



Instructional Equipment Request (IER) Form FY 2022-2023

Deadlines

Date	Action
October 12, 2022	IER forms due to Division Dean
October 19, 2022	Division review of IER forms (Dean & VP signature)
October 21, 2022	IER forms due to Executive Assistant of Administrative Services (with Dean & VP signature)

Checklist

- All IER form fields complete (**attach requisition and quote before e-signing IER form**)
- Requisition completed and attached
- Valid quote attached (with extended expiration date) including (1) shipping costs, (2) installation fees, and (3) taxes. **Do not split quotes or submit duplicate quotes.** For assistance with quotes, please contact Bill Pagano at bpagano@clpccd.org or (925) 485-5271.
 - If the quote total (including taxes) ranges from **\$30,000 to \$99,099**:
 - You must submit **three** written quotes with your request.
 - For quotes of **\$99,100 or more**, the request must go out for bid (aka RFP process) and requires Board approval. You will be provided further instruction after your request is approved.
- IER form and requisition signed by Requestor
- IER form, requisition, and quote submitted as one PDF file to Division Dean including:
 - New Vendor Form (if new vendor)
 - Copy of W9 (if new vendor)

*Note: Mac Users – do not use Apple Preview to complete forms – data will not appear when printed.

IER Process Flow

1. All paperwork filled out and signed by Requestor
2. Requestor submits to Dean for signature
3. Dean submits to VP for signature
4. VP submits to Executive Assistant of Administrative Services for review
5. EA Admin Svcs submits to M&O and IT for review
6. EA Admin Svcs creates scoring spreadsheet and disseminates to committee
7. RAC scores submissions and returns to EA Admin Svcs
8. EA Admin Svcs combines committee scores for review
9. RAC Chair documents committee scoring in memo
10. College President meets with RAC Chair to review committee recommendations
11. President’s Office provides approval memo to RAC
12. RAC submits IER forms to Business Office for processing

Instructional Equipment Definitions

Allowable Items

Allowable Items: Instructional equipment expenditures are eligible if the equipment, library material, or technology is for classroom instruction, student instruction or demonstration, or in the preparation of learning materials in an instructional program. There are five categories that will be used to classify instructional support. Please note that requests are not limited to the examples shown below.

1. **Equipment and Furniture:** instructional equipment and furniture for primary use by students in instructional programs:
 - a. Classroom/laboratory equipment including whiteboard, screen, projector, etc.
 - b. Instructional furniture including desks, tables, podium, chairs, etc.
2. **Information Technology:** instructional information technology equipment for student use in classrooms and/or laboratories including desktops, laptops, monitors, printers, servers, network/wireless infrastructure, AV/TV, multimedia.
3. **Software:** software licenses are allowed but only the initial year is permitted. Other software that are permitted are those that are used in excess of one year and software modifications that add capacity or efficiency to the software that defers obsolescence and results in an extension of the useful life of the software, including registration, counseling, student services, learning management systems for student use.
4. **Adaptive Equipment:** adaptive equipment for ADA/OCR students are allowed to assist them in a learning environment.
5. **Library Material:** databases, online subscriptions, books, periodicals, videos, etc.

Non-Allowable Items

Non-Allowable Items: Administrative or non-instructional purposes including equipment being used for administrative or non-instructional purposes is not allowed, including photocopiers, file cabinets, bookcases, computers, networking infrastructure, software licenses.

IE Rubric

RAC evaluates each IE request based on the rubric below. RAC stresses the importance of quality requests. RAC may choose not to rank incomplete IE requests.

Criteria	Strong Evidence	Adequate Evidence	Limited Evidence
LPC Mission & Planning Priorities [Section 2] (5 points) Ranking Scale	Clear and compelling evidence/data that equipment will fully support LPC Mission and Planning Priorities. 4-5	Clear evidence/data that equipment will fully support LPC Mission and Planning Priorities. 2-3	Limited or no evidence/data that equipment will support LPC Mission and Planning Priorities. 0-1
Educational Items: Programmatic Impact and Institutional Support [Section 3] (10 points) Ranking Scale	Clear and compelling evidence/data (as stated in program review) that this equipment will have substantial impact on program curriculum. 8-10	Clear evidence/data (as stated in program review) that this equipment will have substantial impact on program curriculum. 4-7	Limited or no evidence/data (as stated in program review) that this equipment will have an impact on program curriculum. 0-3
Teaching & Learning [Section 4] (10 points) Ranking Scale	Clear and compelling evidence/data that equipment provides much needed or beneficial enhancement to instruction. 8-10	Clear evidence/data that equipment provides enhanced instruction that is not met through current means. 4-7	Limited or no evidence/data that equipment provides enhanced instruction that is not met through current means. 0-3
Outcomes [Section 5] (5 points) Ranking Scale	Clear and compelling evidence/data that equipment will support course and/or program outcomes above and beyond current capability. 4-5	Clear evidence/data that equipment will support course and/or program outcomes beyond current capability. 2-3	Limited or no evidence/data that equipment will support course and/or program outcomes beyond current capability. 0-1

Instructional Equipment Request Form

Name of Requestor: Scott Miner

Division: PATH

This Equipment Request is: A Replacement | An Upgrade | New Equipment or Technology

SECTION 1: Equipment Description

Describe the specific equipment requested and how it will be used to replace, upgrade, or provide new technology to LPC from what is currently in place:

Equipment Location

Building #: New Advanced Manufacturing Bldg. Room #: TBD

Comments:

This is a work cell that contains a robot that does welding. These are critical workplace skills that our students are not getting exposed to or have an opportunity to learn about because this equipment has not become available on our campus. Our campus currently offers nothing in the way of robotics in any discipline. It didn't just happen overnight but robotics is a big part of manufacturing, and our college program has nothing in anyway to connect to that common place technology and many manufacturing environment, not just welding. Many of our students are coming to our college with robotic experience that they picked up in high school, but technology and applications that we do not provide here at the community college. As we move towards entering a new state of the art facility in the fall of 2023, our program must begin transitioning to manufacturing of tomorrow, and this piece of equipment is a critical aspect of that. One of our full-time faculty members is proposing taking a year sabbatical to become trained to be able to teach this technology to our students of the future. Without actual hardware the course and information will be nothing but PowerPoint, and YouTube videos. This equipment comes with one week of training the trainer instruction for department faculty

If applicable, describe the legal requirement, mandate, or safety concern related to the purchase of this equipment, making specific reference to legal requirements or regulations:

One of the important aspects of all robotic operations, is the safety of the operator and the human beings around it. This equipment has specifically been designed with this aspect taken into account, with an interlock enclosure that will shut off the machine if any door or entry point is violated. These concepts are important for students to witness see understand and be able to apply in industrial setting or production environment. The safety devices employed upon this piece of equipment meet or exceed requirements of OSHA

SECTION 2: LPC Mission Statement and LPC Planning Priorities

LPC Mission Statement

Las Positas College is an inclusive, learning-centered, equity-focused environment that offers educational opportunities and support for completion of students' transfer, degree, and career- technical goals while promoting lifelong learning.

LPC Planning Priorities

- Establish a knowledge base and an appreciation for equity; create a sense of urgency about moving toward equity; institutionalize equity in decision-making, assessment, and accountability; and build capacity to resolve inequities.
- Increase student success and completion through change in college practices and processes: coordinating needed academic support, removing barriers, and supporting focused professional development across the campus.

