

# LOUISIANA TECH UNIVERSITY

## INVITATION TO BID ONLY



BIDDER MUST FILL IN COMPANY NAME AND COMPLETE ADDRESS (PRINTED OR TYPED)

PHONE:

FAX:

EMAIL:

**RETURN THIS FORM TO:**

**PURCHASING OFFICE**  
 P.O. Box 3157  
 208 Keeny Circle, Rm. 408  
 Ruston, LA 71272

Phone: 318-257-4205  
 Fax: 318-257-3772

Company Quote #  
 if applicable

BID SUBMISSION DEADLINE:

April 24, 2024 @ 2:00PM

BID NUMBER:

50012-567-24

DEPARTMENT

Engineering

**PRICE MUST BE FIRM FOR AT LEAST 30 DAYS FROM OPENING DATE**

DELIVERY IN  DAYS

TERMS

**BIDDER AGREES TO COMPLY WITH ALL CONDITIONS BELOW AND ATTACHED TO THIS REQUEST.**

Prices are to be complete and the FOB point to be Louisiana Tech University unless otherwise specified.

**FAILURE TO SIGN WILL DISQUALIFY BID**

Typed or Printed Name

Authorized Signature/Title

ITEM:	COMPLETE SPECIFICATIONS	QTY. & UNIT:	UNIT PRICE:	AMOUNT:
	<p>Louisiana Tech University's Engineering Department is now accepting SEALED bids for the following:</p> <p><b>Living with the Lab Student Project Parts</b></p> <p>Vendors: Please bid on any items you can supply; even if you cannot supply the full list of items. We encourage any and all bid submissions.</p> <p>Delivery requested by June 14, 2024.</p> <p><b>*NO BID BOND IS REQUIRED FOR THIS BID*</b></p> <p><b>**PLEASE SEE THE ATTACHED BID SPECIFICATIONS**</b></p> <p><b>ALL BIDS MUST BE RETURNED TO THE LOUISIANA TECH PURCHASING OFFICE VIA MAIL OR IN PERSON. DO NOT FAX OR EMAIL.</b></p> <p>For questions or more information, please contact William Long at 318-257-2157 or Ashley Osborne at 318-257-3423.</p>			

**IMPORTANT:** If bidding other than requested brand and product number (or style), enclose sufficient literature to determine compliance with specifications. Failure to comply with this request may eliminate your bid from consideration. Any manufacturer's names, trade names, brand names, or catalog numbers used in the specifications are for the purpose of describing and establishing general quality levels. Such references or not intended to be restrictive. Bids will be considered for any brand which meets or exceeds the quality of the specifications listed for any item.

## Schedule of Items

Page No. 2  
 Purchase Req. # 97 8603  
 Bid No. 50012-567-24

**Important:** If bidding other than requested brand and product number (or style), please enclose sufficient literature to determine compliance with specification. Failure to comply with this request may eliminate your bid from consideration. Any manufacture's names, trade, brand names, or catalog numbers used in the specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive. Bids will be considered for any brand, which meets or exceeds the quality of the specifications listed for any items.

<u>ITEM</u>	<u>Description</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Continuous Rotation Servo (each)	1,850		
2	Servo wheels + tires (each)	2,000		
3	Battery pack, 6-AA (2.1mm barrel jack with at least 6" lead)	1,000		
4	Breadboard, 400-point	1,500		
5	Power supply, 9V, 1A, 2.1mm barrel jack	700		
6	USB cable: A (male) to B (male), 3ft length	1,000		
7	Probe thermometers (5" length, digital)	900		
8	Film canisters (35MM clear plastic with caps)	900		
9	Geared N20 micro DC motor	1,200		
10	Alligator-to-breadboard clip pair	1,000		
11	BLE 4.0 Bluetooth Module (AT-09)	800		
12	3-Axis Accelerometer Module (GY-521 / MPU-6050)	800		
13	Motor Drive Controller Board (L298N)	1,000		
14	PING))) ultrasonic distance sensor	700		
15	TL-12 multimeter leads (IC clip to banana)	1,500		
16	Jumper Wires, pin-socket (40 pc)	700		
17	Power supply, 12V, 5A, 2.1mm barrel jack	500		
18	Tool bags, customized ( <i>See photo</i> )	900		



## Living with the Lab Student Project Parts

Each of the items shall conform to the specifications listed on subsequent pages. Deviation from these specifications is not allowed unless specified.

