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Computer Controlled Exercise Bicycle

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SENIOR DESIGN
TECHNICAL REPORT

for

COMPUTER CONTROLLED EXERCISE BICYCLE
title

in partial fulfillment of the requirements

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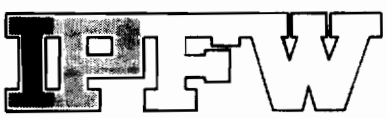

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COMPUTER CONTROLLED EXERCISE BICYCLE

By Christine Slaughter

ABSTRACT

The primary objective of the Computer Controlled Exercise Bicycle or CCEB is to control pedal speed. The ability to use digital control, such as an A/D converter, and to control the speed of an exercise bicycle is required. Using an A/D converter will allow digital data to be sent to the Intel-SDK 86 to calculate pedal speed and elapsed time. This interface will allow for eight bits of digital data from the A/D converter to be read in through the I/O ports of the Intel-SDK 8086.

The CCEB interface inplementation start the software development phase of the project. The objective is to write a BASIC program so that the user could enter a certain value from the host system, IBM personal computer to vary the pedal speed of the bicycle.

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