Explain how the equipment supports LPC's Mission Statement and Planning Priorities:

This equipment will provide Las Positas College welding students an inclusive, learning centered, equity focused environment. Las Positas College welding offers educational opportunities and support for completion of students transfer, degree, and career technical goals while promoting lifelong learning.

This equipment will provide students with increased CTE student success and completion through changes in our college practices and processes, coordinating needed academic support, removing inequities & barriers, and supporting focused professional development for faculty and staff.

Students in this program are defined as being part of the "Critical Infrastructure Workforce", important to our local, State and our Nation's economy and public safety.

SECTION 3: Educational Items | Program Review

Specify the educational programs the equipment supports:

Welding Technology

Ironworkers Union Apprenticeship

All Manufacturing Courses

Engineering Technology

Fixtures and aids for other programs on campus such Swimming, Automotive, Engineering and Horticulture as examples.

M&O Campus operations

Is the equipment part of an upcoming Program Review? Was it included last year? If not, why? Use language from your Program Review to explain:

AY 2020-21 Program review :

Section A. Accomplishments

Preparation, vision and planning for our new Advanced Manufacturing facility slated to open in Fall of 2023

Section C Planning

Refreshing shop equipment to meet industry standards.

The need to move in the direction of automation and robotics has been stated multiple times and program reviews over the years. As mentioned previously this material and equipment has been requested and this is something that's vital to our program into that point the college moving forward if our college actually support careers of tomorrow and opportunities today. Other welding programs around the state have this type of equipment and are teaching this technology. These are the jobs of tomorrow that employers are looking for today

SECTION 4: Teaching and Learning

Please use evidence and data that describes how the equipment provides enhancements/benefits to the current level of teaching capabilities:

This is a technology that is utilized extensively in manufacturing environment around the world. This has been an aspect of our program in our department that we have tried to pursue for a number of years. If the college wishes to provide career oriented life long learning, this is a great way to endorse that idea.

A full-time faculty member is proposing to take a year sabbatical to become proficient in this technology so that we can provide in-depth courses around welding and manufacturing using robotics.

Having a piece of technology and equipment that can accompany the uptick in professional development required to teach this subject is vital for faculty and students..

Detail the impact the equipment has on learning:

Students currently have no Avenue on our campus to pursue or learn about robotics in any environment but most importantly manufacturing. This has been a growing trend over a number of years and our students are slowly being left behind due to the lack of technology in this area that are college and district is able to provide. if this were equipment was made available students and could begin training for careers that employees and employers are looking for right now. We have a number of students that have left to college with no robotic experience and had to pick that up on the job, as we offered none of that type of training here at the college. Furthermore offering this at the college would also offer the opportunity for local manufacturers to train their current workforce in robotics and consider investing and using robotics within their current work plans.

Please state the number of classes and students the equipment will impact:

Classes/Sections: 8+ Classes/10-15 Sections/Year	Students: 100-125 CTE Students/Year
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SECTION 5: Student Learning Outcomes (SLOs)

Document how the equipment will enable you to surpass your current Student Learning Outcomes:

This equipment would allow us to create some student learning outcomes that currently do not exist within our department, or frankly on our campus. The goal of this would be to offer certification testing not only in manual welding like we currently do but to also offer it in a robotic arena as well. Certified robotic arc welding is a clearly defined career path in many manufacturing areas and industries. While we currently do not have any student learning outcomes with respect to robotics this equipment would provide the opportunity for us to make some industry relevant changes in update to our SLO's.

SECTION 6: Total Cost of Ownership | Maintenance and Sustainability

Please provide the lifespan of the proposed equipment:

The potential lifespan of this equipment like most things in the welding environment is anywhere from 10 to 15 years depending upon the amount of use, and within our department most importantly the amount of maintenance and preventative maintenance that occurs. One of the aspects of teaching about this type of equipment is to teach students about stewardship and taking care of the equipment and making sure that it is available for not only other students within their class but other students in future classes as well. We feel we are good stewards of the college assets.

What are the requirements and associated costs for the storage of the equipment?

No storage needs.

Is there a specific location required to store the equipment?

Note: include storage costs in Part A: Initial Start-Up Costs (pg. 10)

No storage needs

Does the new equipment replace older equipment? If so, will you retire/surplus the old equipment? If not, where will you store the older equipment and what are the associated storage costs?

New Technology

SECTION 6: Total Cost of Ownership | Maintenance and Sustainability (cont'd)

What are the maintenance costs associated with the regular upkeep of the equipment?

Regular upkeep and maintenance as well as stewardship is part of the teaching process in what we do in our laboratory. It is important that operators of equipment care for and be able to make simple repairs to keep the machine up and running and productive, and our search we provide that as part of the learning process here within the program and department.

Detail how the equipment meets or exceeds LPC's Sustainability Efforts:

This equipment is designed to be manufactured from recyclable materials. At the end of an expected lifespan this piece of equipment can be deconstructed into individual recyclable items. This equipment is all housed within one movable enclosure that houses all equipment component.

How does the equipment provide renewal resources to the college?

It runs on electricity generated from the solar panels on campus.

It emits no greenhouse gasses of any type

SECTION 6: Total Cost of Ownership | Maintenance and Sustainability (cont'd)

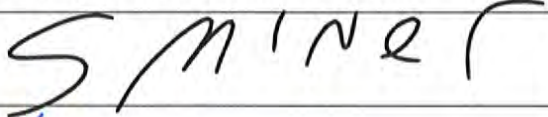

Part A: Initial Start-Up Costs		
Type	Cost	Comments
Equipment or Materials	126805	
Shipping & Delivery Fees	included	
Installation Costs		
Miscellaneous Costs		
Modification to Facilities		
Operator Training		
Maintenance/Repair Training		
Storage		
Other		
Discounts (enter as negative)		
Sub-Total	126805	
Taxes	12977.50	
Grand Total	139802	
Part B: Annual Operating Costs		
Type	Cost	Comments
Service/Maintenance		
Part Replacement	100	Contat tips and Gas Cups
Vendor Calibration or Standardization		
Storage		
Supplies		
Maintenance/Repair Labor		
Software Licensing		
Other		
Grand Total	100	
Overall Cost:		

SECTION 6: Total Cost of Ownership | Maintenance and Sustainability (cont'd)

Operator	
Primary operator:	Faculty Staff & Students
Does the work align with current position duties?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Cost to train primary operator:	Included in machine cost
Approx. # of hours equipment will be used per month:	100-150
Comments:	
Maintenance and Repairs	
Who will perform maintenance and repairs?	J Weston - Sr Lab Technician
Estimated hours per month:	2-4
Does the work align with current position duties?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Cost to train for maintenance and repairs:	Included in machine cost

Approvals and Signature Routing

Before signing below, please confirm all fields are filled out and all information provided is correct. Requests must be fully complete, signed, and submitted to your Division Dean by the deadline (see page 1). **Requisition and quote must be attached to this form before signing. Adobe prevents adding pages once a document has been e-signed.**

Requestor:		Date:	10/12/22
Division Dean:		Date:	10/19/22
Vice President:		Date:	
College Technical Service Manager:		Date:	
M&O Director:		Date:	
Vice President, Administrative Services:		Date:	



Office of Administrative Services
Requisition Request Form

(Wait 5-10s)

