ABSTRACT

The process of placement of goods (the process of packing and sorting) in many industries use conveyor that serves only to one object only because of the characteristics of different objects, so that when one conveyor is damaged then the other conveyors can not be replaced, it is very inefficient. Based on the weight difference, a conveyor can be used for multiple objects. The method used in this thesis is a method of digital scales are controlled by mokrokontroler. Sensor load cell is used for heavy censorship, then the buck converter circuit is used as a driver circuit of the DC motor and circuit ATmega16 is used as the minimum system solenoid valve driver circuit. Sensors take the data of an object that has been weighed, then the data is processed by the microcontroller's internal ADC is then processed to order the relay of the solenoid valve in order to work, so it will also work with pneumatic push objects according to weight such as 0.1 kg, 0.2 kg, 0.3 kg, 0.5 kg. This tool can weigh and sort items with accuracy to 91.75%.

Keyword: Microcontroller ATmega16, Load cell, PWM