



ROBOTICS EDUCATION &
COMPETITION FOUNDATION

SUMMIT

| ROBOTICS PROGRAMS |

MEET OUR TEAM

Robotics Education & Competition Foundation



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Regions

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01



INDUSTRY CERTIFICATIONS



Industry Certifications

The RECF Certifications Program responds to a global need for more students in the Science, Technology, Engineering, and Mathematics (STEM) fields.

Along with a team of professional engineers, college professors, and high school teachers, the RECF created two industry certifications for students in engineering or robotics-related pathways.

CERTIFICATION ACCOUNTABILITY Y

Periodic review for testing accuracy



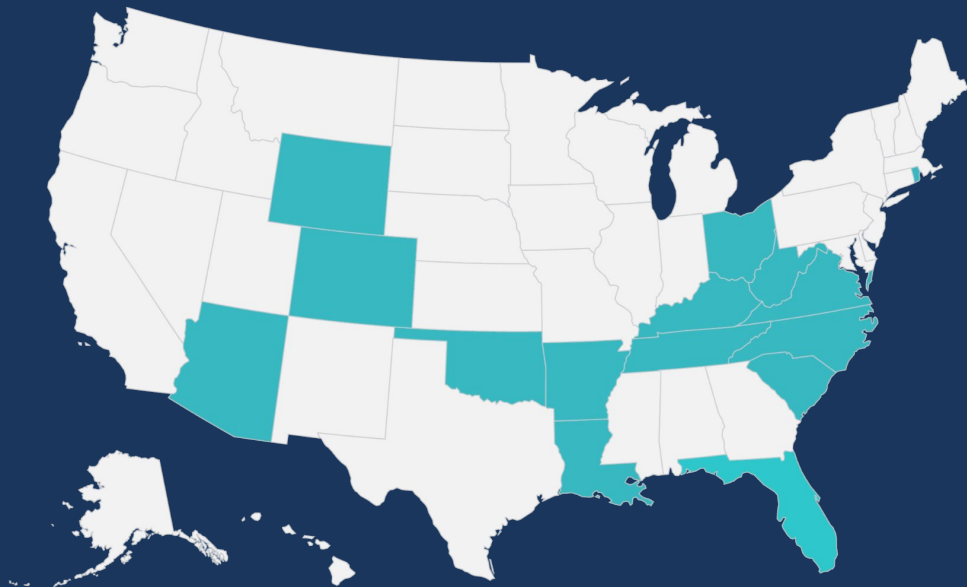
Testing content is updated in
Knowledge and Occupational Skills
document.



There is industry alignment with
field-based corporations.



CERTIFICATION ACCOUNTABILITY



Approved States

Application and Renewals

- Each State Department of Education dictates the frequency of renewal of certifications.
- Approved in Arizona, Arkansas, Colorado, Florida, Kentucky, Louisiana, North Carolina, Ohio, Oklahoma, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, and Wyoming.
- Some states are considered local control and do not have an approved list.

BENEFITS



Workforce Development

Prepare students for industry before they graduate high school

01

CTE Instruction Validation

Used as the end-of-course assessment for engineering, technology, and/or robotics pathways.

03

Post-Secondary Preparation

Students arrive certified with a foundational level of knowledge

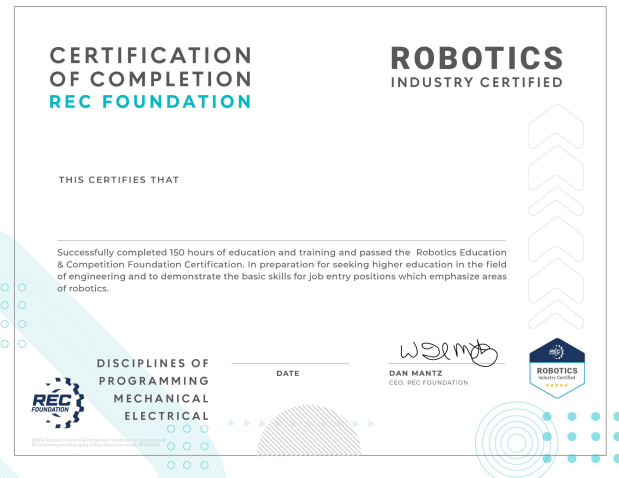
02

INDUSTRY CERTIFICATION BENEFITS

Certifications = Opportunities

Many States provide funding for student-earned Industry Certifications.