Reset Submit

R _____ - _____

Fiscal Year		Vendor ID #	Vendor Name		Date Required
2022			Linde		Fall 2023
Deliver To		Room #	Return Copy of Requisition To		
Advanced Manufacturing		TBD	S.Miner/PATH Division Office		
Seq	Item #	Description	Qty	Unit Price	Extended Cost
1	63758	3/8 x 8 ft Hydraulic Shear - AccurShear	1	82,054	\$82,054
2		Head Stock Positioner & Coordinated Motion Soft	1	11500	\$860
3					
4					
5					
6					\$ 0.00
7					\$ 0.00
8					\$ 0.00
9					\$ 0.00
10					\$ 0.00
11					\$ 0.00
12					\$ 0.00
13					\$ 0.00
14					\$ 0.00
15					\$ 0.00
Comments			Subtotal	85,789	
			10.25% Tax	8793.37	
			Shipping	\$5,900	
			Total Cost	100,482.37	
FOAP to be Charged			%	Amount	
			095650	100	
FUND	ORG	ACCOUNT	PROGRAM		
FUND	ORG	ACCOUNT	PROGRAM		

Scott Miner 10/12/2022

10/19/22

Requestor (print name) _____ Date _____ Dean (signature) _____ Date _____

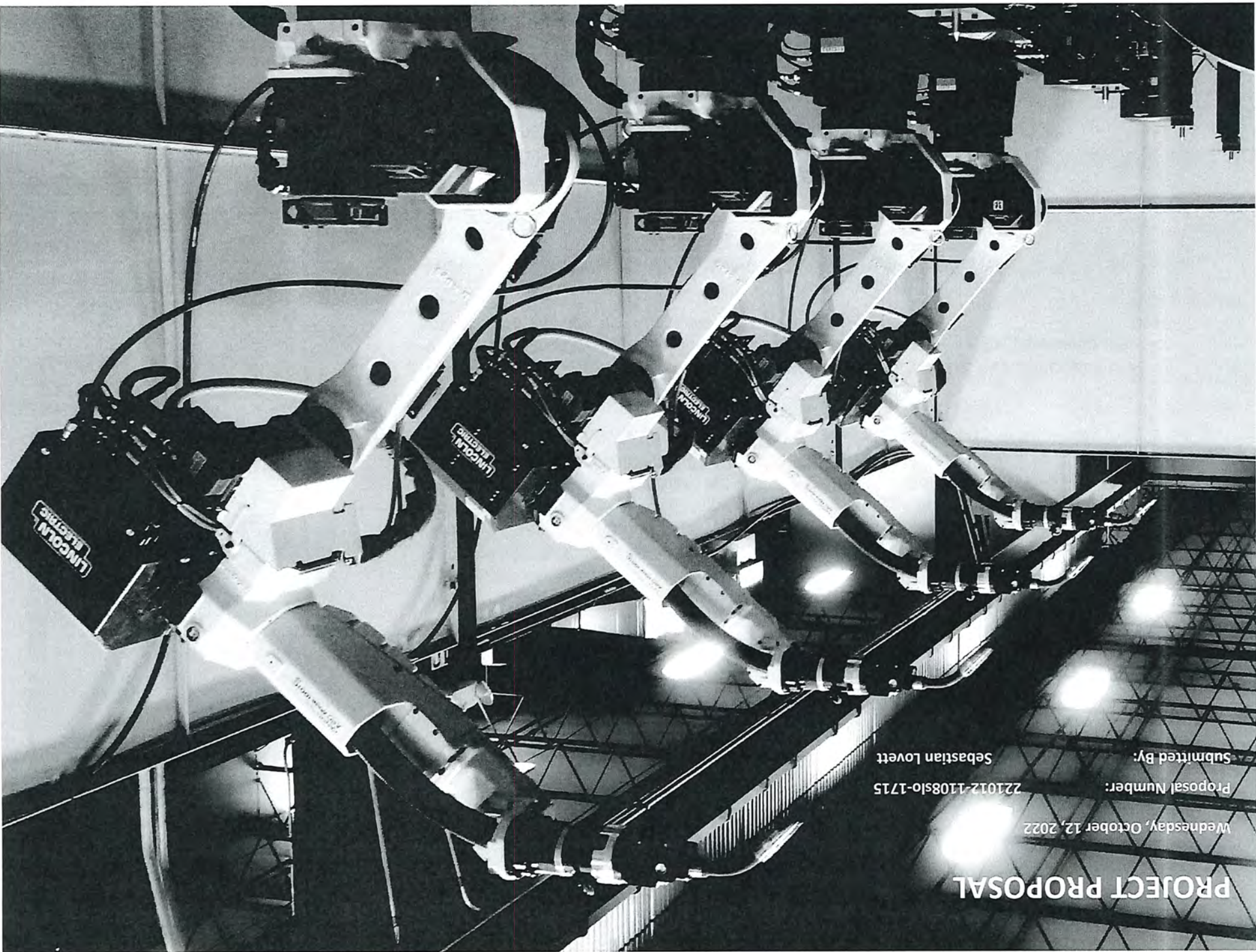
Coordinator/Manager (signature) _____ Date _____ Vice President (signature) _____ Date _____

OFFICE OF ADMINISTRATIVE SERVICES USE ONLY

Reviewed: _____ Verified: _____ Approved: _____
Administrative Services Administrative Services Officer VP, Administrative Services

PO Number: _____ Budget Transfer #: _____ Entered: _____

TR 4/6/20



PROJECT PROPOSAL

Wednesday, October 12, 2022

Proposal Number: 221012-1108sl0-1715

Submitted By: Sebastian Lovett



Lincoln Electric Automation
Cleveland Automation

22221 Saint Clair Avenue
Cleveland, Ohio 44117

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+1 216-383-2667 PHONE

+1 216-383-4727 FAX

www.lincolnelectric.com/Automation

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EXPERIENCE. INNOVATION. QUALITY.

10/12/2022

Fab-Pak FT-SS Educational Custom

SUBJECT: Proposal Number 220404-2102slo-1707

Dear Customer

Lincoln Electric Automation is pleased to submit this proposal covering your requirement for a robotic welding system. One of Lincoln Electric Automation™ many core competencies is providing complete welding and training systems to our customers as well as assistance and support. These unique systems improve quality, lower costs, and help customers enhance their working environments. Through design, integration, world-class customer service, and unparalleled welding expertise, we are the industry leader in automated arc welding and tooling solutions. We have served industries as diverse as automotive, aerospace, transportation, shipbuilding, petrochemical and heavy industry.

We hope that our proposal and the enclosed literature will answer any questions or concerns you may have. If you have any further questions after reviewing this information, please do not hesitate to contact us.

We look forward to assisting you on this project in any way we can.

Sincerely,

Sebastian Lovett
Project Manager, Proposals
(216) 308-1329

CONFIDENTIAL: DO NOT DISTRIBUTE

This document may only be reproduced as required for internal use by recipient in evaluation of this proposal.

WE'RE HERE WHEN YOU NEED US

When it comes to automation, there is very little Lincoln Electric Automation™ hasn't done. We've been around long enough to see the inception of robotic use in general industry.

We've always been on the cutting-edge of robotic innovation; creating automation solutions never done or seen before. Every day, we forge the new way...the better way of getting the job done.

REVISION LOG

Quote No.	Description	Date



No other company understands welding like Lincoln Electric.

For 125 years, we've been the world leader in the design, development and manufacturing of arc welding products. We deliver a complete "single source" robotic welding solution by manufacturing all the welding components needed to create high quality welds. This unparalleled level of control enables us to create robotic welding solutions that meet the unique needs of each of our customers. No other company has the ability to stand behind their robotic welding solutions like we do.

Our competition may know robots - but we know welding. In the end, it's the welding process that gets the results you need...not the robot.

