

Welding Job Interview Questions And Answers



Interview Questions Answers

<https://interviewquestionsanswers.org/>

About Interview Questions Answers

Interview Questions Answers . ORG is an interview preparation guide of thousands of Job Interview Questions And Answers, Job Interviews are always stressful even for job seekers who have gone on countless interviews. The best way to reduce the stress is to be prepared for your job interview. Take the time to review the standard interview questions you will most likely be asked. These interview questions and answers on Welding will help you strengthen your technical skills, prepare for the interviews and quickly revise the concepts.

If you find any **question or answer** is incorrect or incomplete then you can **submit your question or answer** directly with out any registration or login at our website. You just need to visit [Welding Interview Questions And Answers](#) to add your answer click on the *Submit Your Answer* links on the website; with each question to post your answer, if you want to ask any question then you will have a link *Submit Your Question*; that's will add your question in Welding category. To ensure quality, each submission is checked by our team, before it becomes live. This [Welding Interview preparation PDF](#) was generated at **Wednesday 29th November, 2023**

You can follow us on FaceBook for latest Jobs, Updates and other interviews material.
www.facebook.com/InterviewQuestionsAnswers.Org

Follow us on Twitter for latest Jobs and interview preparation guides.
<https://twitter.com/InterviewQA>

If you need any further assistance or have queries regarding this document or its material or any of other inquiry, please do not hesitate to contact us.

Best Of Luck.

Interview Questions Answers.ORG Team
<https://InterviewQuestionsAnswers.ORG/Support@InterviewQuestionsAnswers.ORG>



Welding Interview Questions And Answers Guide.

Question - 1:

Why should I use a robot for my welding needs?

Ans:

Switching from manual welding to a welding robot offers multiple advantages:

- * Welding Robots are Cheaper - Robots are a one-time purchase. After factoring in all the money spent on the equipment cost and the hourly rate of a manual welder companies typically find that robots are a cheaper alternative for welding needs. To figure out the amount of money you can save annually by using a robotic system use our ROI calculator.
- * Robots Offer Greater Accuracy - Robots, unlike humans, can be programmed to execute the same weld repeatedly without even slight alteration. They are capable of great precision. Robots are less likely to make mistakes. This in turn leads to a more reliable, high-quality product.
- * Welding Robots Up Production - Robots are able to work 24 hours a day 7 days a week with no breaks, which means an increase in production. With welding robots, cycle times are often much shorter, leading to more throughput.
- * Robots Conserve Resources - Robots won't waste your time or materials. Their programmed precision makes them less likely to waste products because of faulty welding. They work quickly without taking breaks, saving valuable hours and cost.
- * Welding Robots Create a Safer Workplace - Welding can be hazardous to one's health. Robots are oblivious and protected against welding dangers like smoke, fire, fumes - taking humans out of potential danger.
- * Robots Bring Flexibility - The large work envelopes of welding robots allow for better part accessibility.

[View All Answers](#)

Question - 2:

What is required when shipping a robot?

Ans:

Unless specified otherwise, it is the customer's responsibility to arrange and pay for a confined air-ride box truck with an entrance no less than 110" tall and a width that can accommodate a forklift for loading and unloading the robot.

Extra large systems that need flatbed trucking must be weatherproofed prior to shipping with a heavy-duty plastic tarp. Extra charges may apply with this option.

[View All Answers](#)

Question - 3:

What standard warranty is offered with the purchase of new or used systems?

Ans:

The standard warranty on a refurbished RobotWorx robotic system is one year. This warranty covers all parts and labor.

[View All Answers](#)

Question - 4:

What are the steps in the robot reconditioning process?

Ans:

RobotWorx' thorough 168-point inspection sets us apart from other integrators. Our engineers inspect every vital component for reliability. Inspections vary with each robot depending on its condition and number of hours.

Roll your mouse over the yellow dots on the robot and controller to find out what our Certified Quality Inspection includes.

[View All Answers](#)

Question - 5:

What does RobotWorx do to guarantee customer satisfaction?

Ans:

At RobotWorx we provide high quality customer service. Our number one priority is making sure each customer is happy with their purchase. Here are some of the ways we keep our customers satisfied:

- * Top-Notch Workmanship:
RobotWorx provides high quality workmanship on all systems and parts. Every robot system is put through a rigorous testing and rebuilding process. Our team of certified technicians and welding engineers is committed to excellence.
- * Workcell Customization:



RobotWorx specialty is building customized workcells. We will construct robotic systems to meet every customer's specific needs - from safety environment and footprint to robot model and tooling configuration.