Industry internships and Post-Secondary schools give favorable weighting to students with REC Foundation Certifications.



- > Perkins Funds
- > Career Development Funds
- > Industry recruitment
- > Students may earn college credits or course credits

CERTIFICATION PATHWAY

PRE-ENGINEERING

Fundamentals of Engineering

Two user-selected Module Tests

ROBOTICS

Fundamentals of Engineering

Computer Science

Engineering

Mechanical

ROBOTICS IN MANUFACTURING FUNDAMENTALS

One Exam

100 Questions



MODULE TEST

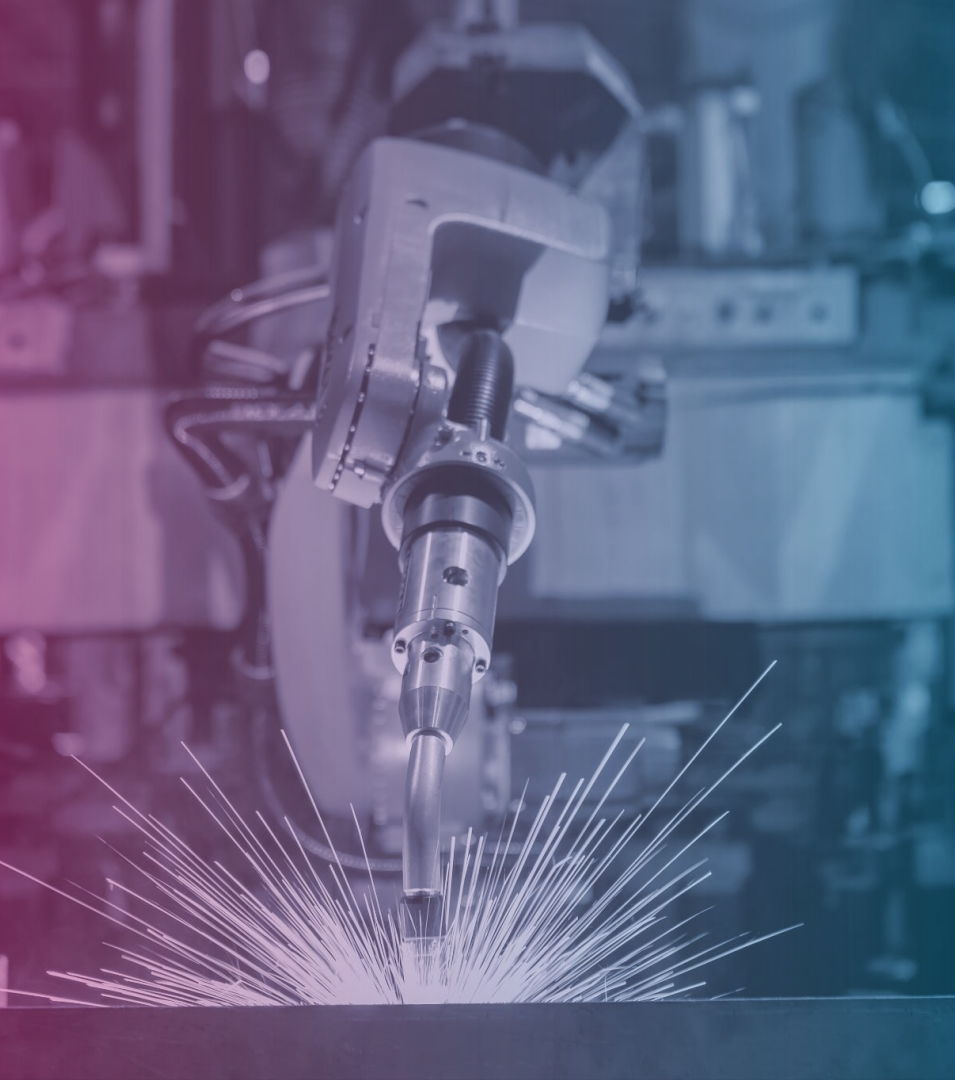
Fundamentals of Engineering

- Required for both Pre-Engineering and Robotics
- Approximately 100 questions
- 90 Minutes
- 70% Pass Score

