

ABSTRACT

Almost all hospitals have nurse caller patient bell. Nurse caller patient bell generally consists of 1 push button that located in the patient's room and then, the tool in the nurse's room consist of small LED and alarm with the room number. Small LED sometimes complicate the nurse to make sure the room who rang the bell. The absence of notice to the patient, if the nurse is busy, sometimes make the patient have to wait for some time without any certainty. The absence of patient's complaint sometimes make choices nurses have to go back again to the nurse's room to take the equipment that needed to handle the patient. This is less efficient.

In this final project has been designed a tool, namely nurse caller patient bell at the hospital based on microcontroller with notification feedback. In this tool, I am using ATmega16 microcontroller as a devices second brain . In this tool, there are 5 choices for each patient's treatment menu, namely: infusion runs out, the patient wants to go to the toilet, high / lower the AC temperature , the patient takes the medicine and hygiene. This tool can display the number of rooms and patient's complaint on the nurse's monitor. In the nurse's room there is also a buzzer to issue an alarm signal as a marker of calls from patients. There is also an LCD in the patient's room, the LCD is used to display a notification from a nurse. As another indicator for notifications, the two LEDs, green LEDs and red LEDs.

In this final project have been obtained test results on the accuracy of the data received and nurses monitor patients for the notification on the LCD in the amount of 100 % for 25 push button testing by using 20 cm, 50 cm, 100 cm, 150 cm cables and with the multiplexing technique. On the test results of each block of the tool, has been obtained in accordance with a voltage range that is expected in the amount of 4,51 Volt. It can be concluded that the design of this final project is succeed.

Keywords: Bell, Notifications, Multiplexing, ATmega16 Microcontroller.