Line Item #	Line Item Description	Quantity
1	Continuous Rotation Servo (each)	1850
2	Servo wheels + tires (each)	2000
3	Battery pack, 6-AA (2.1mm barrel jack with at least 6" lead)	1000
4	Breadboard, 400-point	1500
5	Power supply, 9V, 1A, 2.1mm barrel jack	700
6	USB cable: A (male) to B (male), 3ft length	1000
7	Probe thermometers (5" length, digital)	900
8	Film canisters (35MM clear plastic with caps)	900
9	Geared N20 micro DC motor	1200
10	Alligator-to-breadboard clip pair	1000
11	BLE 4.0 Bluetooth Module (AT-09)	800
12	3-Axis Accelerometer Module (GY-521 / MPU-6050)	800
13	Motor Drive Controller Board (L298N)	1000
14	PING))) ultrasonic distance sensor	700
15	TL-12 multimeter leads (IC clip to banana)	1500
16	Jumper Wires, pin-socket (40 pc)	700
17	Power supply, 12V, 5A, 2.1mm barrel jack	500
18	Tool bags, customized (See photo)	900

**DELIVERY REQUESTED IF POSSIBLE BY JUNE 14, 2024.**

***VENDORS: Please bid on any items you can supply, even if you cannot supply the full list of items. We encourage any and all bid submissions.***

**All items to be supplied must conform to the Specifications on following pages.**

## LINE ITEM 1: Continuous Rotation Servo



### **Specifications:**

Each servo shall contain horns and hardware needed to mount the horns.

### **Model:**

FeeTech FT90R (no substitutions)

### **Operation:**

Type: Continuous Rotation

Pulse Width: 900 $\mu$ s-2100  $\mu$ s

### **Output:**

No-Load Speed: 100RPM @ 6V

Torque: 21 oz-in @ 6V

### **Physical Characteristics:**

Weight: 9g

Operation Voltage: 6V

Mounting Holes: 2mm diameter, 27mm center to center

Dimensions: 22.9mmx12.1mmx26.5mm

Output Shaft: 20 tooth spline, 4.8mm OD, Hole for screw to secure wheels

Interior gears: Metal

### **Connection:**

Wire: 3

Color Code: Black-Ground; Red-servo power; White: Servo control signal

*\*\*Note: This color code is preferred, but substitutions accepted\*\**

Cable length: 250 mm

Cable termination: JR style. 2.54mm pitch

**QUANTITY REQUIRED: 1850**

**LINE ITEM 2: Continuous Rotation Servo wheel + tire (each)**



**Wheel Specifications:**

Wheels must include tires. Also, the wheel must be directly compatible with the servos specified above without the use of an adapter hub.

**Wheel Dimensions:**

Diameter: 56mm

Thickness: 8mm

**Tire Dimensions:**

Thickness: 2mm (so that the overall assembled diameter is 60mm)

Material: Silicone

Retention: Must have some form of positive retention. i.e., sidewalls. A band over a disc is not acceptable. A simple band wrapped around the circumference of the wheel is not acceptable since these tend to slip off.

**QUANTITY REQUIRED: 2000**



**LINE ITEM 3: Battery pack, 6-AA with barrel jack (2.1 mm ID x 5.5 mm OD jack)**



**Specifications:**

**Battery Capacity:** 6x "AA" size cells

**Battery Arrangement:** 1 row of 6 cells

**Leads:**

Approximately 6" long

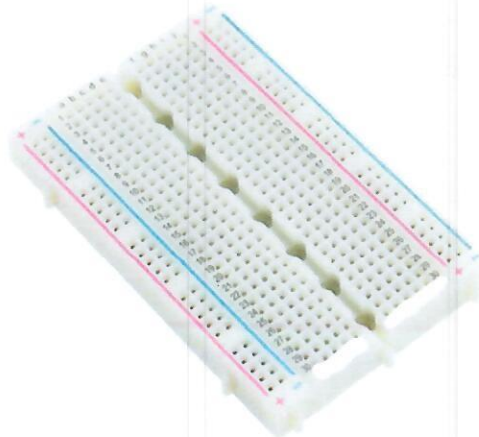
24AWG or larger diameter (i.e., smaller gauge)