Additional Modules

- 25-30 questions
- 30 Minutes
- 70% Pass Score

Aerospace	Electrical
Chemical	Engineering Technology
Civil	Manufacturing Technology
CS/Programming	Mechanical

A close-up photograph of an industrial robotic arm performing a welding task. The arm is metallic and complex, with various joints and cables. A bright, intense light is visible at the point of contact between the welding torch and the workpiece, with a large spray of sparks emanating from the bottom. The background is blurred, showing other industrial equipment.

Pathway to Robotics in Manufacturing Fundamentals

Exam Requirements

- Requires 70% or higher to pass.
- 90-minute exam
- Approximately 100 questions

[More Information](#)



Pre-Engineering	1	10	25	50	100	200
Pricing	\$50	\$500	\$1,250	\$2,500	\$4,500	\$9,000
Robotics	1	10	25	50	100	200
Pricing	\$60	\$600	\$1,500	\$3,000	\$5,400	\$10,800
RMF	1	10	25	50	100	200
Pricing	\$55	\$550	\$1,375	\$2,750	\$5,500	\$11,000

Pre-Engineering

certification pricing
1 unit \$50

10% Off Discount*

- ✓ 2-99 units: \$50 each
- ✓ 100 units* \$4,500.00
- ✓ 10% discount is off of the 100 units pricing

Robotics

certification pricing
1 unit \$60

10% Off Discount*

- ✓ 2-99 units: \$60 each
- ✓ 100 units* \$5,400.00
- ✓ 10% discount is off of the 100 units pricing

RMF

certification pricing
1 unit \$55

NO 10% Off Discount*

- ✓ 2-99 units: \$55 each
- ✓ 100 units \$5,500.00



SECTION /

02



SKILLS USA MOBILE ROBOTICS TECHNOLOGY



**Do you participate in
SkillsUSA or TSA?**



The competition includes activities that simulate situations encountered by robotic programmers and support professionals.



Teams are provided a task to solve using a mobile robotic system that is built ahead of time and brought to the competition.



Teams will also present their engineering notebook and robot programming to a set of judges through an interview process.

MAKING THE CONNECTIONS

01

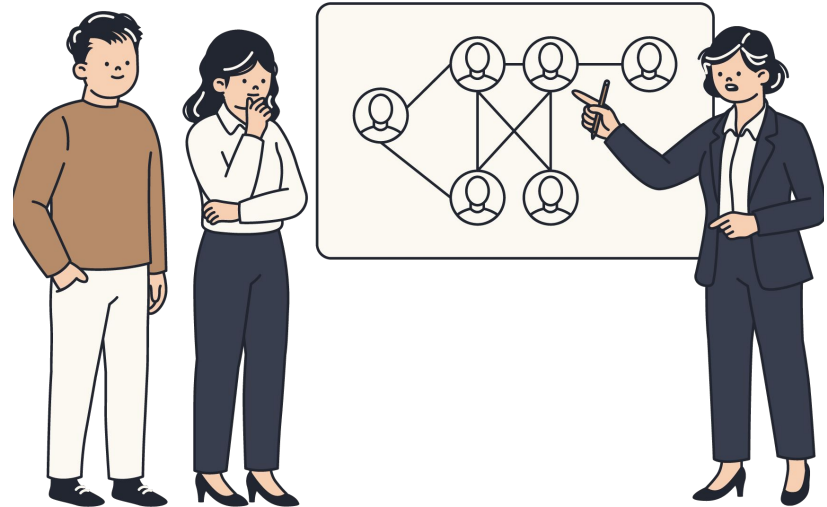
Updating the current competition format to include vendor agnostic solutions. This will provide schools more freedom to utilize hardware and software currently used in the classroom.

02

The tasks for each grade level will be based upon a real industrial use for mobile robotics.

