PROPELLER CLOCK

NUR AMALINA BINTI ZULKIFLI
NURASYIKIN BINTI ISHAK

FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
MALAYSIA

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DECLARATION OF ORIGINAL WORK

Student's Declaration:

We, Nur Amalina Binti Zulkifli (2012670054) and Nurasyikin Binti Ishak (2012441958) being members of final year project declare that this report contains only work completed by our group except for information obtained from literature, company or university sources. All information from these other sources has been duly referenced and acknowledge in accordance with the University Teknologi Mara (UiTM) Policy on Plagiarism.

Furthermore, we declare that in completing the project, the individual group members had the following responsibilities and contributed in the following proportions to the final outcomes of the project:

Name	Student's ID	Responsibility	% Contribution	Si nature
Nur Amalina Binti Zulkifli	2012670054	1. Collecting information 2. Writing report 3. Material survey 4. Protot, , e , re, aration	50%	
Nurasyikin Binti Ishak	2012441958	1. Collecting information 2. Presentation Materials 3. Materials survey 4. Protot, , e , re, aration	50%	

Supervisor's Declaration:

I, Puan Shakira Azeehan Binti Azli hereby certify that the work entitled, Propeller Clock was prepared by the above name students and was submitted to the Faculty Of Electrical Engineering UiTM Cawangan Johor, Kampus Pasir Gudang as a full fulfillment for the conferment of Diploma Of Electrical Engineering (Power) and the aforementioned work, to the best of my knowledge, is the said student's work.

Supervisor signature:

Date:

19/3/15

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ACKNOWLEDGEMENTS

In the name of Allah S.W.T, The Most Gracious and The Most Merciful. Praise to Allah S.W.T, without His guidance, we weren't able to finish this assigned project within the time period given.

First and foremost, we would like to express our gratitude and appreciation to our beloved supervisor, Puan Shakira Azeehan Binti Azli who is very dedicated in showing us guidance and giving guidelines upon completing this final year project. She inspired us to work tremendously hard and creativity in order to finish our assigned project. Without her, the success of the project would be very difficult to achieve. Thank you very much, Puan Shakira Azeehan Binti Azli.

Apart from that, as to ensure that can we understand and can carry out our project well, we seek for various explanations and opinions so that we can always improve our project. Therefore, we would also like to thank our fellow seniors and friends in sharing information and helping each other out. We manage to help each out in getting things done such as how to use the software and application of Proteus and Ares in simulating our circuit. In addition, special thanks to our friend for helping us out in arranging schedule and other things that are necessary for us to carry out our PCB.

Finally, we definitely have to say that we are in debt to all of those who had help us through and involve in contributing ideas, recommendation and clarification and upon finishing this project. Without them, we also find that it is hard to manage this project alone. Thank you very much to all of you. We hope that we can repay you in the future. May Allah bless you for all your sincere deeds and kindness.

ABSTRACT

The propeller clock is an electronic devices which has a series of LEDs on board that rotate with the help of a motor to give an illusion of a watching a clock (Digital or Analogue). This requires a DC motor which rotates the PCB connected to it with sufficient speed so as to create the illusion. The LEDs are connected to a microprocessor PIC16C84 or 16F84 which is so programmed to switch ON and OFF the LEDs in sequence and with a time delay to approximately match with the rotating speed of the motor. One of the phases of the DC motor is directly feedback to the microprocessor to identify the position of the motor at any instant. The important components for this project is DC motor, PIC16F84 and others.

Troubleshooting must be carried out when the circuits were not functioning as expected. The circuits have to be troubleshoot to define the location of the fault occurs. Unsuitable component. In the PROTEUS library, there are too many components from the same type and there are look alike. However, the datasheet or characteristics is not the same and not compatible with this circuit. Some devices are active while others are not active. In order to make sure that the simulation is success, try and test methods are used until the desired result is achieved. It so hard when to convert to Gerber file. The project must be rearrange back the position of components to ensure the best position of the device.

. The circuit should be more simple then the people can use this device for event and at home. Decide to add some buzzer to make some sound. This project must change motor or CPU fan that can not make some noise when it rotates.