DESIGN AND BUILD A PROTOTYPE OF A PACKAGE SELECT TOOL BASED ON BARCODE CODES AND IMPLEMENTATION OF HUMAN MACHINE INTERFACE (HMI) USING LABVIEW

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ABSTRACT

Human civilization continues to develop in all sectors, one of which is buying and selling. Humans can buy and sell easily via cell phone anywhere at any time. The reach of this buying and selling covers a wide area and between countries. To deliver purchased goods, many companies provide goods delivery or expedition services in package form. In this research, a package sorting prototype will be created based on barcodes and the implementation of a Human Machine Interface (HMI) using LabView to assist humans in sorting packages. This prototype uses a GM66 barcode scanner sensor for barcode scanning, an SG90 servo motor as a package sorter, an FC-51 infrared sensor as a passing package detector, a 12V DC motor as a conveyor driver and a ZK-5AD DC motor driver as a DC motor rotation controller. The success rate for the GM66 barcode scanner sensor was 100%, the FC-51 infrared sensor was 100%, the DC motor driver and DC motor were 99.8%, the servo motor was 99.9% and the overall system success rate was 100% in 20 tests.

Keywords: expedition, barcode, Human Machine Interface (HMI).