

Cat G.E.N.T.S (General Environment Naturally Through System)

This thesis is presented in partial fulfillment for the award of the
Bachelor of Engineering (HONS) Electronics
UNIVERSITI TEKNOLOGI MARA



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Acknowledgement

I would like to express profound gratitude to Prof. Madya Aisah Mohamed who has been guiding and giving constant encouragement all the time. I also want to give deep regards to Nor Atlina Ismail for allowing me to refer to her thesis report. Special thanks to my parents for their constant encouragement. Without them this technical paper would not be possible.

Special thanks to my friends Norhafizi Ishak and Fizrie Shafiee for sharing knowledge, and helping me with resources. Without their generous help and moral support I will face a great difficulty along completing this final year project.

Finally let me express my love and thought for my gorgeous fiancé Sharina bt. Seman who always support and patient with me all the time. The only person who always motivate me whenever I am down, also calm me when I am stress. Thanks dear, I love you so much.

Abstract

Cat G.E.N.T.S (Global Environment Naturally Through System) is a semi-automatic toilet for cats. This system is designed to cater the need and the problem of the pet owners especially for cat's lover. The Cat G.E.N.T.S technology help raise the awareness of cat's owner about the danger of *Toxoplasma gondii* to their environment as well as its vital function as a toilet for cats. It uses Arduino Microcontroller as the brains that control all operations. Arduino GSM shield is used to send information to owner through Short Message Service (SMS). Moisture sensor is used to check the presence of cat feces, ultrasonic sensor to check the volume of sand available in the tank and two servo motor to get rid of cat waste and change the new sand in the litter tray. A temperature sensor is also used to monitor the temperature in the compost bin for optimum worm activity that eliminates *T. gondii*.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Cat has been domesticated for around 9 500 years [1] and now has recognized as the number one pet in the world. Cat ownership skyrocketed from year to year. There were lot of reason that cat tend to be choose as pet and companion. Their behavior lovely, cute and always clean themselves make people to choose them over other pet. Moreover, cats they also more quiet, behave themselves well, less complicated to care than other pets also made them adored by people. The latest American Pet Products Manufacturers Association surveys tell us that 77.7 million cats living in American household [2]. Thus it is very important for us to know the how to correctly take care of cats including it grooming, cleanliness, diet, as well as their waste.

Although many people believed that cat was simple and easy to take care, there were still quiet a number of cat owners feel that owning a cat is such a headache and lot of problem was faced. The most famous problem are house-soiling habit. House-soiling is the inappropriate urination or defecation of pet which always happen in the house. House-