


# HTE AUTOMATION

a division of HTE Technologies



- **ROBOTS – INDUSTRIAL**
- **ROBOTS – COLLABORATIVE**
- **ROBOTS – MOBILE**
- **MACHINE VISION & SMART SENSORS**
- **ID MARKING, READING, PARTS TRACEABILITY**
- **AUTOMATION & MOTION CONTROL**
- **CONVEYORS & PARTS FEEDERS**
- **INDUSTRIAL PC, PLC, & HMI**
- **MACHINE SAFETY & GUARDING**
- **STRUCTURAL FRAMING ENCLOSURES**
- **ELECTRICAL ENCLOSURES & PANEL ASSEMBLY**
- **IIoT CONNECTIVITY – LOCAL & WIRELESS REMOTE**

**HTE**   
**AUTOMATION**

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**WHY HTE FOR ROBOTICS?**

- Every discussion starts by fully understanding what you need to have happen with an identified task.
- HTE features robotic solutions using 5 distinct robotic technologies allowing us to optimally meet your application’s needs.
- Our team of application engineers is experienced at applying robots in untapped non-traditional applications.
- We integrate technologies for complete solutions using a broad selection of the equipment that surrounds every robot, enabling you to deal with a single supplier.



**LOCAL  
 SUPPLY • SERVICE  
 SUPPORT**

**Start with Proof of Functional Success**

- Proper Load Sizing
- Identify & Meet Speed Requirements
- Select Optimal End-of-Arm Tooling
- Ensure Worker Safety

**Ongoing Local Life-Cycle Support**

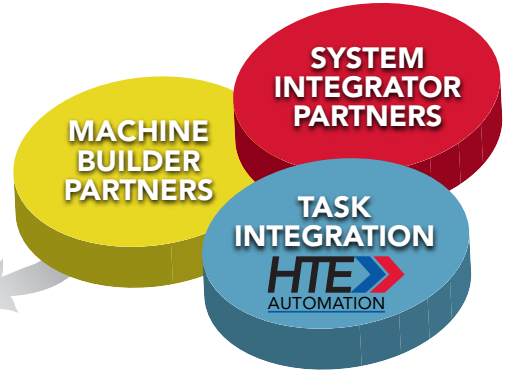
- Warranty Support
- Software Upgrades
- New Task Integration
- On-Site Discovery “Audit” Walk-Throughs



**WHAT'S  
 YOUR  
 CHALLENGE?**

Achieve Better Product Consistency  
 Optimize Very Long Milling Cycle  
 Free Talent Up for More Complex Tasks

No Space for Safety Caging  
 Eliminate Staffing Shortages  
 Eliminate Bottlenecks  
 Increase Product Quality  
 Reduce Scrap



**WORK CELL  
 ACCELERATION  
 REVIEW**

To maximize your productivity, flexibility, quality, and safety goals, we will conduct a complimentary work cell acceleration review in your plant.

**Call Now To Schedule: 800.444.4831**

**Exceptionally small footprint requiring no permanent floorspace**

# ACTIVITY WITH OUR AUTOMATION TECHTEAM

## DEFINITIONS

### cobot

[koh-buh t, -bot], noun

A computer-controlled robotic apparatus that assists a human worker, as on an assembly line.  
word origin – co(laborative) (ro)bot

