



## ROBOTICS SPOT SIMULATION ENGINEER 3DEXPERIENCE MANUFACTURING & PRODUCTION ROLE



SIMULATE SPOT WELDING AND DRILLING & RIVETING ROBOTS

## Robotics Spot Simulation Engineer simulates and manages robot spot weld and drill & rivet applications

Robotics Spot Simulation Engineer delivers advanced capabilities for robot path planning, weld gun selection and analysis, improving reaction time to new or changing product designs. Entire robot workcells are able to be simulated and validated in the **3D**EXPERIENCE® platform. Resources can be positioned, motion trajectories debugged, and input and output connections established between robot controllers and other devices. Thorough workcell logic can be created by sequencing robot and device programs, and robot logic can be validated. The development of interference-free robot operations that execute robot tasks help ensure high quality robot and machine tool operation.

#### Fast, simple robotic workcell layout

Simulation engineers can choose from an extensive library of robot and controller models from all major industrial robot manufacturers. Auto placement and workspace envelope tools help them position the robot in a reachable position and benefit from early feasibility studies.

#### Early discovery and resolution of design for manufacturing (DFM) issues

Robot task feasibility studies can be performed early in the planning and detailing stages, reducing the need for costly rework.

#### **Concurrent robot simulation**

Simulation engineers can concurrently create and validate individual robot tasks in a single workcell, assembly line or across an entire factory. As each user completes their work, the robot task details become available to other stakeholders and are incorporated into the parent process, so that multiple users concurrently incorporate the collective work into their own work.





#### Improved collaboration between simulation engineers and designers

Based on the **3D**EXPERIENCE platform, collaboration is supported throughout the extended enterprise. Powerful lifecycle and change management capabilities streamline the business process and improve the overall quality of work.

# Create, simulate and validate robot tasks in the manufacturing context

Simulation engineers can create and validate robot tasks in a variety of manufacturing contexts. This helps in understanding how motion variables will impact task definition.

### **Role Highlights**

- Groundbreaking **3D**EXPERIENCE platform
- Rapid station layout
- Intuitive robot teach pendant-like interface
- Support advanced logic with inputs and outputs in the simulation
- Automatic robot path updates to accommodate design changes
- Perform weld analysis easily and intuitively
- Balance the spot welds or rivets among multiple robots

## Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3DEXPERIENCE** Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 190,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.





Americas Dassault Systèmes 175 Wyman Street Waltham, Massachusetts 02451-1223 USA Europe/Middle East/Africa Dassault Systèmes 10, rue Marcel Dassault CS 40501 78946 Vélizy-Villacoublay Cedex France

Asia-Pacific Dassault Systèmes K.K. ThinkPark Tower 2-1-1 Osaki, Shinagawa-ku, Tokyo 141-6020 Japan