

**FACULTY OF ELECTRICAL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
PULAU PINANG**

**FINAL REPORT:
AUTOMATIC HAND WASHER AND DRYER**

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ABSTRACT

The purpose of the study is to design the amazing helpful project that can enhance the healthiest life to the human and to reduce the level of sickness among the people today and for the future life which is the automatic hand washer and dryer machine that are operating in automatic way which includes no sensory touch between hands and this machine. This system is manipulated by a sensor to detect and perform desired task given. Two stages involve in design automatic hand washer and dryer are software design and hardware design. The PIC 16F877A microcontroller along with PIC start-up kit SK40C and IR sensor which make this project smoothly operate like what have been programmed. For the output, this project use water pump to pump the water, soap and sanitizer. Besides that, light indicator which are connected in parallel with all the pump also used to show the user current operation of the machine and buzzer will trigger to inform the user the end of the operation. The Hand Washer and Dryer machine was successfully designed and simulated. The simulation shown that this machine will operate based on what have been programmed to PIC 16F877A when the infra-red sensor detect the user's hands. The machine will restart if the sensor does not detect any presence of hands. Thus, this project allow the users wash hands without a single touch and save the environment because use dryer to dry user hands instead of tissue paper.

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