### transportbot

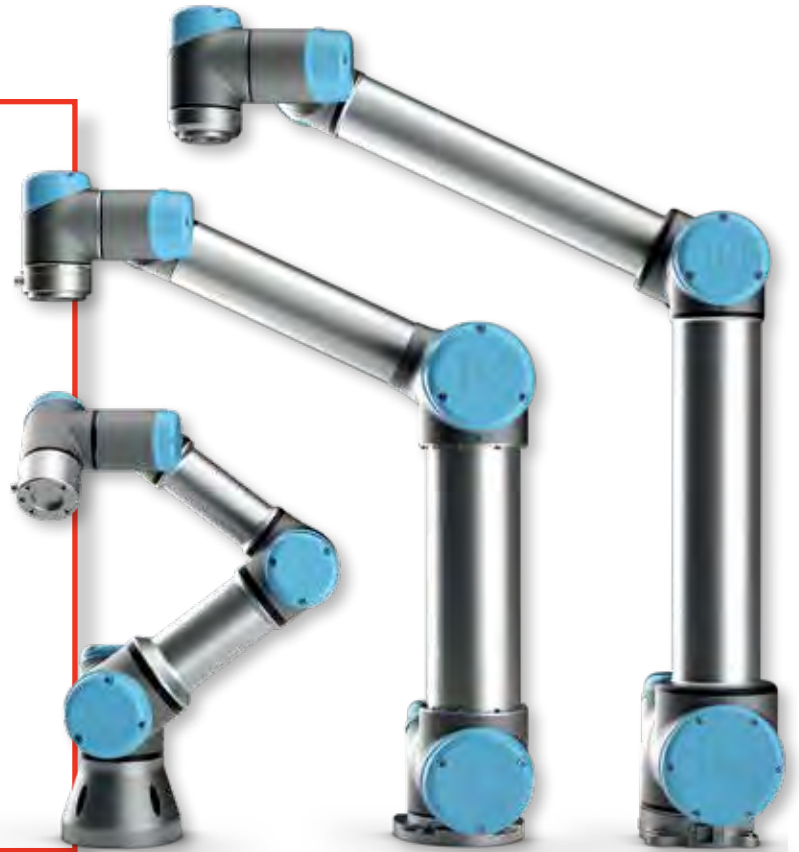
noun

A mobile, computer-controlled robotic apparatus that assists a human worker, as in logistical tasks. alt. Autonomous Mobile Robot.  
word origin – transport (ro)bot

### IIoT

noun

Industrial Internet of Things, the use of Internet of Things (IoT) technologies in manufacturing. IIoT incorporates machine learning and big data technology, harnessing the sensor data, machine-to-machine (M2M) communication and automation technologies that have existed in industrial settings for years.



## WHY COBOTS vs. ROBOTS

- **Unbeatable ROI of 6 months or less on many projects**
- Level 4 Collaborative = Safe Working Environment
- Ultra-high degree of flexibility
- Unmatched interface simplicity
- Quickly and economically automate boring tasks
- Initial setup is easy
- Sets a defined work cadence for all workers on the same line
- Easily re-tasked between or during shifts
- High degree of E-O-A-T (End-of-Arm Tooling) flexibility
- Less space required – **rarely guarded**
- Reduce workplace repetitive action injuries

ALL  
"OUTSIDE  
THE  
CAGE!"

It's all about

# ROI

ASK ABOUT THIS  
**TRANSFORMATIVE  
TECHNOLOGY**

DELIVERING

# 3 to 6 MONTH ROI





## ROBOTICS



**Universal Robots** Collaborative industrial robot that teams up with people outside of safety cages, and requires no expensive programming or integration. Empowering People is the focus of Universal Robots.



**Epson** Industrial robots that offer super high precision, high speed, high performance, ease of use and overall value. Epson's focus is on simplicity of use, as you will learn when viewing the EPSON RC+ Software



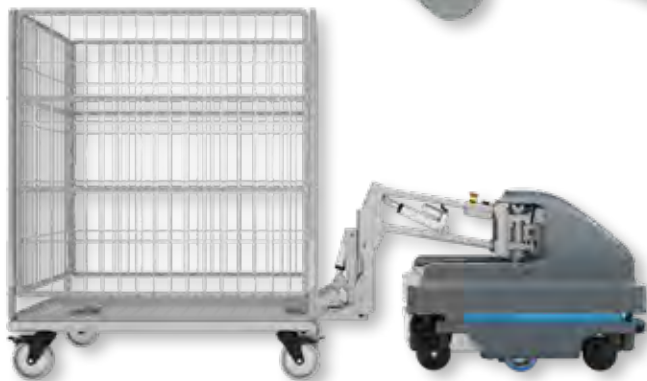
**Precise Automation** Automate processes that could never be automated before by working with collaborative robots, designed to work with people on an assembly line. Guidance Motion Controllers enable collaborative control to other robot configurations



