DEVELOPING THE FURNACE AND CONTROLLING THE TEMPERATURE FOR PLASTIC WASTE PYROLYSIS

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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People nowadays start to concern about plastic pollution. Some of them has started to create a machine that able to produce a new energy from plastic waste. Most of them create a pyrolysis machine with heat source from fire. In this thesis, the pyrolysis machine will be different, because the heat source is from electricity with the purpose to be useful in everyday life, easy to operate, and safe. In this thesis, there will be also heat control to prevent too much power consumption if this machine is used in household activities. The control will be using a common controller, which is Arduino and with some help from temperature sensor and solid state relay for optimal results. The discussion will be focused on the mechanical design and electrical design. Common materials will be applied to produce this pyrolysis machine so it is possible for everyone to create it.

Keywords: Pyrolysis, Arduino, Temperature Sensor, Solid State Relay.

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DEDICATION

I dedicate this works to God

My Family

My Friends

My University

And for the future of the country I loved : Indonesia

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