

Design and Modelling of a Pick and Place Robotic Manipulator

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Abstract - This paper discusses the design of a pick and place cylindrical robotic manipulator optimized for processes where parts will be moved from one assembly cell to another located above. A literature review was done to investigate the need for this type of design and the competing designs found in industry today. The kinematics, dynamics and control of the proposal robotic manipulator are studied, respectively. Future study will focus on building a prototype applying learning control to this robot to handle uncertainties that may occur in the industries.

Keywords: modelling, pick and place, robotic manipulator, control