Guide.

- G. Provide one (1) **Amatrol 41211**, Hand Tool Package 2 - Mechanical (Standard), Required for 97-ME3.

Includes: (1) 16" Hand Box; (1) Pliers Set; (1) Arbor Press; (1) Oil Brush; (1) Degreaser; (1) Cleaning Pan; (1) Socket Set; (1) Wrench; (1) Disposable Gloves, Box.

- H. Provide one (1) **Amatrol 97-me4**, Mechanical Drives 4 Learning System, Requires 970-ME1 Mechanical Drives 1 Learning System.

Includes: (1) Brake Package; (1) Clutch Package; (1) Linear Ball Bushing Package; (1) Ball Screw Package; (1) Flywheel Package; (1) Electric Control Package; (1) B19159 Student Learning Activity Packet; (1) C19159 Instructor's Guide; (1) K19159 Instructor's Resource Print CD; (1) D19159 Installation Guide; (1) H19159 Student Reference Guide.

- I. Provide one (1) **41221**, Hand Tool Package - Pneumatic Systems, Required for 85-IP, 950-PT1, 990-PN1 and 96-PNE2.

Includes: (1) 16" Hand Box, (1) Strap Wrench; (1) Combination Wrench; (1) Screwdriver Set, (1) Feeler Gauge; (1) Grease; (1) Magnifier; (1) Oil; (1) Pick Set; (1) Can; (1) Spanner Wrench; (1) Tweezers, (1) Adjustable Wrench; (1) Syringe.

## SECTION 110113

### 2.02 Programmable Logic Controller Training Items

- A. Provide four (4) CLICK PLC'S, Four click PLC's for training and working with PLC communications.

## PART 3 EXECUTION

### 3.01 DELIVERY, STORAGE AND HANDLING

- A. All equipment shall be packaged in a manner to preclude any damage from the weather, humidity and temperature variations, dirt and dust, or other contaminants during transportation or storage.
- B. All equipment shall be provided in the manufacturer's original sealed packaging and shall be clearly marked with the project name and number;

Project 2023-010 – Mechatronic Laboratory Equipment

### 3.02 INSTALLATION

- A. Provide installation of all equipment according to the manufacturer's diagrams and recommendations.

END OF SECTION