DEVELOPMENT OF A STEPPER MOTOR MICROCONTROLLER

BY

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SUMMARY

ANDROS CHOULIS

DEVELOPMENT OF A STEPPER MOTOR MICROCONTROLLER

The main objective of this project is to study the theory of a microcontroller system and construct a system which would control two stepper motors . This system will be applied in an industry machine.

The work was performed and completed successfully. All the software and hardware has been done and also some additional work completes the purpose of the project.

INTRODUCTION

In nowadays , electronics are introduced in a large part of our life. Electronics are also used widely in industry ,for controlling the operation of mechanical machines .For this purpose ,computers and other microcontroller systems are used. This technology has a lot of advantages .The main advantage is that we have the flexibility to control the action of the system just by changing some special settings or the whole software. So ,by this we avoid in large part the change of the whole mechanical section ,if this is attainable .

In our project we deal with such applications ,where a microcontroller system controls the operation of two stepper motors .The construction of this board has no actual final target to control two stepper motors but can be control with the help of some other devices ,a lot of operations that done manually before. This it can be applied in many fields of industry .To be more exactly ,this controller it will applied to a cutting machine.

Our project is divided in three main parts :

i)The hardware construction of the system

ii)The software design

iii)Testing and troubleshooting

Any information regarding the parts of this project mentioned above are found in the following chapters.