ELECTRICAL ENERGY DESIGN AND ANALYSIS OF FISH CHIP CUTTER MACHINE AUTOMATICALLY

Student Name : Wildan Akbar

NIM : 3204181208

Supervisor : Marzuarman. S.Si., MT

ABSTRACT

Chips are dry dishes made from ingredients that contain high enough starch and also fish chips are a type of snack that is sensitive to volume expansion during the frying process. To maintain and improve this fish chip business, the author makes every effort to pay attention to the obstacles to be overcome as well as improvements. Therefore, the author made a research on automatic fish chip cutting machine. The purpose of this study is to help facilitate the work of small entrepreneurs in making fish chips to be more effective, both in terms of marketing, sales, energy and time. The research method of this fish chip cutting machine uses a 1 Phase AC motor using 2 pullies connected to a V-Belt. From testing the DIV268N motor Driver for dough loads can move with a difference of 1% after being measured. The power used in cutting fish chips with an average power used of 135 Watts under load conditions with an average %Error of 0.024%. To program this automatic fish chip cutting machine, it uses several additional sensor components including Arduino UNO, Stepper Motor, DIV268N Motor Driver and LCD. All these components must be assembled into one another in order to be connected and connected properly.

Keywords: Cutting machine, Arduino UNO, DIV268N Motor Motor Driver