* All-Inclusive Warranty:

RobotWorx' robot warranty covers 100% parts and labor on all new and reconditioned robotic systems. We offer phone support to each customer for the lifetime of their robotic system.

* Free Training:

One of RobotWorx' customer perks is free training. We make sure every customer is familiar with their robot system and is able to operate it correctly prior to selling.

[View All Answers](#)

Question - 6:

What determines whether or not RobotWorx will buy my used welding robot?

Ans:

At RobotWorx we're always interested in expanding our inventory of used welding robots. We offer top dollar for robots that meet our search criteria. In fact, if we're interested in your robot we promise to beat any competitor's price by 10%.

When considering a used welding robot for purchase, RobotWorx focuses on the condition of the control cabinet and welding robot manipulator. Pictures of the robot help us determine the condition of the welding robot. We ask questions so we can learn as much about the used robot as possible.

RobotWorx pays special attention to:

- * The availability and condition of the teach pendant
- * Status of the servo amps
- * Presence of the circuit boards
- * Previous applications performed by the robot

RobotWorx is primarily interested in industrial robots made by the following manufacturers: Motoman, Fanuc, Nachi, ABB, Panasonic, Kuka, OTC.

[View All Answers](#)

Question - 7:

Does RobotWorx repair welding robots?

Ans:

Repairing welding robots is one of RobotWorx' specialties. Many adjustments and repairs are made throughout our robot refurbishment process.

We are committed to meeting the repair needs of each of our customers. That's why RobotWorx' one-year warranty covers all parts and service on every welding robot sold.

While we can't offer repair services if you purchased your robot elsewhere, we do have an extensive inventory of new and used parts. We offer affordable prices on welding parts for a variety of robot models.

[View All Answers](#)

Question - 8:

Does RobotWorx provide robot training to customers?

Ans:

It's important to be comfortable with your new robot system. That's why we offer free training to every customer at our facility in Marion, Ohio.

At RobotWorx, you'll get a chance to program your robot system under the supervision of a certified robot technician. You'll also be briefed on your system's safety features.

[View All Answers](#)

Question - 9:

Do you only integrate robot welding applications?

Ans:

Welding-Robots.com represents the welding division of RobotWorx, an industrial robotics integrator capable of automating a wide variety of applications. While the welding division website provides customers with welding specific information, two other websites showcase our other services.

[View All Answers](#)

Question - 10:

What topics are addressed during the training class?

Ans:

The items covered in the welding training class include:

- * Modify an existing welding program and correct errors
- * Use selected edit functions
- * Write a job using sequence commands
- * Modify a job
- * Operate a job using control panel and teach pendant
- * Recall system set / advanced functions using teach pendant
- * Recall system data using teach pendant
- * Use upload / download software
- * Teach weld program
- * Modify weld program using override function
- * How to change batteries
- * Power up / power down
- * Recall teach pendant, control panel keys & switch functions
- * Select operate and teach using the control panel & teach pendant
- * Perform tool alignment
- * Move robot axis using various coordinate systems



- * Program Teaching
 - Linear Program
 - Circular Program
 - Linear Weave Program
 - Circular Weave Program
- * Program Modification
 - Linear Program
 - Circular Program
 - Linear Weave Program
 - Circular Weave Program
- * Program Operation
 - Linear Program
 - Circular Program
 - Linear Weave Program
 - Circular Weave Program

[View All Answers](#)

Question - 11:

What are your service rates?

Ans:

Labor Charges for Training, Service, and Programming
4 hours minimum Standard Work Hours \$ 115 per hour
Overtime after 8 hours completed and Saturday..... \$ 160 per hour

Portal to Portal Travel Time..... \$ 65 per hour

Travel Expenses:

Transportation: \$ 65 per hour
Airfare and/or car rental..... At cost +10%
Mileage..... \$ 0.60 per mile
Living Expenses:
Lodging..... At cost +10%
Per Diem..... \$ 50 per day

Additional Information:

Prepayment Required.

Cost of the total service call will be estimated for prepayment and will be adjusted upon completion of the service.

All outstanding account balances must be paid in full before initiating a service call.

All service calls and parts must be prepaid based on estimate.

Rates subject to change without notice.

[View All Answers](#)

Question - 12:

What is the required maintenance for welding robots?

Ans:

Welding robots have their own set of maintenance needs. Robotic welding systems have to keep everything regulated correctly - torch angle, wire feed, gas flow. As with most equipment, when it comes to welding robots, a little maintenance goes a long way. RobotWorx recommends paying attention to these items for the best results:

- * Proper connection of welding leads: Positive from power source to wire feeder and negative from power source to work piece, table, and fixture.
- * Wire feeder: The wire drive roll needs to have the proper tension and the rollers must be the proper size.
- * Welding Gun: Check the condition of torch contact tips, nozzles, and make sure there is the right amount of gas flowing through the gun.
- * Robot Tool Center Point (TCP): Make sure you've programmed this point correctly. It controls the torch's position and makes it possible for the robot to perform the proper movements.