When the quality of your product are only as good as the quality of the welds - you need to partner with

THE WELDING EXPERTS

Unparalleled Experience & Expertise.

Our systems make robotic welding easy.

- >> Deep knowledge and experience with automation design and robotic integration.
- >> ISO 9001-2015 certified quality in house tooling fixture design and build capabilities with offline simulation to reduce risk and ensure weld access.
- >> Robot and process equipment built and shipped on a single pallet for quick and easy installation.
- >> Lincoln Electric Automation's strategic alliance with FANUC Robotics translates into an unequaled combination of welding and robotics expertise, plus single-source efficiency.

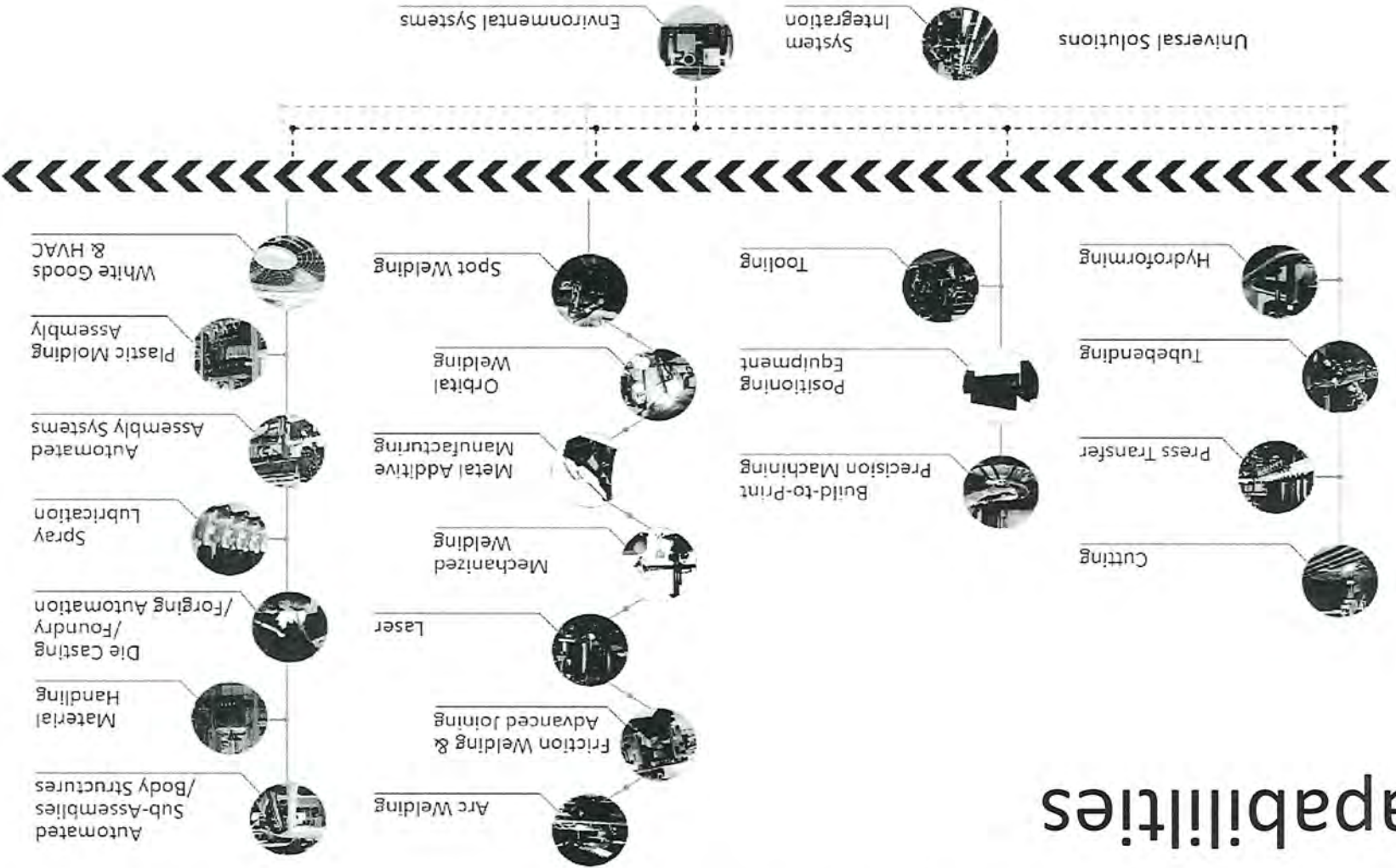
We are the #1 FANUC integrator in the world.

Unwavering Safety & Support.

- >> We have the most RIA certified locations in the world.
- >> Lincoln Electric Service Technicians are also Master Certified, giving 24/7 expert support that keeps you up and running on any shift.
- >> Extended service staff for onsite launch and production support.

LINCOLN ELECTRIC AUTOMATION™

Capabilities



Lincoln Electric Automation, Inc.

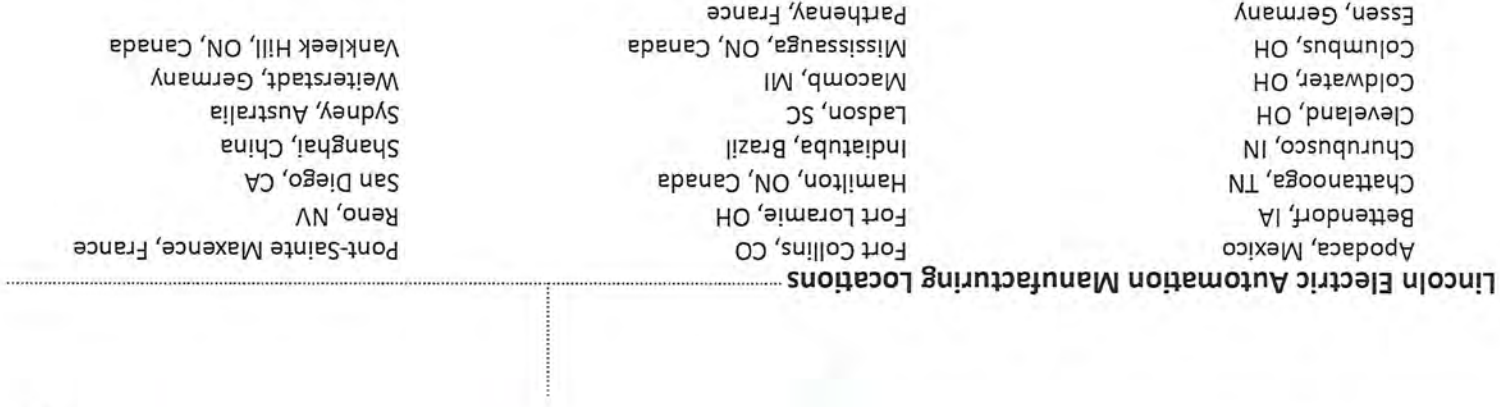
Ability to Install & Service Globally

115

ROBOTIC
technicians

80

MASTER CERTIFIED
SERVICE
technicians



Lincoln Electric Automation Manufacturing Locations

Apodaca, Mexico
Bettendorf, IA
Chattanooga, TN
Churubusco, IN
Cleveland, OH
Coldwater, OH
Columbus, OH
Essen, Germany

Fort Collins, CO
Fort Loramie, OH
Hamilton, ON, Canada
Indatuba, Brazil
Ladson, SC
Macomb, MI
Mississauga, ON, Canada
Parthenay, France

Pont-Sainte Maxence, France
Reno, NV
San Diego, CA
Shanghai, China
Sydney, Australia
Weiterstadt, Germany
Vankleek Hill, ON, Canada

EXECUTIVE SUMMARY

NOTE: PICTURES MAY BE SHOWN WITH OPTIONAL EQUIPMENT.

