YOUR STEP-BY-STEP PATHWAY TO CRAW-T OR CRAW-O

INTRODUCTION

Robotic arc welding is central to the automotive, heavy equipment manufacturing, shipbuilding, construction, and aerospace fabrication industries— where precision, consistency, and efficiency are non-negotiable. These systems take on high-volume or high-complexity welds that would be difficult, repetitive, or unsafe for manual welders.

The AWS Certified Robotic Arc Welding (CRAW) program validates the knowledge and skill of professionals who set up, program, operate, and troubleshoot robotic arc welding systems.

- Technician (CRAW-T) certification focuses on advanced setup, programming, and process integration.
- Operator (CRAW-O) certification centers on hands-on operation and basic programming under supervision.

Both credentials demonstrate that you can work safely and effectively with robotic arc welding systems — a growing necessity in automated manufacturing.

1 ASSESS YOUR EXPERIENCE AND ELIGIBILITY

Before applying, confirm that you meet the requirements for your chosen path:

For CRAW–Technician (CRAW-T):

- ☐ Have a two-year associate's degree in Welding/Robotics/Electrical or equivalent combination of appropriate education and experience.
- ☐ Minimum **3 years** of experience in robotic arc welding or related activities.
- ☐ Hold current CWI certification (Certified Welding Inspector)

For CRAW–Operator (CRAW-O):

- ☐ Have minimum of 2000 hours or two years of arc welding experience, 1000 hours of which shall be manual or semiautomatic arc welding.

⚠ *Note: This requirement does not imply actual arc hours but instead time working with the welding process in general.*

Have any combination of post-secondary education and/or work experience totaling 3 years, with a minimum of 1 year work experience being required.

2 REVIEW THE CRAW BODY OF KNOWLEDGE

The CRAW exam covers both general welding knowledge and robotic system-specific topics. Review the **AWS QC19 Standard** and **AWS B5.16 Specification**, which outline what you'll be tested on, including:

1. Symbols – Welding & Robotics
2. Robot Programming and Logic
3. Procedure & Welding Process Set-Up
4. Welding of Test Piece

3 ATTEND A TRAINING PROGRAM (OPTIONAL BUT RECOMMENDED)

While training isn't required, it's highly encouraged. Look for an **AWS Accredited Test Facility (ATF)** — or better yet, a **CRAW ATC** — that offers prep courses and hands-on robotic lab time.

Training can help bridge gaps in:

- Programming for different robotic systems
- Arc welding process variables and optimization
- Maintenance, calibration, and fault recovery

4 SCHEDULE YOUR QUALIFICATION TEST

When you're ready, contact an **AWS Accredited Test Facility (ATF)** that offers CRAW testing.

The test includes both **written** and **performance** components. The written exam assesses theory and safety knowledge. The performance test evaluates your ability to program, set up, and operate robotic arc welding systems to produce acceptable welds.

5 PASS THE TESTS AND RECEIVE CERTIFICATION

After successfully completing both exams with a passing mark of 75% correct on the written examination and on the performance test, your results will be verified and processed by AWS.

You'll receive an official AWS wallet card and certificate.

75%
Passing Score
for Each Part

6 KEEP YOUR CERTIFICATION CURRENT

CRAW certifications are valid for **three years**. To renew:

- [ ] Submit a renewal application before expiration

- [ ] Provide verification of continued activity in robotic arc welding

- [ ] Re-testing may be required if the certification has lapsed or if you've been inactive in the field

Every **nine years**, you will need to recertify. You have two options for this:

- Retake the current CRAW Operator or Technician performance exam.

- Prove that you have been active in related fields like inspection, welding, design, production, construction, or repair for at least two years within your last three certified years.

7 CONTINUE GROWING YOUR SKILLS

Automation technology moves fast. Stay current by:

- Attending AWS Automation Conferences or workshops

- Engaging with AWS Section meetings

- Pursuing advanced credentials such as CWI or SCWI to complement your robotics expertise

**READY TO GET STARTED?
LEARN MORE ABOUT
CRAW-T CREDENTIALS**

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