



# Delivering AI and Machine Learning Enabled Robotics to the Manufacturing and Field Service Operations



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**Seminar: Wednesday, January 17**

**2:30 PM, 125 Reber**

## **ABSTRACT**

The ARM (Advanced Robotics for Manufacturing) Institute is the nation's leading robotics and artificial intelligence (AI) Manufacturing Innovation Institute. Since its inception in 2017, the ARM Institute has catalyzed over 150 technology and workforce projects to strengthen U.S. manufacturing. One-third have employed AI and Machine Learning to enable robotic manufacturing capabilities previously not available commercially, with more in the pipeline. The capabilities apply to fabrication, finishing, assembly, and inspection of new equipment. Advanced robotics transform sustainment operations from largely manual repair and refurbishment tasks to robotics, extending equipment lifetime in field operations. This presentation will share updates on current projects, technical approaches, best practices, and lessons learned, plus steps to make the technology more broadly accessible to manufacturers large to small and facilitate technology transition via system integrators.

## **BIOGRAPHY**

Dr. Larry Sweet is a widely recognized robotics and automation expert, working in both commercial organizations and academia. He brings experience in bringing emerging technologies into production by increasing their Technology Readiness Level, concurrent with improvements in factory floor processes and workforce skills. Previously he was the Director, Worldwide Robotics Deployment at Amazon Robotics, leading technology transition and system integration for all internally developed automation into Amazon's global network. Larry also held senior manufacturing and technology roles at Symbotic, the Frito-Lay, United Technologies, ABB, Fanuc, and GE. Industry recognition includes 33 patents, the Edison and IR-100 Awards, and the Manufacturing Leadership Council Outstanding Achiever Award for Supply Chain Excellence. Larry received his Ph.D. and M.S. degrees from MIT, and a B.S from the University of California, Berkeley. He was a tenured faculty member and Guggenheim Foundation Fellow at Princeton University.