AUTOMATIC PET CLEANER

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ABSTRACT

Pet cleaning system which is my title mainly is a system that will clean a pet with settings that is input by user and hence system will act accordingly. As this would involve a lot of interaction between user and the system, a friendly user interface has to be design so that the system is easy for user to understand and operate it. This is not a robotic system which will automatically wash the pet but will be giving shower and drying for particular settings that is set by user.

System will be mainly controlled by a PIC16F877a; main parts will be connect to it and will be interact with user by using 2 buttons and a 16x2 LCD screen. As the requirement for this title is programmable shower duration, water temperature, water pressure, water level, drying duration, and drying temperature as well, few main applications will be involved.

PIC16F877a is programmed with different conditions as user will be provided options to be choose each condition has its own function to activate any of the applications. For shower part the main component will be involved in controlling water supply, water level detection, and water pressure. Solenoid valve is chosen to control the water flow as it is dc 12v supply operated, valve is normally closed which means when positive voltage supplied into it the valve will open to allow the water flows in.

Water level detection will be using a simple circuit that will having a LED that will on when the level is high enough, if the water in tank is not enough LED light will goes off and signal will send to PIC16F877A. Then the fuel pump of a car to act as a water pump to boost up the water pressure, this pump is operated in dc as well.

Last and not least water temperature will be achieved by using an AC heater that is design for aquarium, as if the water temperature too high will hurt the pet. In dryer part a dc fan will be used, the maximum voltage it could support is 12V, the higher the voltage supply into it the stronger the wind it could produce then dryer part coil that is extracted from a hair dryer is used.

By combining every application that is mentioned in above with main controller PIC16F877a will thus complete the requirement that is suggested for the title, more details on how the applications will work to match or meet user's input setting will be explained in this report.