30/09

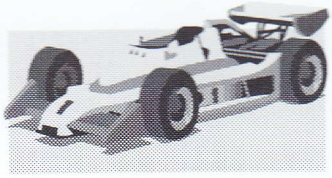
THE KENYA POLYTECHNIC UNIVERSITY COLLEGE

SCHOOL OF ENGINEERING SCIENCE AND TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONIC

TRADE PROJECT

PROJECT TITLE: STEPPER MOTOR DRIVE SYSTEM FOR A ROBOT



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S: AUGUST, 2009

DE: Et 303107

ROJECT FOR PARTIAL FULFILLMENT FOR THE F DIPLOMA IN TECHNOLOGY (POWER OPTION)

PREFACE

As it pertains drive systems, dc motors have been widely used. Dc motors can provide clockwise and anticlockwise motions. There exists a problem with dc motors which makes them ineffective in situations where accuracy is needed especially during stopping and control. This is due to high inertia possessed by the dc motors when running.

To avoid this problem with dc motors, stepper motors which provide excellent braking and control characteristics are currently being employed in control systems. The feature of stepper motor being able to rotate at a step makes the stepper motor to be stopped at any point without inertia. Also, the speed regulation is possible through a program.

It is due to that, I have decided to design and construct a driver circuit that is supposed to run the motor. This driver together with the motor will work effectively in control systems.