Two leads should exit at a common point

2.1mm ID x 5.5 mm OD Barrel jack attached to the end

**QUANTITY REQUIRED: 1000**

**LINE ITEM 4: Breadboard, 400-point**



**Specifications:**

**Size:** 3.25in x 2.125in

**Type:** Solderless

**Pitch:** 2.54mm

**Tie Points:** 400

**Power Busses:** 2 on each side, one colored red and the other colored blue or black

**Pre-drilled mounting holes** (preferable; breadboards without mounting holes acceptable)

**QUANTITY REQUIRED: 1500**

**LINE ITEM 5: Power supply, 9V, 1A, 2.1mm ID x 5.5mm OD**



**Specifications:**

**Input voltage:** 100 – 240VAC

**Output:** 1A or greater, regulated 9VDC

**Other specs:**

1.5 m (5ft) power cord

Cord terminates in 2.1mm ID x 5.5mm OD barrel connector (male)

**QUANTITY REQUIRED: 700**

**LINE ITEM 6: USB Cable**



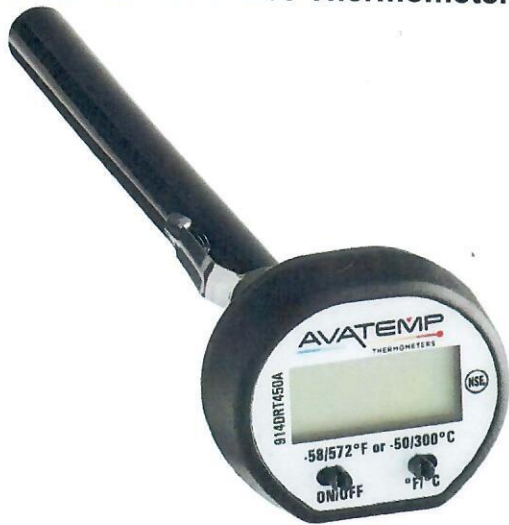
**Specifications:**

**End connections:** Male (A) to Male (B)

**Length:** Minimum 3ft (*color irrelevant*)

**QUANTITY REQUIRED: 1000**

**LINE ITEM 7: Probe Thermometers (5" length, digital readout)**



**Specifications:**

**Length:** 5"

**Readout:** Digital, must also be able to show Fahrenheit and Celsius  
*\*\*Brand name negotiable.\*\**

**QUANTITY REQUIRED: 900**

**LINE ITEM 8: Film Canisters**



**Specifications:**

35MM

Must include lids

Clear plastic

**QUANTITY REQUIRED: 900**



**LINE ITEM 9: Geared N20 Micro DC Motor**



**Specifications:**

**RPM @ 5V:** 48

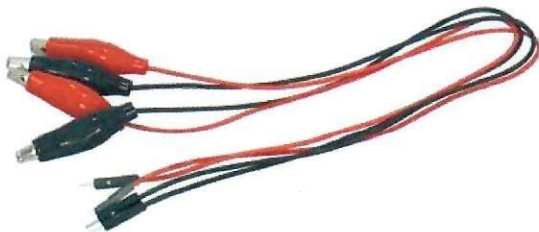
**Gear Ratio:** 1:298

**Voltage:** DC 3-6V

**NOTE:** Unterminated lead wires also acceptable; **MUST** be metal gears

**QUANTITY REQUIRED: 1200**

**LINE ITEM 10: Alligator Clip to Breadboard Pin Cable Assembly**



**Specifications:**

**Connector, end 1:** Alligator Clip, insulated

**Connector, end 2:** Breadboard PC Pin

**Color:** One black, one red

**Cable Length:** At least 12"

**Wire Gauge:** 24 AWG or larger diameter (i.e., smaller gauge)

**Voltage Rating:** 300V

**QUANTITY REQUIRED: 1000 pairs**

**LINE ITEM 11: BLE 4.0 Bluetooth Module (AT-09)**



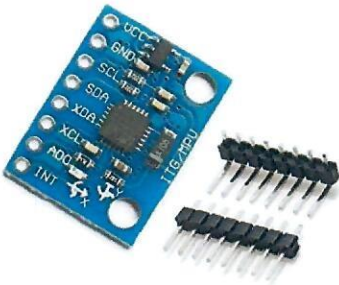
**Specifications:**

**Input voltage:** 3.3V/5V

Supports UART interface and SPP Bluetooth serial port protocol (BLE v4.0)  
For use with Arduino microcontrollers

