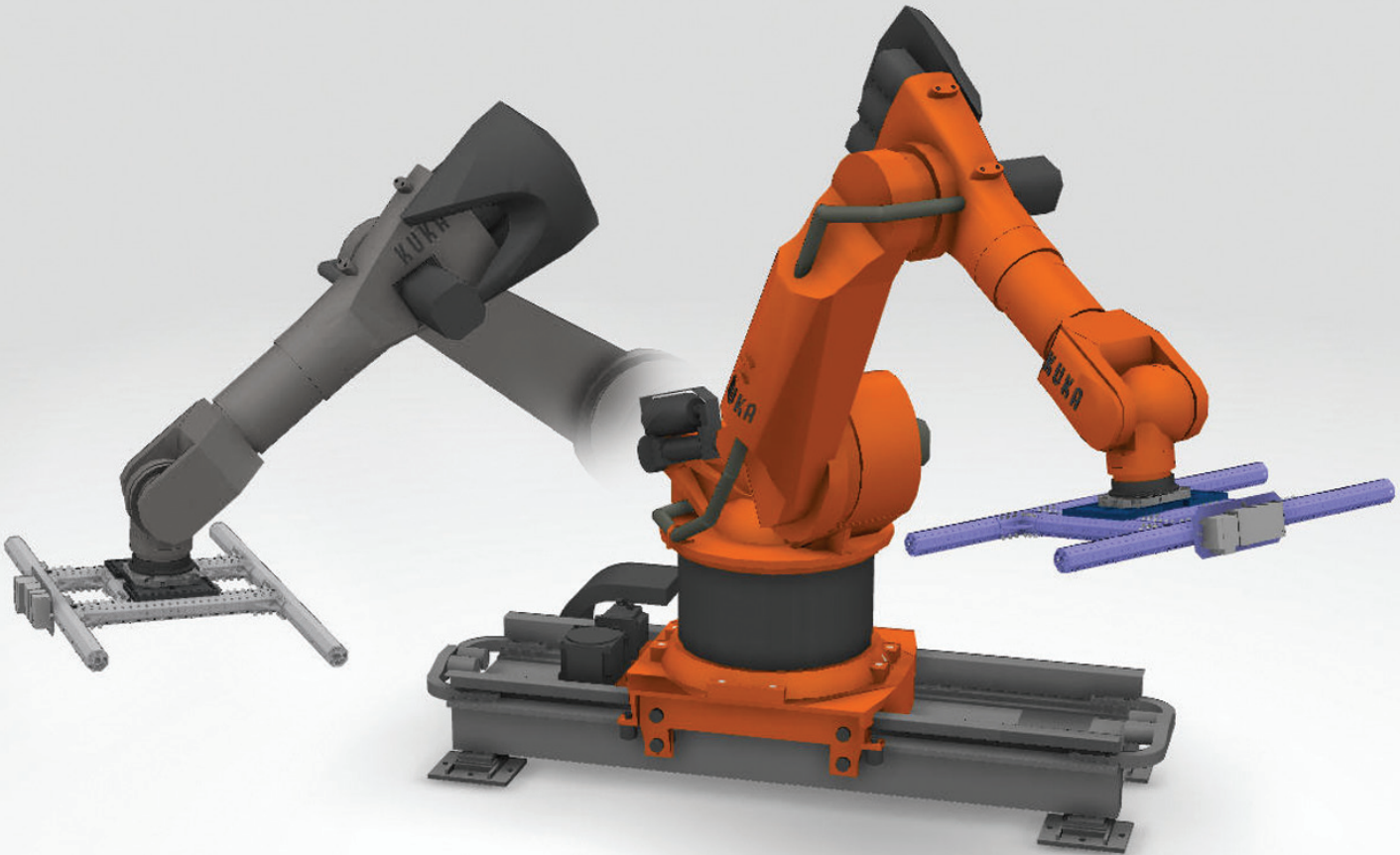


# ROBOT TASK DEFINITION

Datasheet



## **CREATE, PROGRAM, SIMULATE AND VALIDATE ROBOT WORKCELLS:**

**DELMIA ROBOT TASK DEFINITION  
PROVIDES AN INTEGRATED SOLUTION  
FOR OFFLINE PROGRAMMING,  
SIMULATION AND VALIDATION OF  
ROBOT PROGRAMS.**

DELMIA Robot Task Definition (RTD) provides a V6 3D environment for creating, programming, simulating and validating an entire robot workcell for all manufacturing industries. Robot programmers can position various resources, program individual robots, debug the motion trajectories and establish I/O connections between robot controllers and other devices.