[View All Answers](#)

Question - 13:

Does purchasing reconditioned robots or robotic systems breach any RIA standards?

Ans:

No, this should not be a problem. Rebuilt robots retain the same configuration and capabilities of the original robot and only have to comply with the standards in effect on the original manufacture date. If you actually 'remanufacture', i.e. upgrade the robot, then you will have to comply with the 1999 edition of the standard.

[View All Answers](#)

Question - 14:

Are robot welds accurate?

Ans:

Robot welds are extremely accurate and consistent. This welding accuracy leads to better product quality and less wasted material while typically increasing throughput and cycle speed.

Robot welds are more accurate because...

- * They are Precise - Welding robots perform with exceptional precision of movement.
- * They Offer Top Repeatability - Welding robots are programmed to perform the same job repeatedly, without any alteration. This eliminates welding mistakes while increasing throughput.
- * Automation Equals Accuracy - Robotic welding is a programmed, regulated process. Unlike manual welding where the weld quality is determined by the



worker's skill, robotic welding is always the same. With proper programming, robots will help you avoid waste and boost product consistency.

[View All Answers](#)

Question - 15:

Which RIA standards are new and used robotic systems required to follow?

Ans:

The Robotic Industries Association (RIA) standard is the ANSI/RIA R15.06-1999, Safety Requirements for Industrial Robots and Robot Systems.

The ANSI/RIA is not a law but a voluntary American National Standard. Adhering to it is not so much a legal issue as it is a compliance issue. As more and more users require compliance with the standard in their contract specifications, you may be obligated to comply with the standard. More contracts will be let this way, since the user is required to comply with OSHA directives that include voluntary standards by reference.

[View All Answers](#)

Question - 16:

Are welding robots safe to use?

Ans:

Welding robots are equipped with internal and external safety features. Light curtains, safety stops, walls, weight-sensitive mats, and shielding protect the robot and the robot operator. Other safety features are programmed into the robot. Vision peripherals can also work as safety devices. Furthermore, welding robots provide a safe alternative to manual welding. Unlike their human counterparts, welding robots don't run the risk of electric shock, severe burns, eye damage, etc.

Instead, they remove workers from the danger zone to the safety of operator's positions. They are oblivious to the bright light, sparks, chemical fumes, and extreme heat caused by welding applications.

[View All Answers](#)

Question - 17:

ANSI? CE? RIA? Can I design against one standard that will include all requirements?

Ans:

Simply stated, no.

CE refers to European conformity and has nothing to do with suitability for use in the United States. ANSI is the accrediting agency that approves the standards sponsored and written by the RIA, a Standards Developing Organization.

The R15.06 is performance requirements for personnel safety.

A design standard is ANSI/UL 1740 that actually states hardware requirements and specifications. The UL 1740 and R15.06 are harmonized so that if you build the hardware in compliance with UL 1740, you should be able to meet the safeguarding requirements in R15.06.

[View All Answers](#)

Question - 18:

What does RobotWorx consider a refurbished robot?

Ans:

Robot welding systems are considered refurbished once they have passed through RobotWorx' comprehensive 168-point reconditioning process.

Each used robot welding system is thoroughly cleaned, reworked, tested, and given a fresh coat of paint. Our robot service department pays close attention to every aspect of robot welding systems by performing the following:

- * Harmonic drive and belt assembly inspection/cleaning/lubrication and replacement as needed.
- * Battery replacement
- * Wire harness inspection
- * Bearing check and lubrication
- * Repeatability and performance testing

[View All Answers](#)

Question - 19:

What is the difference between MIG and TIG Welding?

Ans:

While Metal Inert Gas (MIG) and Tungsten Inert Gas (TIG) are both shielded arc welding applications, they are very different from one another. MIG welds are created with a consumable electrode, while TIG welds are created with a non-consumable electrode. TIG welding typically includes filler metal as well.

TIG and MIG arc welding can both be automated. However, TIG is a more complicated process so the equipment is more expensive and difficult to set-up. Find out more about the pros and cons of MIG vs. TIG.

[View All Answers](#)

Question - 20:

What is turnkey integration?

Ans:

Turnkey integration gets its name from being all-inclusive and production-ready.

Robot workcells are turnkey integration systems because they require little installation and have every necessary element: robot, safety, tooling, etc. Turn a key or flip a switch, and presto - you're automated!