Proposed Equipment & Services

- > FABMATE™ FT-SS
- > Fixed Table
- > ARC Mate 100iD/12 w/ R-30iB Plus Controller
- > Power Wave® R450
- > AutoDrive® 4R100
- > Magnum® Pro Robotic 550 AC Torch
- > Arc Weld Utility Package
- > Advanced DCS Package
- > Educational Software Package
- > DCS Safe I/O Connect
- > Educational Items
- > Shipping Prepaid
- > Cleveland Based Robotic Training

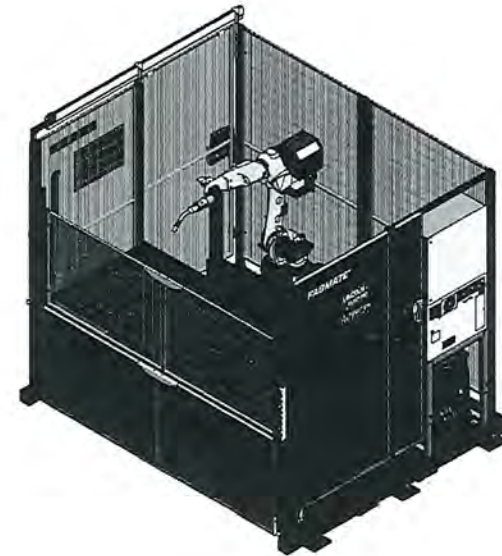
Pricing, Lead Time & Delivery

System:	\$	115,655.00
Tooling:	\$	N/A

Total Investment: *\$ 115,655.00

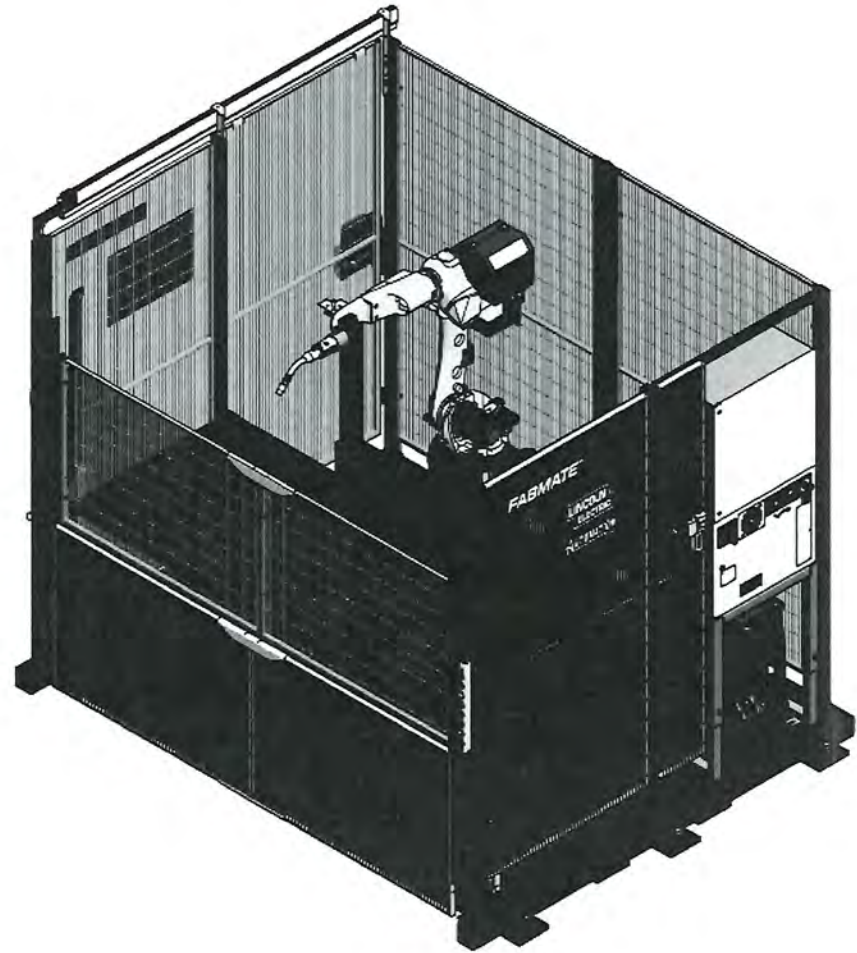
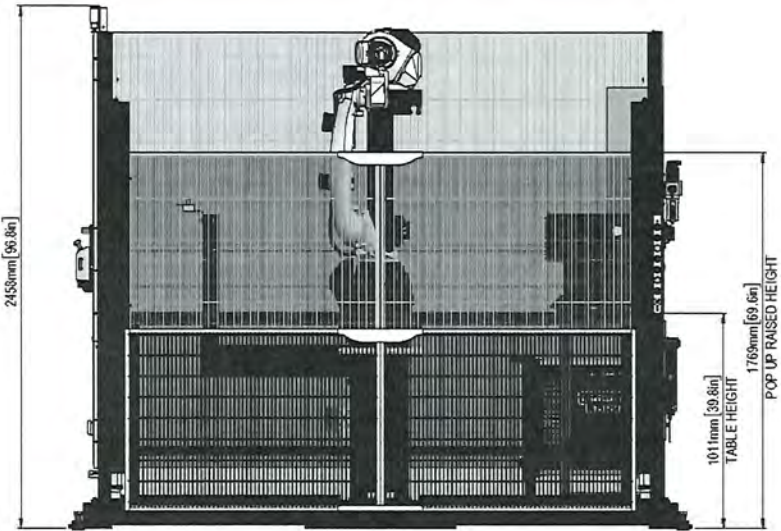
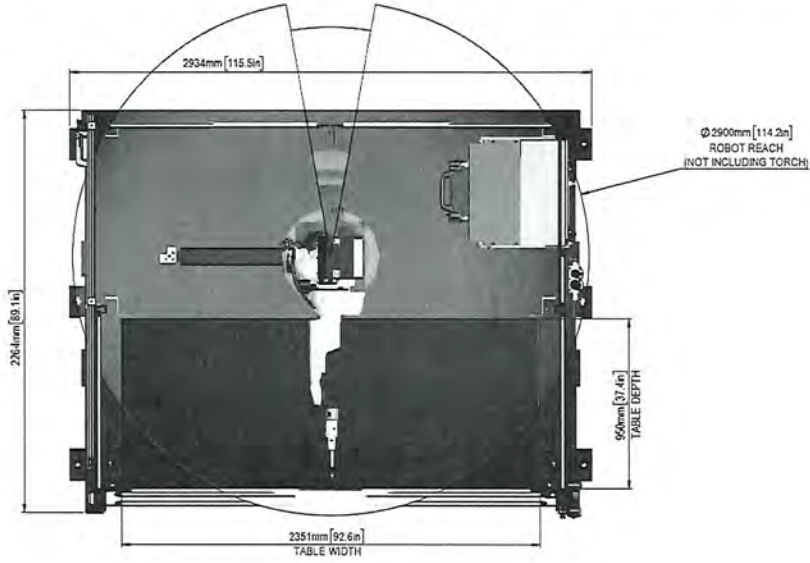
*Price before options available near the end of this proposal

Estimated Lead Time:	16-20 Weeks
Payment Terms:	60% Due with Order 40% Net 30 from Shipment
Shipping Terms:	FOB - Point of Shipment (UCC)



SYSTEM CONCEPT

NOTE: PICTURES MAY BE SHOWN WITH OPTIONAL EQUIPMENT. THESE IMAGES ARE CONCEPTUAL ONLY, PENDING FINAL ENGINEERING AND CUSTOMER APPROVAL.



