

INDIANATECH****
1600 E Washington Blvd
Fort Wayne, Indiana 46803

BID FOR ONE (1) Connected Smart Manufacturing Systems-4 Robot Cell
Reference Number: 230944RC

RFQ Due Date:	April 25, 2023
Approximate Equipment Delivery Date:	August 31, 2023
Start of Installation (on or before)	September 18, 2023
Completion Date (on or before)	September 29, 2023

Base Bid Includes:

- One (1) Connected Smart Manufacturing Systems-4 Robot Cell
- All accessories (if applicable) as listed in specifications.
- Freight delivered to Indiana Tech, Fort Wayne, Indiana

THE BIDDER AGREES TO:

1. Hold the bid open for 30 calendar days after bid opening date.
 2. Bidders cannot appear on the Federal Excluded Parties List and are declared eligible for awarding of the bid.
 3. The successful bidder agrees to deliver one (1) Connected Smart Manufacturing Systems-4 Robot Cell to Indiana Tech in new condition within 160 days of receiving notice of awarding of the bid.
 4. The successful bidder will deliver (or arrange shipment), unpack, set-up and calibrate equipment for Indiana Tech.
 5. Successful bidder must also perform basic operating training to faculty and staff on the use of the equipment.
 6. The successful bidder will be required to complete Federal Lobbying Restriction Forms
- Bid opening will be April 11, 2023.
 - Public bid notification can be found at www.indianatech.edu/purchasing/
 - Bid forms are to be submitted to purchasing@indianatech.edu.

Direct questions or concerns pertaining to the bidding of this equipment to Mark Hunsberger Director of Procurement, at Indiana Tech or by calling (260) 422-5561 ext. 3451.

Scope

A. Summary

This cell will simulate the machining of a product, assembly, and package a final product consisting of several components including machining, etching, assembly and package into an appropriate box. This cell will highlight machining technology in a simulated environment by

using a 3-axis CNC vertical milling machining (actual or simulated). The cell will also highlight, vision-guided assembly, and product finishing.

Students will be exposed to the following topics:

- Maintenance techniques, maintenance and operation of various industrial components, quality control and testing, material handling protocols, and proper usage of tools and instrumentation.
- Troubleshooting and repair on equipment used in industrial automated settings.
- DC circuits, motor controls, fundamentals of hydraulics and pneumatics
- Fundamentals of Computer Numerical Control (CNC)
- Controls theory
- Programmable Logic Controllers (PLCs), automation and robotics applications
- Integration of automation sub-systems

B. Provide equipment that meets or exceeds the following specifications

Connected Smart Manufacturing System – 4 Robot Cell:

1. Capabilities: This trainer will simulate the machining of a product, assemble, and package of multiple components into an appropriate box. The system should be comprised of 4 cells (“Stations”) minimum.
2. Must include a CNC machining process (actual or simulated)
3. Must include an etching process (preferably laser-based)
4. Must include a minimum of 4 programmable robotic arms, electrically driven (one in each station)
5. PLC and PLC interface to robots over Ethernet IP
6. At least one station should have a conveyor system (belt preferably).
7. Sufficient materials for 100 (minimum) complete training projects
8. Software (robotic arms and PLC)

Please note: Contractors are hereby notified that they are encouraged, to the greatest extent practicable, to purchase American-made equipment and products with funding provided under this award.

C. Coordinate the installation and commissioning

1. Assist with floor plan layout for lab for space optimization.
2. Setup of equipment to ensure it is properly calibrated and functioning correctly.
3. Provide training to faculty and staff of Indiana Tech.

Payments:

- Payment will be made within thirty (30) days after receipt of invoice - after equipment delivery, installation, and commissioning.

Bid Approval:

- Bidders are to HOLD the bid price and Lead Time for 60 days from the bid date.

Tax Exemptions:

- The undersigned Bidder has informed themselves of the tax-exempt status of the Owner, and therefore, has not included these taxes in his Lump Sum Base Bid price.

Questions during Bidding:

- Direct any question to purchasing@indianatech.edu and they will be forwarded to the appropriate person at Indiana Tech.

INDIANA**TECH**

BID FORM

BID FOR ONE (1) Connected Smart Manufacturing Systems-4 Robot Cell **Reference Number: 230944RC**

To: Indiana Tech – Fort Wayne, IN

From: Bidders Name: _____

Address: _____

City, State & Zip Code: _____

Phone Number: _____ Date: _____

Signature: _____

For: (1) Connected Smart Manufacturing Learning System 4-Robot Cell

Item	Amount (Numerals)	Amount (Written)
3D Metal Desktop Printers	\$	dollars
Shipping / Handling	\$	dollars
Set up and Training	\$	dollars
Other	\$	dollars
Total Lump Sum Bid Price:	\$	dollars

Item	Weeks
Delivery Lead Time from date of Indiana Tech issuing PO	

1. Bidders are to HOLD the bid price and lead time for 60 days from the bid date.
2. The undersigned Bidder has informed themselves of the tax-exempt status of the Owner, and therefore, has not included these taxes in his Lump Sum Bid Price.