Interested in a robotic turnkey integration system for your facility? RobotWorx is a turnkey integration expert. We build custom turnkey workcells to answer specific application needs. Avoid delays and costly mistakes when you buy a turnkey integration system.

[View All Answers](#)



Question - 21:

What is a welding crater?

Ans:

Unless welding is performed with a very low current, a concave dip, called a crater occurs at the end of a weldment.

This crater results from the force of the arc and the contraction of melted metal when it cools and solidifies. The size of each crater relates directly to the welding current. Craters are not desirable because they cause a welding defect due to slag wrapping.

Crater welding is one method used to fill craters. It requires regular welding current. There are control sequences that allow you to switch to a crater filler current.

[View All Answers](#)

Question - 22:

What is a robot work envelope?

Ans:

A robot can only work in the area in which it can move. This area is called the work envelope. The work envelope is determined by how far the robot's arm can reach and how flexible the robot is. The more reach and flexibility a robot has, the larger the work envelope will be.

Axes - The number of axes a robot has define its flexibility level. The typical industrial robot has six axes of movement.

Length of arm segments - The robot's axes link arm segments which each vary in length. The length of the arms combined with the capabilities of each axis determine a robot's reach.

Placement - Robots have different mounting options. Their work envelopes vary in scope depending on whether they are shelf, ceiling, wall, or floor mounted. Some robots can be mounted to tracks or gantry systems, which further expands their work envelopes.

Construction - A robot's strength effects its work space. Robots have different payload capacities which in turn determine the type of EOAT that can be attached.

[View All Answers](#)

Question - 23:

What is GMAW?

Ans:

Gas Metal Arc Welding is a welding method more commonly referred to as GMAW or MIG welding.

Typically used in the automotive and sheet metal industries, GMAW can be an automatic or semi-automatic process. GMAW provides high quality welds at a low cost to the manufacturer.

This arc welding application feeds a GMAW metal consumable electrode and shielding gas through the welding gun. An electrical current travels down the electrode and strikes the arc between the metal being welded and the wire electrode.

The advantages of GMAW include:

Speed - GMAW is a fast welding application

User-friendly - This welding approach is easy to set up and implement.

Cheap - GMAW equipment tends to be more affordable and more available than other welding equipment.

GMAW is used on these materials:

Steel, Aluminum, Copper, Nickel, Magnesium and other non-ferrous materials.

[View All Answers](#)

Question - 24:

What is the meaning of ROI, and when does it apply to customers?

Ans:

ROI stands for "Return on Investment". This is the amount your company will save by incorporating robots. A robotic system typically produces the same output as 4 welders. The annual savings (ROI) can be calculated as follows:

$$ROI = [(x + y) * 4 - z] * t$$

x = Hourly Rate of Welder

y = Equipment Cost Per Hour

z = Robotic System Cost Per Hour

t = 2080 Hours Per Year

[View All Answers](#)

Question - 25:

What is prototype tooling?

Ans:

Prototype tooling as basic part fixturing, as well as the use of manual clamping and rigid steel framing that is fabricated from a customer's parts.

Prototype tooling provides a concept of what the production tooling is meant to be. It is not meant for production tooling. When the prototype tooling is tried out, final tooling could be quoted to you and provided.

Prototype tooling does not include: part presence sensors, tooling design drawings or pneumatic clamping and isn't subjected to a customer's specifications or original design. Prototype tooling demonstrates the correct way to weld the part and also shows how tooling can be instituted at low cost to the customer.

[View All Answers](#)

Other Professions Most Popular & Related Interview Guides

- 1 : [Electrician Interview Questions and Answers.](#)
- 2 : [Agriculture Interview Questions and Answers.](#)
- 3 : [Police Officer Interview Questions and Answers.](#)
- 4 : [Cabin Crew Interview Questions and Answers.](#)
- 5 : [Firefighter Interview Questions and Answers.](#)
- 6 : [Fire Officer Interview Questions and Answers.](#)
- 7 : [Call Center Interview Questions and Answers.](#)
- 8 : [Driver Interview Questions and Answers.](#)
- 9 : [Plumbing Interview Questions and Answers.](#)
- 10 : [Anatomy Interview Questions and Answers.](#)

Follow us on FaceBook

www.facebook.com/InterviewQuestionsAnswers.Org

Follow us on Twitter

<https://twitter.com/InterviewQA>

For any inquiry please do not hesitate to contact us.

Interview Questions Answers.ORG Team

[https://InterviewQuestionsAnswers.ORG/
support@InterviewQuestionsAnswers.ORG](https://InterviewQuestionsAnswers.ORG/support@InterviewQuestionsAnswers.ORG)