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FINAL REPORT:
SMART HOME SYSTEM WITH KEYPAD

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ABSTRACT

Smart home system is an inexpensive technology, can be implemented for several applications such as an security, control lamp, control fan and all many more home appliances. Smart home system technology nowadays which is a matured technology that has been widely deployed by various organizations as part of their automation system for example GSM technology and wireless system. The main objective of this project is to design and implement a smart home system that the appliances can be controlled automatically by temperature sensor(LM35) and motion sensor(PIR). In this project, we use sensor for automatic mode while we use a keypad as a switch to control all the appliances in mode manual. This system consists of two main parts which include: the hardware and the software. The hardware consists of the ATmega328 microcontroller (Arduino Uno), DC fan, super bright LED, keypad 4x4, LCD displays, LM35, PIR sensor and power supply circuit. The USB serial communication will communicate to the host computer where it was interfaced with the Arduino uno main board. The advantage of using this technology is it can reduce number of switch in our home, less energy required as long as we use mode automatic, can save a cost because this equipment used in this project are inexpensive and very important is this technology is eco-friendly.

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