DESIGN AND IMPLEMENTATION OF FLEXIBLE ASSEMBLY SYSTEM FOR A ROBOT ARM

Project Report Submitted by

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Summary

1) Familiarization with the robot Arm Alpha II+ its main components, the teach control and the work envelope.

2) Familiarization of the existing program and its organization.

3) Familiarization with the programming methods for movement programs and the cartesian coordinates of the work envelope.

4) Design and Construction of the assembly table.

5) Design and Construction of the assembly components.

6) Add the subroutine for running any program.

7) Add the facility of automatic homing when main program run.

8) Design and Write the movement programs for the store and the assembly operations according to the robot work envelope.

9) Design and Write the Logic of the system in order to work when components came in random order.

10) Design and write the subroutine to get input from the sensor and according to that dimension, give to logic an input of what component pass.

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