

OFFLINE PROGRAMMING WELDING ROBOTS AND SIMULATION IN ROBOTSTUDIO 5.10

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Abstract: Industrial robots are increasingly used nowadays due to their flexibility. All the applications made by humans can now be replaced with a robot intervention successfully. Now the arc welding applications can be simulated offline with just a CAD model of the parts you need to weld. In this paper we will prepare a program ready to use for an arc welding application. RobotStudio build a station by including the equipment necessary to create and simulate robot programs. Importing station components: a robot model, a tool, a positioner, a track, other equipment and add work piece. Placing the objects in the station. Programming a robot: create targets and paths, check the target orientations, check reachability, synchronize the program to the virtual controller, perform text-based editing, collision detection and test the program.

Key words: RobotStudio, welding, robot, CAD, simulation, offline.