

# HOW ROBOTICS WILL DRIVE THE AMERICAN MANUFACTURING RENAISSANCE



An Interview with Jay Douglass,  
*Chief Operating Officer,*  
**ARM Institute**



Jay Douglass is COO of The Advanced Robotics for Manufacturing (ARM) Institute. ARM's mission is to secure our national interests home and abroad by asserting U.S. leadership in advanced manufacturing, democratizing advanced manufacturing and creating and sustaining valuable, new jobs. Previously Jay worked at the Software Engineering Institute at Carnegie Mellon University. His focus was on developing business opportunities for technology development and technology transfer with commercial organizations. He most recently managed the SEI's business in Europe. Jay has worked with a wide variety of software development and quality technologies.

We are thrilled to have Jay join us at the **American Manufacturing Summit**. In addition to being Chair of our Process Strategy Stream, Jay will host a Lunch and Learn on "Fostering the Growth of National Manufacturing through Novel Robotic Technologies," and participate in a panel discussing "The Next 10 Years, 3.4 Million Jobs Available: Avoid the Skills Shortage and Attract Top Talent."

We sat down with Jay in advance of the event to ask him some questions about where he sees the manufacturing sector going and how robotics will get it there.



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Robotics  
Manufacturing  
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## OVERVIEW

- What is ARM's mission?
- Why was ARM founded?
- How does ARM plan to empower the next generation of skilled manufacturers?
- How would you summarize the current state of manufacturing?
- How do we erase the stigma of tech stealing jobs?
- Does manufacturing need to be re-branded?



### What is ARM's Mission?

The mission of Advanced Robotics for Manufacturing (ARM) is to be the nation's leading collaborative for robotics and workforce innovation. We operate as a public/private partnership that bridges the gap between innovation at the university level and implementation at the manufacturing level. By establishing ourselves as a world class knowledge center for what's new and next in robotics manufacturing and education, we can help manufacturing become more competitive, while also helping American workers capture better, higher paying manufacturing jobs.

### Why was ARM founded?

ARM is part of Manufacturing USA, or the National Network for Manufacturing Innovation program, that was established in 2014 by the federal government.

Manufacturing USA is a network of regional institutes, each with a specialized technology focus. The institutes share one goal: to secure the future of manufacturing in the U.S. through innovation, collaboration and education.

ARM is the newest institute, formed in January 2017, and our focus is on accelerating technology and education to advance the use of robots in manufacturing for global competitive advantage.

### How does ARM plan to empower the next generation of skilled manufacturers?

In speaking with manufacturers across the United States, especially those that are small or medium in size, one factor is consistent – they all face a shortage of skilled labor. This comes from all directions – from children and young adults who don't consider manufacturing as a career, to displaced workers who don't have the skills to work in today's advanced production facilities.

ARM's focus is "K through gray", meaning that we will work with academic, economic development, and industry partners to make manufacturing careers valuable and desired at a more significant level in the United States. We will do this by funding research and development of programs designed to attract, train and retain these workers.

### How would you summarize the current state of manufacturing?

ARM believes that the United States is in the early states of a significant manufacturing renaissance.

Our nation's ability to leverage new technologies, such as robotics, combined with the desire to provide a better quality of life for all Americans, is driving this renaissance.

### How do we erase the stigma of tech stealing jobs? Do we need to re-brand manufacturing?

It's a stigma that's unwarranted. Automation has been occurring for over 500 years, and during this time, it's true that jobs were lost, but new jobs were created. The purpose of automation is to perform the tasks that humans find boring, repetitive or dangerous, and this is why robots were invented.

Educating people about robotics and advanced manufacturing helps to address their fears. Labor unions, incumbent workers, and others can sometimes feel threatened by the emergence of robotics and automation technologies. I believe it's critical to address these fears and show them the opportunities these emerging technologies represent, and how they can help save, bring back, and create new manufacturing jobs that might otherwise be at risk.



## What is the importance of expanding collaboration in manufacturing and attending networking events like the 2018 American Manufacturing Summit?

ARM is a member-driven collaborative. Our members from industry, technology, academia, government, and economic development come together to work on projects to propel robotics technology and education. Events like the 2018 American Manufacturing Summit are critical to ARM's success for two reasons – first, we want to help attendees understand that organizations like ours exist to address some of the common challenges they may be facing. Second, we can have the greatest impact when we truly understand and respond to these challenges, and the Summit is the perfect place to listen, learn and share experiences.

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### About ARM Institute

The Advanced Robotics for Manufacturing (ARM) Institute is a Pittsburgh-based, nationally-known, public-private partnership founded by Carnegie Mellon University. ARM actively develops, demonstrates and facilitates early adoption of robotic solutions in an effort to grow the national manufacturing ecosystem. ARM focuses on critical growth sectors that are ripe for rapid adoption of robotics in manufacturing, including: aerospace, automotive, electronics, textiles, logistics, and composites. [www.arminstitute.org](http://www.arminstitute.org)



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