**Intelligent Actuator (IAI)** Easy-to-Use Programmable Actuators (RoboCylinder), Multi-axis Cartesian Systems, Scara Robots, Servo Grippers



**Mobile Industrial Robots (MiR)** Autonomous Mobile Robots for automation of internal transport and logistics solutions. Optimize workflows, increase productivity, reduce costs, all with a rapid ROI of less than 1 year





## END-OF-ARM TOOLING (EOAT)



**Robotiq** Rapid robot deployment with Robotiq's plug and play end-effector solutions makes them the go-to choice for highly competitive manufacturers.



**Coval Vacuum Technology** Becoming the World's Leading Solution Provider of Vacuum Automation Technology

**Reiku** Cable Management and Protection Solutions

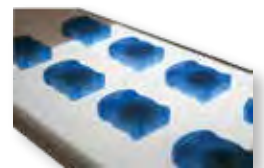
**Swivellink** Intelligently Designed Mounting Systems



## CONVEYORS & PARTS FEEDERS



**Dorner** Conveyors for small, medium or large parts in modular and flexible configurations, precision and sanitary conveyors for food or pharma, heavy-duty industrial bulk, or precision handling requirements



**Fortville Feeders** Leading provider of custom-built feeder bowl systems, bulk storage hoppers, elevators and gondola systems, sound enclosures, escapements, tracking systems, and end-of-line mechanisms







## MACHINE VISION & SMART SENSORS

**COGNEX**

**Cognex** 2D and 3D Machine Vision Systems, "Checker" Simple Image-Based Inspection Systems, Dataman Image-Based 1D and 2D Code Readers

**BALLUFF**

**Balluff** Product Detection Sensors (Proximity, Photo-Electric, Ultrasonic, Laser), Linear Measurement, Light Array Measurement, and Encoder Systems



**Baumer** Vision, Presence and Distance Sensors, Rotary Encoders, Angle Measurement, I.D. and Image Processing



**Tri-Tronics** High-Speed, High-Resolution Fiber Optic Sensors, Color Sensors, General Purpose Optical Sensors

**Fraba** Absolute Rotary Encoders, Fieldbus Systems, Industrial Ethernet Protocols, Inclometers, Non-contact Speed Sensors

**Heidenhain** Measurement and Control Technology for Demanding Positioning Tasks



## LIGHTING, LENSING, & FILTERING

**MORITEX**  
Vision Creating Value

**Moritex** Machine Vision Lenses and Lighting Systems

 **smart vision lights**

**Smart Vision Lights** Machine Vision Lighting and Filters

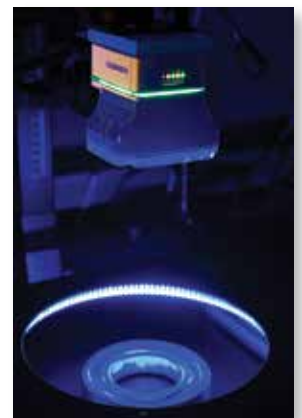
**NAVITAR**

**Navitar** Precision Lenses for Industrial Vision Applications

**Edmund Optics** Precision Lenses for Industrial Vision

**Midwest Optics** Machine Vision Filters

**CCS Inc.** Machine Vision Lighting





## ID MARKING – READING – PARTS TRACEABILITY

**COGNEX**

**Cognex** Dataman Image-Based Bar Code Readers, Camera-Based Optical Character Recognition, Handheld Bar Code Readers

**BALLUFF**

**Balluff** RFID Systems, High Durability ID Tags, Inductive ID Systems



**LNA Laser Technology** Part Marking Fiber Lasers, Welding Lasers, Bare Lasers and Full Systems Available



**HTE Assembled Solutions** Custom Designed Laser Marking Stations Integrated Into Your Workflow, Custom Designed RFID Turnkey System Development, Training, Installation