**QUANTITY REQUIRED: 800**

**LINE ITEM 12: 3-Axis Accelerometer Module (GY-521 / MPU-6050)**



**Specifications:**

**Communication mode:** standard IIC communication protocol

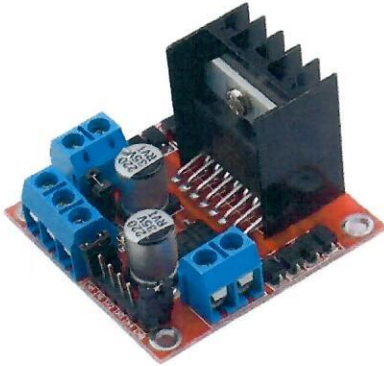
Chip built-in 16bit AD converter, 16bit data output

**Gyroscopes range:** +/- 250 500 1000 2000 degree/sec

**Acceleration range:** ±2 ±4 ±8 ±16g

**QUANTITY REQUIRED: 800**

**LINE ITEM 13: Motor Controller Driver Board (L298N)**



**Specifications:**

Dual channel H-bridge driver, main chip L298N

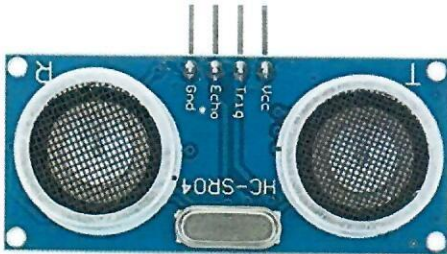
**Voltage:** 12V

**Wattage:** 25W

For use with Arduino microcontrollers

**QUANTITY REQUIRED: 1000**

**LINE ITEM 14: PING))) Ultrasonic Distance Sensor**



**Module:** Must have four pins: Vcc, Trig, Echo, Gnd

**Capabilities:** Capable of sensing distances of 2cm – 500cm with a resolution of 0.3cm

**Power:** Must operate on 5V supply

**QUANTITY REQUIRED: 700**



**LINE ITEM 15: TL-12 Test Leads**



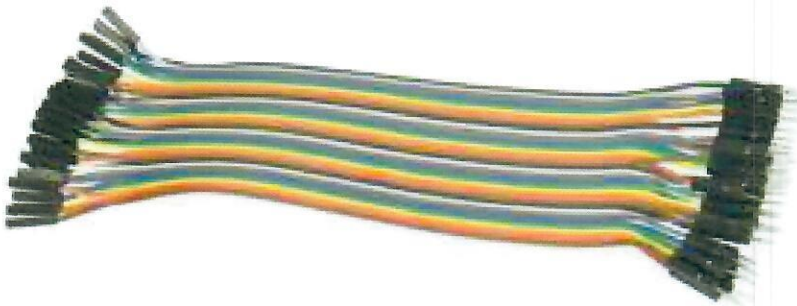
**Part number:** TL-12

**Physical Characteristics:**

Stackable Banana to Minigrabber  
Pair of red/black  
12" length or longer

**QUANTITY REQUIRED:** 1500

**LINE ITEM 16: Jumper Cables, 40-pack, M-F**



**Connectors:** 1 male end, 1 female end; 0.25" pin/sockets

**Length:** 7" or 20cm

**Misc. specs:** Pull-apart, multi-colored

**QUANTITY REQUIRED: 700**

**LINE ITEM 17: Power Supply, 12V, 5A, 2.1mm ID x 5.5mm OD**



**SPECS:** 12V, 5A minimum; 2.1mm ID x 5.5mm OD barrel plug

**QUANTITY REQUIRED: 500**

**LINE ITEM 18: Tool bags, customized**



**Physical Characteristics:**

Custom colors, Tech Pantone match

PMS 287 / #003087

PMS 1797 / HEX #CB333B

Metal zipper closure

Plastic handle

MINIMUM Dimensions: 6" H x 11" W x 4" D

MAXIMUM Dimensions: 9" H x 12.5" W x 5" D

**QUANTITY REQUIRED: 900**



# THIS IS A REQUEST FOR A SEALED BID INSTRUCTIONS TO BIDDERS

1. Read the entire bid, including all terms and conditions and specifications.
2. Louisiana Tech University is not liable for any cost incurred by the bidders prior to execution of a contract and the issuance of a purchase order. Any bidder who ships or otherwise expends time or money prior to award as defined does so at the bidder's own risk.
3. All bid prices must be typed or written in ink. Any corrections, erasures or other forms of alteration to unit prices should be initialed by the bidder. If the bidder needs to submit a change, question, exception, or modification to any aspect of the bid specifications, terms, conditions, or bidder instructions, must do so in written form submitted to the Louisiana Tech University Purchasing Office prior to the bid opening date. All responses and/or addenda will be officially submitted by the Louisiana Tech University Purchasing Office 72 business hours before the bid opening date. Business hours is defined as University operating hours while the University is open. Unless received as specified above, all bid information will remain unchanged.
4. This bid is to be manually signed in ink.
5. Bid prices shall include all delivery charges paid by the vendor, F.O.B. Destination, unless otherwise provided in the solicitation. Bids requiring deposits, "payment in advance" or "C.O.D" may be rejected. Payment is to be made within 30 days after receipt of properly executed invoice or delivery, whichever is later.
6. Amount of bid bond required: every bid submitted for in excess of fifty thousand dollars shall be accompanied by a bid bond guaranteed by a surety company qualified to do business in the state of Louisiana. The bid bond shall be for five percent of the official bid amount.
7. To assure consideration of your bid, all bids and addenda should be returned in an envelope or package clearly marked with the bid opening date and the bid number; or submitted in the special envelope, if furnished for that purpose.
8. Bids submitted are subject to provisions of the laws of the State of Louisiana including but not limited to L.R.S. 39:1551-1736; Purchasing rules and regulations; executive orders; standard terms and conditions; special conditions; and specifications listed in this solicitation.