OPTIONAL FINANCING

Don't let cash flow stand in your way.

We make financing easy.

Lincoln Electric Automation has partnered with ENGS Commercial Finance, a leader in financing for over 65 years. ENGS provides a wide range of lease and financing options to meet the needs of growing businesses.



Ty Erquiaga
Vendor Program Manager
(317) 855-6307
TErquiaga@engsfinance.com

Total Investment: 115,655

Payments starting at: \$1,703.45

based on 84 month terms.

Type in your browser: <https://EngsLincoln.App/>

Additional payment options:

48 months: \$2,729.43

60 months: \$2,249.41

72 months: \$1,930.42

84 months: \$1,703.45

These are estimated, budgetary figures only and are being provided by a third party financial institution (ENGS Commercial Finance Co.). ENGS or any person, firm or entity acting on its behalf is not an agent for and has no authority to bind The Lincoln Electric Company, Lincoln Electric Automation, Inc., or any of their respective affiliates or subsidiaries. Other terms and payment structures may be available upon request from ENGS. For more detailed information related to financing options and tax advice, please consult your financial advisor. This is a proposal only and not a commitment to lend. All proposed terms are subject to credit approval. Any applicable taxes will be added to the payments quoted above. These estimated, budgetary figures are provided as a convenience only. The Lincoln Electric Company and Lincoln Electric Automation, Inc. bear no responsibility or liability for the correctness, assumptions or any party's reliance upon these third party estimated, budgetary figures, and expressly disclaim any injury, harm or loss resulting from any party's reliance upon these estimated, budgetary figures.

Section 179 Tax Savings

After Tax Equipment Cost: \$91,367.45

EQUIPMENT & SERVICES

THE SCOPE OF EQUIPMENT SERVICES FOR THIS PROPOSAL ARE OUTLINED IN THIS SECTION. PICTURES MAY NOT BE EXACT REPRESENTATION OF FINAL DELIVERABLES.

SYSTEM

FABMATE™ FT

Qty 1

The FABMATE™ FT, a pre-engineered single fixed-table system, is ideal for welding small to medium-sized parts that do not require rotation or repositioning. The fixed table standard robotic welding cell is shipped completely assembled, meaning it takes minimal installation.



POSITIONER

Fixed Table

Qty 1

Fixed welding table with Steel plate table top and industrial frame.

Specifications

- Dimensions: 2,200mm x 914mm
- Payload: 1,000KG



ROBOT

ARC Mate 100iD/12 w/ R-30iB Plus Controller

Qty 1

FANUC ARC Mate series welding robot with through-arm design. Includes R-30iB Plus Controller with ArcTool® Software and iPendant Touch Teach Pendant.

Specifications:

- Reach: 1420 mm (56")
- Repeatability: ± 0.02 mm
- Payload: 12 kg
- Input Power: 460/3/60, 30A
Fused at 20A



EQUIPMENT & SERVICES

THE SCOPE OF EQUIPMENT SERVICES FOR THIS PROPOSAL ARE OUTLINED IN THIS SECTION. PICTURES MAY NOT BE EXACT REPRESENTATION OF FINAL DELIVERABLES.

WELDER

Power Wave® R450

Qty 1

The Power Wave® Series delivers high performance technologies and advanced welding processes all rolled into one highly efficient inverter power source designed for robotic welding operations. Includes CheckPoint® Production Monitoring Technology standard.

Specifications:

- Input Power: 208/230/380-415/460/575/3/50/60
- Rated Output: GMAW: 550/41.5V/40%
GMAW: 450/36.5V/100%
GTAW-DC: 550/32V/40%
GTAW-DC: 450/28V/100%



FEEDER

AutoDrive® 4R100

Qty 1

The AutoDrive® 4R100 is an automatic wire feeder for MIG, Pulsed, STT, Flux-cored and Metal-cored wires. The powerful 100 watt motor provides faster acceleration and reliably pulls wire through conduit, while the compact, lightweight package maximizes robot acceleration performance and throughput. No tools are required for drive roll, wire guide or pressure arm adjustment. Includes robot mounting bracket.

Specifications:

- Solid Wire: 0.023"-0.045" (0.6-1.2 mm)
- Cored Wire: 0.035"-0.045" (0.9-1.2 mm)
- Speed range: 50-800 in/min (1.3-20.3 m/min)



TORCH

Magnum® Pro Robotic 550 AC Torch

Qty 1

- 550A air cooled MIG/MAG torch
- 22°, 45°, or 180° removable torch neck
- Mounting bracket is designed to optimize clearance for tough to reach welding applications
- HexConnect™ Gun Bushing : Ensures better electrical conductivity through full face contact as opposed to rotating connections that have single line contact



EQUIPMENT & SERVICES

THE SCOPE OF EQUIPMENT SERVICES FOR THIS PROPOSAL ARE OUTLINED IN THIS SECTION. PICTURES MAY NOT BE EXACT REPRESENTATION OF FINAL DELIVERABLES.

SOFTWARE

Educational Software Bundle

Qty

1

Bump Box Software - Constant Path - Through Arc Seam Tracking (TAST) Touch Sensing - Automatic Error Recovery with Fast Fault Recovery - Lincoln Electric Weld Equipment Library - Menu Utility - Panel Wizard Password Protection - Torch Guard - Fault and Incident Reporting - Lincoln Weld Equipment Library - DCS Speed and Position Package - 4D Graphics - Lincoln America Package - Integrated PMC - KAREL

DCS Safe I/O Connect

Qty

1

DCS Safe I/O Connect is used with DCS Position and Speed Check. It provides access to internal DCS Safe I/O signals including logic to combine signals to enable and disable DCS functions.

SERVICE

Cleveland Based Robotic Training

Qty

1

- Basic Training framework ensures your operator learns the details needed to safely run, maintain, and program your automation system and provides the maximum output. Includes a combination of lab and classroom learning.
 - Basic training classes are 5 days (M-F)
 - Training to take place at Lincoln Electric's Automation Facility in Cleveland, Ohio.
 - All travel and accommodations are the responsibility of the customer.

MISC

Educational System Content

Qty

1

Other Features includes:

- a. Hand shields (PPE), Qty. 10
- b. Complete System Documentation (Digital Copies)
- c. Robotic 3-in-1 welding fixture
- d. Education Cell Project Based Lessons - Book 1

FREIGHT

Shipping Prepaid

Qty

1

Shipping from Lincoln Electric Cleveland, Ohio facility to the customer facility is included in the quote total system price.

EQUIPMENT & SERVICES

THE SCOPE OF EQUIPMENT SERVICES FOR THIS PROPOSAL ARE OUTLINED IN THIS SECTION. PICTURES MAY NOT BE EXACT REPRESENTATION OF FINAL DELIVERABLES.

SOFTWARE

Arc Weld Utility Package

Qty

1

Arc Weld Utility Package includes the following options: RTL-R663 Constant Path, RTL-R661 Lincoln Weld Library, RTL-R787 Lincoln America Package, RTL-J681 Torch Guard, RTL-R594 Panel Wizard, RTL-J760 Integrated PMC, and RTL-R786 Jog Retract & Return.