## MACHINE SAFETY & GUARDING

**ABB**

**ABB Jokab Safety** PLCs, Safety Light Curtains, Stop Time Analyzers, Non-contact Safety Sensors, Interlocks, Switches, Monitoring Relays, Safety Mats and Perimeter Guarding Systems

**BALLUFF**

**Balluff** Robot-Based Limit Switches



**Parco** T-Slotted Aluminum Extrusion, Structural Framing, Grooved or Smooth Profiles, Kits, Full Assemblies, 3D Designer

**Wirecrafters** Machine Guarding Systems







## IIoT CONNECTIVITY & IN-PANEL PRODUCTS



**ABB Low Voltage Products** Contactors, Starters, Disconnects, and Fuses



**Advantech** Industrial PC, WEB-OP, HMIs, Communications Gateways, Managed and Unmanaged Ethernet Switches



**Balluff** Industrial Cordsets, Active (Network) and Passive Sensor Interface Blocks, Non-contact Power and Signal Transmission, Power Supplies



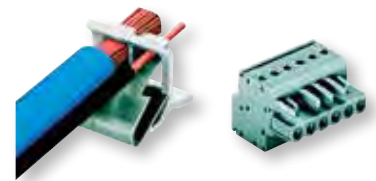
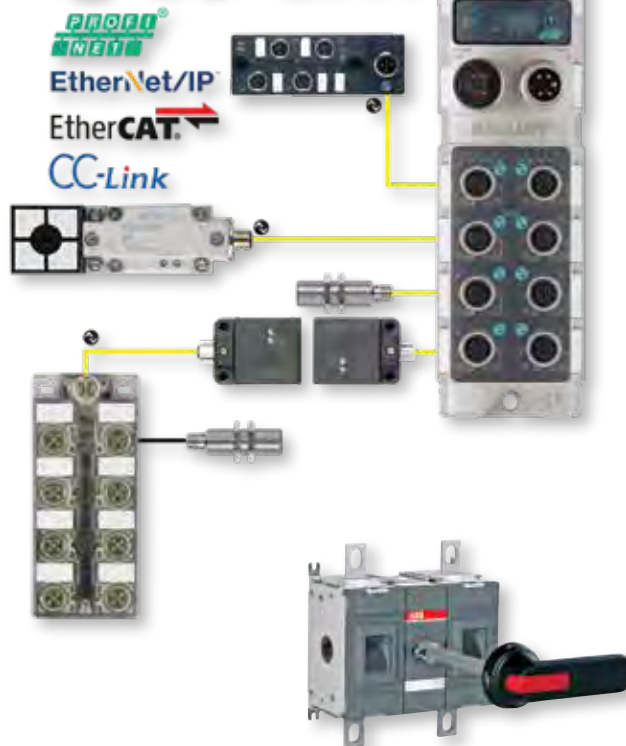
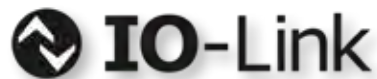
**Murrelektronik** Industrial Cordsets and Connectors, Active (Network) and Passive Interface Blocks, Power Supplies and Conditioners, Panel Interfaces



**MB Connect Line** Ideas and Solutions for Remote Maintenance and Monitoring



**Wago** Din Rail Terminal Blocks with Cage Clamp® Technology, Field I/O Systems, Programmable Network Interfaces, Power Supplies







## ELECTRICAL ENCLOSURES & STRUCTURAL FRAMING



**Rittal Systems** Industrial Enclosures (Free-Standing Modular, Wall-Mount, Junction Box, Stainless Steel)

**Schaefer's Electrical Enclosures** Standard and Custom Enclosures Including Stainless Steel, To Suit Your OEM Needs

**Parco** T-Slotted Aluminum Extrusion, Structural Framing, Grooved or Smooth Profiles, Kits, Full Assemblies, 3D Designer



