

The ARM Institute Mission

The ARM Institute accelerates the development and adoption of innovative robotics and Al technologies that are the foundation of every advanced manufacturing activity today and in the future.

We leverage a unique, robust and diverse consortium of partners across industry, academia and government to:



Make robotics, autonomy, and artificial intelligence more accessible to U.S manufacturers large and small



Train and empower the manufacturing workforce



Strengthen our economy and global competitiveness

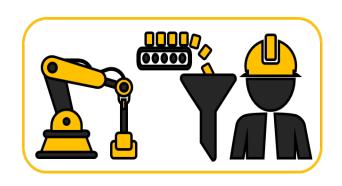


Elevate our national security and resilience



Pursuing Mission on Three Fronts







Consortium Collaboration & Impact

Convening and leveraging a nationwide consortium of 450+ organizations to participate in funded projects and drive innovation



Technology Development & Resources

Lowering barriers to adoption of robotics and AI by advancing technology through funded projects led by consortium members and by providing advanced manufacturing technology services

Education and Workforce Development (EWD) Impact

Expanding the robotics workforce with new and better career pathways with roboticscareer.org and national workforce initiatives











Carnegie Mellon University















450+ Members Representing Leadership of the Entire US Robotics Community

- Largest US Defense Contractors; other large OEMs
- **Dominant Share of suppliers of US Industrial Robots**
- **Small & Medium Manufacturers Across Many Industries**
- Early-Stage Innovators in Robotics and Al
- Top US Universities & FFRDCs with Robotics & AI R&D
- Community Colleges, VoTech Schools, Bootcamps
- **Industry Associations, Economic Dev., Non-Profits**
- Government Partners Army, Air Force, Navy, NIST, NIOSH, DoL, DoC



Technology Project Impact

- Over 150 technology projects(TRL 4-7) funded by federal government
- Project output, Discovery
 Workshop insight and Technology
 Roadmaps available to all
 members via the Online Member
 Community
- All projects evaluated and monitored for transition into use





Project Impact: MASCEI* Disposable Mask Line

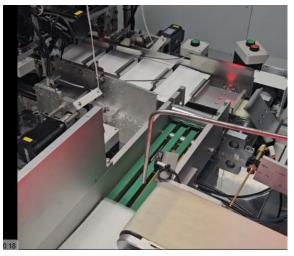
*Manufacturing Automation, Supply Chain Diversification and Addressing the Environmental Impact of PPE

Project team: NIST, AFFOA, Henderson Sewing, Sewbo, Siemens, Carnegie Mellon University and Carnegie Mellon University

Goal: create a portable facility (2 shipping containers) to automate the production of PPE - from assembly to pallet stacking







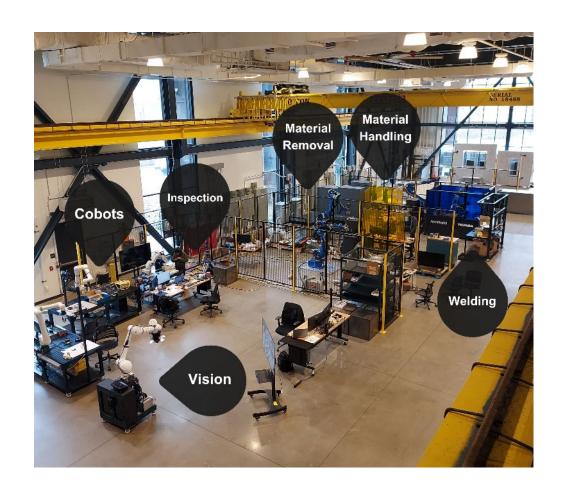




Robotics Manufacturing Hub in Pittsburgh

Robotic Demonstration, Production Line Assessment and Prototyping for Small and Medium Manufacturers

- Collaborative Robot (Cobot) Applications
- Large Material Movement
- Inspection Tasks
- Welding, Grinding, Finishing Tasks





The ARM Institute's Workforce Capabilities

RoboticsCareer.org

Talent Supply Chain

Rapid Training
Programs & Job
Matching

Automation Risk Assessment & Training

Learning Lab & Experience Center

Future of the Workforce Study

National Resource
hosted as a website
that encompasses
ARM's Robotics
Competency
Framework, Robotics
Career Pathways;
Robotics Training
Inventory; ARM
Endorsed programs;
Job Matching and
Personal Profiles

Amidst a tight market for skilled workers. technological change demanding new skills, industrial policy initiatives that require a workforce development strategy. and skill demand in emerging sectors, this solution offers comprehensive situational awareness. decision support for workers, decision support for employers, and decision support for policymakers

Deliver rapid training programs / bootcamps to prepare workers to be "job-ready" at the end of the program

The program
culminates in a day of
interviews with
manufactures to
support job matching
of the students and
employers

Utilization of a
workforce-related risk
rubric to help
manufacturers identify
risks and opportunities
for automation
decisions within the
manufacturing
operations

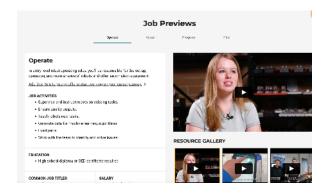
The assessment is combined with Train the Trainer curricula to enhance regional scaling

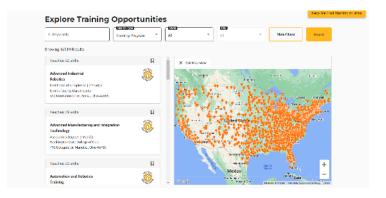
Specific training and experiential learning associated with each of the technical work cells housed within the ARM Headquarters

Robotics, automation. and artificial intelligence will be the biggest influencers on the worker of the future. This study is related to the impact of robotics and automation on the manufacturing worker over the next 10 years. Study is based on needs of Government, Industry, Academia, Unions, and Workforce **Investment Boards**



National Capability







Online Platform

- Designed for employers, education and job seekers, and education providers
- Maps advanced manufacturing robotic competencies to career pathways, training programs and job opportunities
- Freely available

Content

- Helps employers, education and job seekers find the resources in their region and nationally
- Information on 17,000+ training programs from 2,600+ organizations
- 2,000+ job opportunities in robotics in manufacturing, updated 2x week

Training Program Endorsement

- Audit to provide validation & endorsement
- Identifies and promotes best programs
- ARM Institute seal of approval
- Access to community of practice

ARM Annual Member Meeting Sept 3-5, 2025 in Pittsburgh, PA

Reach out to membership@arminstitute.org for membership information

Contact me (<u>suzy.teele@arminstitute.org</u>) for Tech Transfer opportunities

- www.arminstitute.org
- Linkedin.com ARM Institute
- membership@arminstitute.org
- **412.785.0444**