9. Important: By signing the bid, the bidder certifies compliance with all instructions to bidders, terms conditions and specifications, and further certifies that this bid is made without collusion or fraud. This bid is to be manually signed in ink by a person authorized to bind the vendor (see no. 27). All bid information shall be in ink or typewritten.
10. Address all inquiries and correspondence to the Louisiana Tech University Office of Purchasing at the address and telephone number listed herein.
11. Bid forms: All written bids, unless otherwise provided for, must be submitted on, and in accordance with, forms provided, and properly signed (see no. 27). Bids submitted in the following manner will not be accepted:
  - A. Bid contains no signature indicating intent to be bound;
  - B. Bid sent by facsimile equipment;
  - C. Bid filled out in pencil; and
  - D. Bid not submitted on the designated bid forms.
12. Bids must be received at the address specified in the solicitation prior to bid opening time in order to be considered.
13. Standards of quality – Any product or service bid shall conform to all applicable federal, state, and local laws and regulations, and the specifications contained in the solicitation. If bidding other than the requested brand or product number (or style), enclose sufficient literature to determine compliance with specifications. Failure to comply with this request may eliminate your bid from consideration. Unless otherwise specified in the solicitation document, any manufacturer's name,



24. The bidder agrees to abide by the requirements of the following as applicable: Title VI of the Civil Rights Act of 1964 and Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972, Federal Executive Order 11246 as amended, the Rehabilitation Act of 1973, as amended, the Vietnam Era Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, the Fair Housing Act of 1968 as amended, and bidder agrees to abide by the requirements of the Americans with Disabilities Act of 1990. Bidder agrees not to discriminate in its employment practices, and will render services under this contract without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, veteran status, political affiliation, disability, or age in any matter relating to employment. Any act of discrimination committed by bidder, or failure to comply with these statutory obligations when applicable shall be grounds for termination of any contract entered into as a result of this solicitation.
25. Special accommodation: Any "qualified individual with a disability" as defined by the Americans with Disabilities Act, who has submitted a bid and desires to attend the bid opening, must notify the Louisiana Tech University Office of Purchasing in writing not later than seven days prior to the bid opening date of their need for special accommodations. If the request cannot be reasonably provided, the individual will be informed prior to the bid opening.
26. Indemnity: Contractor agrees, upon receipt of written notice of a claim or action, to defend the claim or action, or take other appropriate measure, to indemnify, and hold harmless, the state, its officers, its agents and its employees from and against all claims and actions for bodily injury, death or property damages caused by the fault of the contractor, its officers, its agents, or its employees. Contractor is obligated to indemnify only to the extent of the fault of the contractor, its officers, its agents, or its employees. However, the contractor shall have no obligation as set forth above with respect to any claim or action from bodily injury, death or property damages arising out of the fault of the state, its officers, its agents or its employees.
27. Signature authority: Attention: R.S. 39:1594(c) (4) requires evidence of authority to sign and submit bids to the State of Louisiana. You must indicate which of the following apply to the signer of this bid.

