

COBOT SAFETY: Rules, Regulations, and Risk Reviews Webinar

*****Please mute your phones/mics*****



IMEC: Tim Maurer

IMEC
Plan. Implement. Excel.

I-SMART: Implementing Small Manufacturer Assistance with Robotic Technologies



Are you Prepared?

WHAT IS I-SMART?

- A federally-funded program to support automation and robotics services for U.S. manufacturers.
- Provides manufacturers with access to MEP automation experts to:
 - *Identify automation opportunities*
 - *Develop the business case for specific applications*
 - *Connect manufacturers with additional automation resources*
 - *Assist with preparing for automation deployments*
 - *Consult on post-deployment optimization*
- Emphasis on helping manufacturers get “quick-wins” (fast payback)

What CAN I-SMART DO FOR ME?

- Start with a free automation implementation evaluation
 - *Remote or on-site visit by MEP/industry experts*
 - *Evaluate suitability of potential applications*
 - *Determine business case for best option(s):*
 - Cost/savings
 - Return on investment and payback period
 - *Provide written report to company on findings*
- Identify options for solution providers, assist with RFPs




WHAT CAN I-SMART DO FOR ME?

- Provide pre-deployment assistance
 - *Help plant leaders prepare workers for automation*
 - *Assist with redesign of process using Lean*
- Offer post-deployment support
 - *Replicate success of “quick-wins”*
 - *Generate additional business cases*
 - *Help optimize process*



WHAT CAN I-SMART DO FOR ME?

- Typical Process
 - Schedule date/time for site visit
 - Complete pre-visit questionnaire
 - Meet with key stakeholders
 - Tour shop floor and gather information on potential applications
 - Calculate financials
 - Provide written report on findings

Application Information Form			Date: 7/31/18	
Company: [REDACTED]	Location: [REDACTED], IN		Contact: [REDACTED]	
Necessary Reach: Est URe 3 or 5	Line Identifier/Description: Deburr		Rating: (A) (B) (C) (X)	
Shifts: Currently 8hrs per day/5 days a week. Bottleneck.	Part Size: 5 springs for high volume	Part Weight: grams	Throughput/ Cycle: 150-200 per hr	Pick multiples? possible
Automation Driver(s): <input type="checkbox"/> Repetitive Motion Injury or other hazards <input type="checkbox"/> Ergonomics Improvement <input type="checkbox"/> Hiring difficulties <input type="checkbox"/> Retention/Turnover issues & training <input checked="" type="checkbox"/> Quality/Consistency issues <input checked="" type="checkbox"/> Labor costs <input type="checkbox"/> Other	Considerations/Challenges: <input type="checkbox"/> Bin pick <input type="checkbox"/> Dexterity <input type="checkbox"/> Visual inspection <input checked="" type="checkbox"/> Precision/Tolerance <input type="checkbox"/> Low % able to automate w/Robot <input type="checkbox"/> Complex grippers	Image/Notes: 		
Notes: <ul style="list-style-type: none"> • Integration Note – <ul style="list-style-type: none"> ◦ 8 total grinding stations ◦ Likely 2-4 stations at new facility ◦ Could isolate parts to always have at same deburr station ◦ Cart / Array Tray system to be developed • Pick parts out of an array <ul style="list-style-type: none"> ◦ If in well for picking – 1/8" each - in well / grip / above • Likely pick by OD in center of part <ul style="list-style-type: none"> ◦ Gripping force could be several hundreds of newtons due to strength of spring • Part deburred on leading & back edge – OD & ID – 2 orbital rotations each • Force Torque Sensor (embedded in e-Series) to apply constant force • Track part counts to determine changing/maintenance of bit <ul style="list-style-type: none"> ◦ Currently avg 1000 parts per bit change • TBD if parts go back in same pick position vs. into tumbler tote 				

QUESTIONS? WANT MORE INFORMATION?

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AUTOMATION WEBINARS FOR DOWNLOAD

Affordable and Approachable Automation for Metal Fabricators with Cobots Webinar

Challenge the Status Quo - Pack Like a Rebel Webinar

Which Robot is Right for me?

Do's and Don'ts with Collaborative Robots

Robots 101: Putting Automation to Work Webinar

Hey Dave, Can Your Robot Do This?

Adopt Automation Faster: Scale It Risk-free Through RaaS

Visit <https://www.imec.org/corona-virus-updates/> to download

IMEC  presents

Hindsight Is...



Webinar Series

Date	Session
Dec 17	STOP SELLING NAKED: Adapt and Learn to Sell Virtually Webinar
Dec 21	Get It Done: Find Your Department of Defense Assessment/NIST 800-171 Score and Submit to SPRS Webinar
Dec 22	MANUFACTURING LEADER BUZZ SESSION: Workplace Health and Safety

Visit www.IMEC.org/Events to register

START STRONG IN 2021

Date	Session
Jan 13	ADOPT NEW TECH: How Robotic Bin Picking Can Excel Over Traditional Methods
Jan 20 <i>SAVE THE DATE!</i>	HONE YOUR SKILLS Eliminating Waste to Improve Productivity and Safety
Jan 21	FILL THE GAP: Solving the Welder Shortage with Robotic Technology Webinar
Jan 26	DRIVE BIG CHANGE: Manufacturing E-Commerce Success Webinar
Jan 28	IMPROVE YOUR CULTURE: Diversity & Inclusion in Workplace Policies Webinar
Feb 4 <i>SAVE THE DATE!</i>	EQUIP YOUR TEAMS: How a Training Matrix Can Identify and Address Skill Gaps
Feb 11	KEEP IT LEGAL: Need-to-Know COVID-19 Employment Issues for the New Year Webinar
Feb 16	EXPAND YOUR NETWORK: Capture the Exciting Opportunities Waiting on LinkedIn

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