DELMIA Robot Task Definition provides an interactive sequencing tool that enables users to create complete workcell logic by sequencing different robot or device programs. In this interactive 3D environment, the user is able to perform feasibility studies while creating interference-free, optimized programs for the operations being performed in the workcell. A rich library of hundreds of robots and controllers for all major industrial robot manufacturers is provided to support programmers in their layout and programming tasks.

## PROGRAM ROBOTS OR DEVICES

With a virtual teach pendant, the user defines specific instructions for the robot to move to or through various points, perform material handling activities and create input / output signals between robots and other programmable devices. It also provides the capability to sequence and simulate the tasks of each individually programmed robot and device, in order to validate the synchronized behavior of the workcell.

## OPTIMIZE TRAJECTORY

The robot programmer can automatically optimize the robot's motion by computing standard motion parameters such as turn numbers, configuration, gantry and rail values along a robot trajectory. It also provides tools which optimize cycle time and reach to create a collision-free path.

## SIMULATE, VALIDATE AND COLLABORATE IN THE V6 3D IMMERSIVE ENVIRONMENT

Single or multiple robot tasks can be simulated in the V6 3D immersive environment to locate and correct any interferences or collisions in the workcell. Users are able to evaluate and optimize robot activities to achieve desired cycle times. Multiple users are able to concurrently create and validate individual robot tasks in a single workcell or across an entire factory.

## WORKCELL LAYOUT

Users are able to define and modify resource structure, assign inverse kinematics, and define motion controller and motion groups. There are also tools for auto-positioning of robots like Autoplace, Reach and Workspace Envelope to optimally position robots in the workcell.

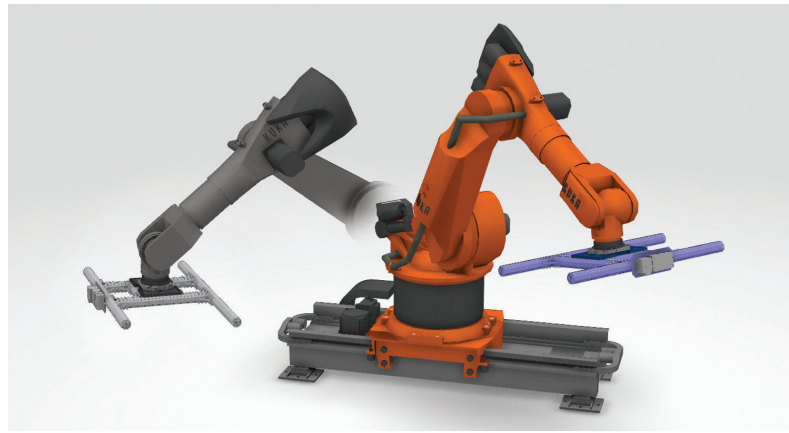
## PRODUCT HIGHLIGHTS

- Simple and fast robotic workcell layout creation
- Smart Positioning Tools
- Collaborative and context-based immersive user interface
- Virtual teach pendant for interactive robot programming
- 3D platform to create, validate and optimize robot tasks in different manufacturing contexts
- Early discovery and resolution of Design for Manufacturing issues
- Improved collaboration between robot programmers and designers
- Create and validate synchronization primitives (I/Os)

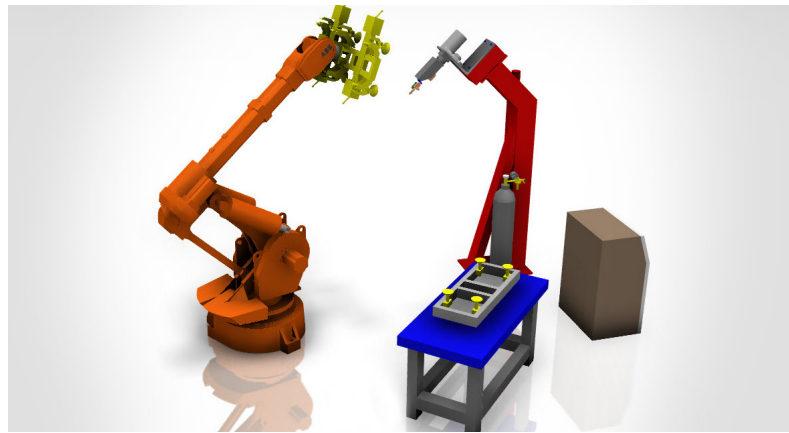
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DELMIA Robot Task Definition enables the creation, programming, simulation and validation of the entire robot workcell.



Optimize the robot's motion, cycle time and reach to create a collision-free path.