Please circle one:

- 1) The signer of this bid is either a corporate officer who is listed on the most current annual report on file with the Secretary of State or a member of a partnership or partnership in commendam as reflected in the most current partnership records on file with the Secretary of State. A copy of the annual report or partnership must be submitted to this office before contract award.
  - 2) The signer of this bid is a representative of the bidder authorized to submit this bid as evidenced by documents such as Corporate Resolution, Certification as to Corporate Principal, etc. If this applies, a copy of the resolution, certification, or other supportive documents must be attached hereto.
  - 3) The bidder has filed with the Secretary of State an affidavit or resolution or other acknowledged/authentic document indicating that the signer is authorized to submit bids for public contracts. A copy of the applicable document must be submitted to this office before contract award.
28. In accordance with the provisions of R.S. 39:2182, in awarding contracts after August 15, 2010, any public entity is authorized to reject a proposal or bid form, or not award the contract to, a business in which any individual with an ownership interest of five percent or more, has been convicted of, or has entered a plea of guilty or nolo contendere to any state felony or equivalent federal felony crime committed in the solicitation or execution of a contract or bid awarded under the laws governing public contracts under the provisions of chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950; professional, personal, consulting, and social services procurement under the provisions of Chapter 16 of Title 39, or the Louisiana Procurement Code under the provisions of Chapter 17 of Title 39.
  29. It is agreed that the Legislative Auditor of the State of Louisiana and/or the Office of the Governor, Division of Administration auditors shall have the option of auditing all accounts which relate to this contract.
  30. The continuation of this contract is contingent upon the appropriation of funds to fulfill the requirements of the contract by the legislature. If the legislature fails to appropriate sufficient monies to provide for the continuation of the contract, or if



TO: Louisiana Veteran-Owned and Service-Connected Disabled Veteran-Owned Small Entrepreneurships

RE: Veteran Initiative – Act 167 of the 2009 Legislative Session

➤ **ARE YOU ELIGIBLE FOR PARTICIPATION?**

- Are you a veteran-owned small entrepreneurship or a service-connected disabled veteran-owned small entrepreneurship in accordance with documentation from the United States Department of Veteran Affairs or the Louisiana Department of Veteran Affairs?
- Are you a Louisiana domiciled business?
- Do you have less than fifty (50) full-time employees?
- Are your annual gross revenue receipts \$5,000,000 or less (for construction) or \$3,000,000 for (non-construction) for each of the previous three (3) tax years?

If your answers are yes, your company may be eligible for participation in the Louisiana Veteran-Owned and Service-Connected Disabled Veteran-Owned Small Entrepreneurship Program, also known as the Veteran Initiative.

➤ **WHAT IS THE VETERAN INITIATIVE?**

The Veteran Initiative, created by LRS 39:2171 through 2179 and LRS 51:931, provides additional opportunities for certified Louisiana-based small entrepreneurships to participate in contracting and procurement with the State. Key features of the programs are:

- This is a goal-oriented program
- It is race and gender neutral
- Participation is restricted to Louisiana-based certified veteran-owned and service-connected disabled veteran-owned small entrepreneurships

The rules governing the implementation of the program are located at <http://www.doa.louisiana.gov/osp/sc/se.htm>.

➤ **WHY IS CERTIFICATION IMPORTANT?**

Certification is required for the participation in the Veteran Initiative. Under this program, you may be given increased opportunity to participate in Louisiana state contracts. Certain contracts may be awarded to your business without competition. And, certification is one of the methods that the State of Louisiana will utilize as a basis for benchmarking for annualized procurement and contracting goals.

➤ **WHAT AGENCY IS RESPONSIBLE FOR CERTIFICATION?**

The Louisiana Department of Economic Development (LED) is responsible for certifying Small Entrepreneurships for participation in the program. The (LED) Small Business Certification System may be accessed by <https://smallbiz.louisianaeconomicdevelopment.com/Account/Login>. For additional information regarding certification, please contact the LED at 800.450.8115 or 225.342.3000.

➤ **WHAT IS THE ROLE OF THE DEPARTMENT OF VETERANS AFFAIRS?**

The Louisiana Department of Veterans Affairs is responsible for disseminating information on this program and other veterans' benefits to Louisiana veterans. Information on this program and other veterans' benefits can be accessed at [www.vetaffairs.al.gov](http://www.vetaffairs.al.gov).

The State of Louisiana is committed to the success of this program and encourages your participation.