CAD IMPORT AND OFFLINE SIMULATION WELDING ROBOTS IN ROBOTSTUDIO

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Abstract: Almost all the applications that require human intervention can now be performed with advantages by robots. Now all the parts to be welded can be designed using software such as SolidWorks, SolidEdge, AUTOCad et. al. and imported in RobotStudio for an offline simulation of the arc welding application. In this paper, we will import parts from SolidWorks and we will simulate an arc welding application using RobotStudio. 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.