03

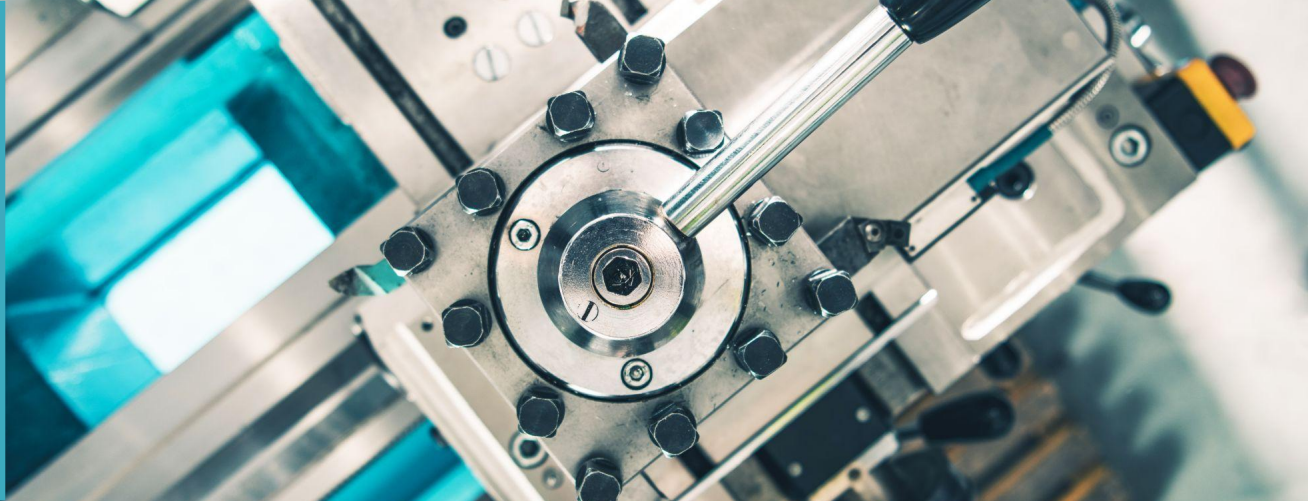
The RECF is working with industry relevant partners to support the development, design, and implementation of the competition.





SECTION /

03



MANUFACTURING COMPETITION

Making Connections to Industry

The RECF is committed to strengthening workforce development by connecting students with clear pathways into advanced manufacturing and related careers. Through hands-on STEM programs, we help close critical gaps, support lifelong learning career growth, and equip future professionals to thrive in a rapidly evolving industry. By showcasing the innovation and opportunity within modern manufacturing, the RECF is transforming perceptions and preparing the workforce of tomorrow



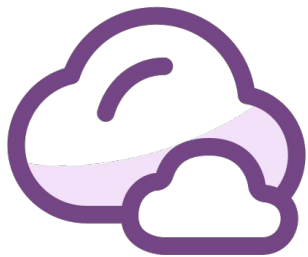


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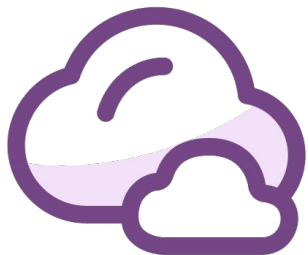


BRAINSTORM WORKFORCE DEVELOPMENT



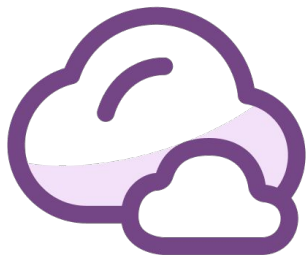
What comes to mind when you hear the term Workforce Development?





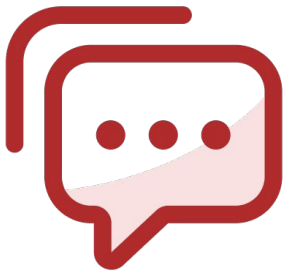
What types of skills do you believe students need for careers in today's and tomorrow's workforce?





What skill(s) would you think employers identify as the most lacking in today's generation? What can we do to better prepare them?





Audience Q&A



Presenting with animations, GIFs or speaker notes? Enable our [Chrome extension](#)

slido



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