WEIGHT WATCHER

Prepared by: Eng Fong Yee

ABSTRACT

The scope for this project is to build a machine that checks weights as the title of project is names Weight Watcher. The idea is to build a conveyor system built in with a weighing machine that announces the weight of a package, prints the package with its announced weight. The motivation is that this machine would have a widespread purpose with additional enhancements compared to the available machines that commonly used in the industry.

The resulting product after much compromise and modification, the conveyor system is designed to be operated by Programmable Logic Controller (PLC). This is done by writing a program to command the Infrared (IR) sensor module that acts as switch. The package which is to be moved will act as a trigger via IR switch which then operated the DC gear motor and the conveyor belt system.

Once the system is operated, the weight of the package is measured by applying load on the Force Sensitivity Resistor (FSR). The FSR then reads a resistance value based on the weight on the package. This resistance value is then converted into KGs as a basis of measurement via a programmed microcontroller PIC16F877A. This value in (KG) is then displayed on a LCD.

This project consists of both hardware and software components which functions together to produce the final results. Regardless of the outcome of the project, I have totally learned a great deal from this project, enjoyed the process of learning and placing bits and pieces of knowledge that I have obtained from various subjects into completing this project to the best of its requirements.