## ENCLOSURE CLIMATE CONTROLS



**Rittal System Climate Control** Roof Mounted, Top Mounted, Wall-Mounted, Re-cooling Systems, Air / Water Heat Exchangers, Water / Water Heat Exchangers





## AUTOMATION & MOTION CONTROL



**Mitsubishi PLC** Programmable Logic Controllers, Safety Controllers – Stand-Alone or Rack-Mounted



**Mitsubishi HMI** OIT, Soft GOT, PC Software

**Mitsubishi Servo** Servo Systems, Motion Controllers, Servo Motors, Linear Motors



**Mitsubishi VFD** Variable Frequency Drives – Fractional HP – 1,000+ HP



**Advantech** Rugged Industrial PCs, Touch Screens, Touch Screen Computers, Ethernet Switches, Network Interface Adapters



**AMP (Applied Motion Products)** Stepper Motor Drives, Two-Phase Hybrid Step Motors, Encoder-Feedback Stepper Drives, Integrated Drives + Motors



**Animatics** SmartMotors: All-in-One Motor/Control Systems. Advanced Communication and Motion in an All-in-One Package

**Apex Dynamics** Precision Planetary Gear Heads, Fast, Affordable, Precision, Straight and Right-Angle



**R+W Coupling Technology** Precision Servo Couplings, Mechanical Torque Limiters, High Stiffness Torque Tubes and Jack Shafts

**Wago** Programmable I/O to Support All Major Network Interfaces, Industrial PCs

**WorldWide Electric** Affordable AC Induction Motors, DC Motors



## MECHANICAL ACTUATORS

**Accu-Tech USA** Smooth Acting, Precise and Long Lasting Linear Guides and Ballscrews

**Tolomatic** Electric Linear Motion Control

**Isel Automation** Linear Ball Screw and Other Slides

**Nook** Linear Motion Systems







The HTE **TECHTEAM** is an engineering collaboration focused on delivering leading edge manufacturing solutions for maximizing factory throughput with the goal of increasing your global competitiveness.

## OUR HTE **TECHTEAM** SERVICES

We provide you with comprehensive engineering skill sets and broad industry application experience earned over many years applying a broad range of technologies to industrial applications including:

- On-site discovery "Audit" walk-throughs in your production plant
- Cooperative "proof of functional success" automation project evaluation
- Robot specification, programming and implementation
- Robot life cycle warranty support, software upgrade assistance, new task integration
- Machine vision system application, verification and training
- Product traceability system application, verification and training
- Direct part marking sample processing
- Contract marking services
- PLC training and hands-on programming
- Technical skill training services
- Cooperative OEM design / build / program / test
- Collaboration services with specialty integrators
- Custom panel test and assembly





## SUPPLIERS

ABB Low Voltage  
ABB Safety  
Accu-Tech USA  
Advanced Illumination  
Advantech  
Animatics  
Apex Dynamics  
Applied Motion Products  
Azbil  
Balluff  
Baumer  
Bison Gear  
CCS Inc.  
Cognex  
Coval  
Dorner Conveyor  
Edmund Optics  
EMI Corp.  
Epson Robots

Fortville Feeders  
Fraba  
Fujinon  
Heidenhain  
IAI (Intelligent Actuator)  
Intermec  
Isel Automation  
LNA Laser Technology  
MB Connect  
Metaphase  
Midwest Optics  
MiR Robots  
Mitsubishi Electric Automation  
Moritex  
Murrelektronik  
Nabtesco  
Navitar  
Nook  
Parco

Precise Automation  
Reiku  
Rittal  
Robotiq  
R+W Coupling Technology  
Schaefer's Electrical Cabinets  
Smart Vision Lights  
Spectrum Illumination  
Swivellink  
Tamron  
Tolomatic  
Tri-Tronics  
TSII Connectors  
Universal Robots  
Wago  
Wirecrafters  
WorldWide Electric



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