SOFTWARE

DCS Safe I/O Connect

Qty

1

DCS Safe I/O Connect is used with DCS Position and Speed Check. It provides access to internal DCS Safe I/O signals including logic to combine signals to enable and disable DCS functions.

SERVICE

Cleveland Based Robotic Training

Qty

1

- Basic Training framework ensures your operator learns the details needed to safely run, maintain, and program your automation system and provides the maximum output. Includes a combination of lab and classroom learning.
 - Basic training classes are 5 days (M-F)
 - Training to take place at Lincoln Electric's Automation Facility in Cleveland, Ohio.
 - All travel and accommodations are the responsibility of the customer.

DELIVERY

Delivery dates are approximate. Upon receipt of Customer's purchase order and initial payment, delivery date and other terms will be confirmed through Lincoln Electric Automation acceptance. Delivery dates are based upon receipt of all necessary information, inputs, approvals, materials, items and/or products from the customer. Any delays by the customer will result in changes to the delivery dates, which will be reflected on an Engineering Change Order (ECO) process.

NOTICE: THIS PROPOSAL IS CONTINGENT ON A LACK OF IMPACT BY THE CORONAVIRUS PANDEMIC. Given the existence of the coronavirus pandemic, Lincoln Electric Automation™ will use its best efforts to manufacture, staff and service this project to meet the scheduled delivery date(s). However, Lincoln Electric Automation™ reserves its right to extend the delivery date/time if Lincoln Electric Automation™ is unable to perform or its subcontractors or suppliers fail to perform on time due to illness, supply shortages or governmental restraints on business, travel and/or assembly. In the event of such a suspension/delay, Lincoln Electric Automation™ shall not be in default for failure to perform and shall not be liable for loss, damage, detention or delay. To the extent that the project is suspended by the Buyer, Lincoln Electric Automation™ reserves its right to seek additional costs associated with the suspension.

Statement Regarding Fanuc Supply Chain Issues: Lead times and delivery dates in this quote and any change order or modification thereto are non-binding estimates and subject to Fanuc's ("Fanuc") ability to deliver robotic equipment in a timely manner. The Fanuc supply chain is severely impacted by the current economic conditions; Fanuc lead times and delivery dates are consistently delayed. By submitting a purchase order, Buyer acknowledges and understands that Lincoln Electric Automation, Inc. ("Lincoln"): (a) has no control or input into the Fanuc supply chain issues and resulting lead time and delivery date delays, and (b) is not liable under any theory of law or equity for deliveries that occur later than the non-binding estimated delivery date reflected in this quote as a result of Fanuc shortcomings. For lead time sensitive projects, Lincoln recommends and can provide quotes for comparable systems utilizing products and services from ABB Robotics or another alternate supplier."

Lincoln Electric Automation, Inc., Statement Regarding Supply Chain Issues: Lead times and delivery dates in this quote and any change order or modification thereto are non-binding estimates and subject to Lincoln Electric Automation's suppliers ability to deliver in a timely manner. The current supply chain is severely impacted due to the current economic conditions as a result of the Coronavirus pandemic. By submitting a purchase order, Buyer acknowledges and understands that Lincoln Electric Automation, Inc. ("Lincoln"): (a) has no control or input to supply chain issues and resulting lead time and delivery date delays, and (b) is not liable under any theory of law or equity for deliveries that occur later than the non-binding estimated delivery date reflected in this quote as a result of the shortcomings of OEMs and 3rd party suppliers.

Estimated Lead Time: 16-20 Weeks ARO- After Customer's Receipt of Lincoln Electric Automation's Order Acknowledgment
Estimated delivery will be confirmed at order acknowledgment

Shipping Terms: FOB- Point of Shipment (UCC)

PAYMENT TERMS

Automation Division terms for a robotic system or parts order are 60% due with order and 40% due net-30 days after shipment, unless otherwise approved by Lincoln Electric Management. A purchase order that is to be issued for this project should be submitted to the following:

The Lincoln Electric Company Cleveland
Automation Division
22221 Saint Clair Ave.
Cleveland, OH 44117

ASSUMPTIONS & CUSTOMER RESPONSIBILITIES

ANY VARIATION FROM THE BELOW ASSUMPTIONS AND RESPONSIBILITIES LIMITS THE LIABILITY OF LINCOLN ELECTRIC.

- » Any interruptions caused by the customer due to prolonged delivery of requested information is subject to delays of project deliverables. In some cases, delays may be longer than the duration the information is withheld due to resource scheduling and availability.
- » Weld quality is a function of product tolerances and condition. Variance outside the range of that qualified in any process development activity may cause degradation in weld quality. Gaps are not to exceed one-half of the wire diameter. Surface defects such as rust will also affect weld quality and process speeds. All parts shall be pre-audited prior to robot welding. All gap conditions, excessive mill scale, rust or other contaminants will be fixed or cleaned prior to robot welding. Stringers and tacks shall be done manually with a matching or compatible filler wire.
- » No fume filtration solutions are included at this time. It is the responsibility of the customer to ensure that measures are in place to reduce exposure to HAPs. If proper fume extraction does not currently exist, Lincoln Electric can supply integrated filtration solutions on request that meet the National Emission Standards for Hazardous Air Pollutants.
- » Items that are specifically designed towards ergonomics are explicitly stated in the respective proposal items. It is the responsibility of the customer to provide the proper additional ancillary equipment that supports ergonomic operation of the proposed equipment or Lincoln Electric can provide, on request, additional equipment to support more ergonomic operation as discovered.
- » Customer is to provide and install necessary isolation transformers if need
- » Customer is to acquire proper training to program and maintain the system
- » At this time, Lincoln Electric Automation™ has not been made aware of any particular customer/plant specifications. Therefore, all equipment covered in this proposal will be per Lincoln Electric Automation™ engineering practices and standards.
- » Three phase power, air gas supply, and other required utilities are the responsibility of the customer.
- » The customer is to provide accurate and complete list of all parts in scope as well as CAD models and drawings for each part. Drawings must show tolerances and weld callouts. If tack and/or hold and locate fixtures are to be provided, individual drawings with tolerances will be required for each piece part being held. Any additional design or re-work caused by variance or changes of parts compared to the models and/or drawings originally provided by the customer are subject to additional charges.

ENGINEERING CHANGE ORDERS

Changes to the technical specifications, part tolerances, design or delivery, requested by the customer may modify the price, technical description, and delivery of the equipment quoted. The buyer is to notify Lincoln Electric Automation™ in writing of any change requests, provide new drawings indicating the changes, and a written description of the changes. Lincoln Electric Automation™ will then estimate the costs for changes, including the cost plus reasonable markup for any work provided by Lincoln Electric Automation™, and also any purchase parts that will no longer be used due to the changes. The customer must authorize or reject the changes in cost within ten days of Lincoln Electric Automation™ sending them confirmation of the changes.

