ABSTRACT

Along with growth of science and technology, nowadays the system computerize have a lot of used in warehousing process at industry manufacturer. What mean by system computerize here is process of incoming goods record-keeping and the secretory goods from and to different job station automatically. In developed country, system computerize do not only be used for the incoming goods record-keeping and the secretory goods but also be used for the goods intake from and to different job station automatically. Technology that used to process record-keeping of goods and goods intake automatically this conducted by a automatically transport vehicle called by Automated Guided Vehicle (AGV).

Therefore in this final project will be designed a model AGV therewith its trajectory. And to facilitate the operator in order to earn and to know the real circumstance from condition and position AGV, hence will be designed also Human Machine Interface (HMI) as software which can be implemented as a monitoring system of AGV in executing its function as its means as automatic transport.

This Final project divided into six chapter that is Chapter I is about background, writing target, benefit from this final project, and the problem definition. Chapter II contain about literature study about PLC (Programmable Logic Controller), CX-Programmer, Human Machine Interface (HMI) and the robot. Chapter III contain system modeling to be made conceptually and also problem solving frame formulation from this final project. At Chapter IV is about existing systems analysis and also about designing of Automated Guided Vehicle (AGV). System analysis which have been made, will be discussion at Chapter V. And at Chapter VI is about conclusion from this final project result and also given suggestion for the next research or for the implementation.

Conclusion which can be taken away from the designed of this Automated Guided Vehicle (AGV) is that designed AGV have been able to travel the trajectory from weaving department warehouse to finishing department, and identify its position automatically. AGV designed from appliances or components capable to recognize scope work its without influence existence from outside, all this appliances integration united to develop an appliance transport automatically. Design the HMI (Human Machine Interface) monitoring system of AGV used to know condition AGV and able to give information in real time about data of time AGV so that facilitate operator in doing monitoring, operation, and reporting of time data.

Keywords : Automated Guided Vehicle (AGV), CX-Programmer, PLC, HMI