

SEMI AUTOMATIC FOLDRON (FOLDING AND IRONING) MACHINE

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ABSTRACT

The upsurge of the opening of business start-ups in the field of laundry or laundry services is the background of making this prototype. In the current laundry business, the process of ironing and folding clothes or clothing is still using human labor. In the research carried out by seniors with the title Semi Automatic Folding Machine, it has been able to do the clothes folding automatically. To meet the needs of the laundry business, the prototype Semi Automatic FOLDRON (Folding and Iron) Machine was designed in this study. The advantage of this prototype is that it is equipped with an automatic heater functioning as an ironing process.

The workings of the prototype ie the clothes system were placed on top of the prototype, and then it was heated with a heater. After a few minutes, the heater was removed and the clothes were folded. The design of the Semi Automatic FOLDRON (Folding and Iron) prototype machine consisted of Arduino Due as a microcontroller, sensor limit switching on each movement of the device to control the ups and downs of heaters and movement of folding boards or flip folders, DC Faulhaber motors as controllers of folding boards or flip folders. The use of Arduino Due on this prototype was adjusted to the needs of the I / O design which supports the process control on the prototype, likewise with the selection of the limit switch sensor and DC motor. As for controlling the iron base, a GM42 DC motor and Quartz Heater element as a heat source for ironing the clothes were used.

From the results of the study, it was found that the spread of heat on the base of the iron coming from the heating element that is Quartz Heater generates even heat, and folding the work clothes as desired.

Keywords : Foldron, Arduino Due, Motor DC, Limit Switch.