OPTIONAL EQUIPMENT & SERVICES

OPTION PRICES ARE VALID ONLY WITH THE INITIAL PURCHASE

Upgrade to Water Cooled Torch

QTY	Price
1	\$6,500.00

Includes:

- Cool Arc® 55s Water Cooler
 - Rugged water cooler with integrated flow switch capable of cooling torches rated up to 500A
- Magnum® Pro Robotic 550A Water-Cooled Torch
 - 22°, 45°, or 180° removable torch neck
 - Mounting bracket designed to optimize clearance for tough to reach welding applications
 - HexConnect™ Gun Bushing for better electrical conductivity through full face contact as opposed to rotating connections that have single line contact

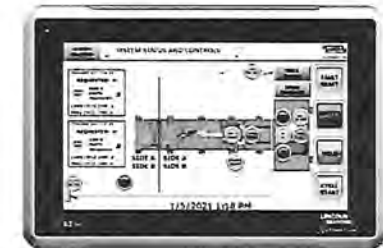


Upgrade to Fabmate Cell Controller

1	\$7,075.00
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The HMI Cell Control is an affordable, entry level operator interface engineered option created specifically for Fabmate™ Systems, that allows operators to graphically control and monitor all features in real time, Includes :

- High performance industrial 10" HMI wide screen
- Color Touch Panel Display
- Live graphical view of system status (includes live welding data trends)
- System control buttons and selectors
- Active alarms and alarms history screen
- Programs selection screens (up to 240 programs per Zone)
- Services programs selection screen (up to 12 programs)
 - Reaming and Wire Clipping Routine
 - Torch Mate Tool Center Point Calibration
 - Robot torch service position
- Live status screens of system internal and external I/O points and peripheral devices
- Manuals and schematics screen



OPTIONAL EQUIPMENT & SERVICES

OPTION PRICES ARE VALID ONLY WITH THE INITIAL PURCHASE

	QTY	Price
Three Year FANUC Robot Extended Warranty	1	\$5,000.00

Three Year FANUC Motor Extended Warranty	1	\$1,000.00
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ONLY if motor is purchased from Option Section

Single Point Power Disconnect Panel	1	\$3,300.00
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480V, 3-phase, 100A disconnect panel capable of supplying up to 1 robot and 1 power source. This panel simplifies connection of power to the robotic system at the customer facility. A standard system will require a separate power drop to each robot and power source. The disconnect panel option will require only one power drop, splitting the connection to each robot and power source.

- Constructed per NFPA-70 (NEC) Article 409
- Lockout/Tagout (LOTO) ready.



Lincoln Electric Power REAM® II	1	\$6,950.00
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Power REAM® robotic torch maintenance station

- 5/8" reamer bit included
- Antispatter fluid spray unit
- Pneumatic wire clipper
- Includes anti-spatter fluid



OPTIONAL EQUIPMENT & SERVICES

OPTION PRICES ARE VALID ONLY WITH THE INITIAL PURCHASE

QTY	Price
1	\$11,150.00

Head Stock Positioner & Coordinated Motion Software (Single Robot)

FANUC single axis, hollow, headstock positioner for part indexing or continuous welding (i.e. pipe or tank). Includes servo-motor, gear reducer, housing and machined faceplate for connection of tooling.

Specifications

- Payload: 500 kg



1	\$4,930.00
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Fume Extraction Hood (Hood Only)

- Sheet Metal Fume Hood to fit the workcell surround enclosure
- Light kit to provide ambient light inside the workcell
- No connecting hose/duct included
- Fume Extraction is the responsibility of the customer, not included.



1	\$35,164.00
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Fume Extraction-System (Hood + Extraction Unit)

- Sheet Metal Fume Hood to fit the workcell surround enclosure
- Light kit to provide ambient light inside the workcell
- Prism™ series fume extractor, designed for less noise, lower costs and maximum results
- Note: Final site ducting connections are the responsibility of customer



CUSTOMER SERVICE

WE'RE HERE WHEN YOU NEED US

Lincoln Electric technician experts are ready to help you around the clock. From installation to equipment refurbishment—our technicians have the expertise to address your specific needs.

All of our customer support technicians, training experts, and manufacturing facilities are based in the United States. We're here for you when you need us.

INSTALLATION START-UP SUPPORT

Lincoln Electric can speed up the process of starting production. We offer engineers with extensive experience in installation to help ensure a smooth and efficient start-up.

BENEFITS:

- Increase in performance and uptime
- Increase in reliability and efficiency
- Reduction in installation time and start-up time

PREVENTIVE MAINTENANCE

Lincoln Electric takes a very proactive approach to avoiding potential crashes, extending robot life, and ensuring optimal performance of your robotic system. The experts at Lincoln Electric offer an extensive Preventive Maintenance service that includes a detailed inspection, cleaning, lubricating, and testing to confirm that your robot is in the highest performing condition. After completing a full inspection, we will recommend and replace any worn parts if needed.

BENEFITS:

- Unparalleled 60 point inspection improves the life cycle of robot system
- Improves robot uptime productivity
- Reduced cost of ownership
- Peace of mind knowing your investment is running in top form

REPAIRS

At Lincoln Electric, we understand that a down robot can cause a manufacturing halt, resulting in a loss of production and ultimately revenue. This is exactly why we make customer service a top priority. Our experienced and knowledgeable service staff will work diligently with you to find the ideal solution for your robotic issues.

Our service personnel have decades of experience and knowledge, and have set the industry standard for great service. This select group of individuals are the best in the industry and are on-call 24 hours a day, 7 days a week to respond in a moment's notice. With continuous training and improvement, our customer service engineers stay ahead of new technology, allowing us to provide world-class service anywhere Lincoln Electric systems are installed.

TRAINING

With training courses offered by Lincoln Electric, you will discover ways to positively impact your business by enhancing productivity, reducing risk of failures due to human error, increase product quality and learn preventive maintenance. Courses offered include basic and advanced programming, Service and Maintenance, and WeldPro.

PARTS

We understand the smallest part can have a huge impact if the part is no longer functioning. Many parts and supplies we provide have a 24-hour turnaround time to keep your downtime to a minimum. Just give us a call; we will get you what you need.

WE'RE HERE WHEN YOU NEED US 24/7/365

Automation_Service_Dept@Lincoln Electric.com
1-888-935-3878

TERMS AND CONDITIONS

This quote is valid for 30 days, and is governed by Seller's Terms attached hereto and/or located within "Terms Conditions of Sales - Automation Solutions" at <https://www.lincolnelectric.com/en-us/company/legal/Pages/legal.aspx>. Any reference to Customer's request for quote incorporates only the technical information described therein. All terms and conditions in Customer's request for proposal/quote are hereby expressly rejected.

This proposal contains proprietary and confidential information of Lincoln Electric Automation™, and shall not be used, disclosed or reproduced, in whole or in part, for any purpose other than to evaluate this proposal, without the prior written consent of Lincoln Electric Automation™. Title in and to this document and all information contained herein remains at all times in Lincoln Electric Automation™.

NOTICE TO RECIPIENTS

Lincoln Electric Automation reserves the right to engineer, manufacture and integrate some or all of the proposed content at any Lincoln Electric Automation facility in the United States.

In consideration of Lincoln Electric Automation's preparation of this proposal and disclosure of certain proprietary information, its recipient agrees to treat as confidential all of Lincoln Electric Automation's proprietary information disclosed herein. Such proprietary information includes, but is not limited to, all technical requirements, specification, prints, and information relating to the description and operation of the system which is the subject of this proposal, its components, equipment, options and related services, designs, processes, techniques, documentation, pricing, installation, and safety.

The recipient further acknowledges that Lincoln Electric Automation's proprietary information is unique and valuable, was developed or acquired by Lincoln Electric Automation at substantial expense, and is the subject of efforts by Lincoln Electric Automation to maintain the secrecy thereof. The recipient agrees not to reverse engineer, to use or to disclose this proprietary information to any person or party without the prior written consent of Lincoln Electric Automation. This agreement is effective between the recipient and Lincoln Electric Automation regardless of whether the parties enter into a contract for sale of the goods or services that are the subject matter of this proposal.