

ABSTRACT

Atmega32 Microcontroller be base on Design and Implementation of Body Weight Scale with Voice

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The purposed of this paper is to create and design the measurement system of body weight based on microcontroller with voice as an indicator and result of measurement. The rapid of technology development make change from analog to digital system in everywhere, include measurement system, to be our paper background according to this problem.

This system works by exploiting the shift value of the potentiometer which occur due to changes in pressure on the spring scales. Potentiometer connected to the A0 pin on A port microcontroller, which then performed the analog to digital conversion process. Change the value of this voltage level delivered to the C port on C2, C3, C4 and C5 pin are connected to the optocoupler as a switch of mp3 player. optocoupler will activate the buttons on the mp3 player in accordance with orders given by the microcontroller suitable to value change of voltage level. The speakers are connected to the mp3 player will give voice response that contains the pronunciation of the value of the measurement results on the scales

In test results, the scales have not been able to work well for next and previous buttons still can't be well controlled. Giving a very short execution time resulting in the execution of multiple processes is not running smoothly. Granting long time execution for the play / stop button resulted in an mp3 player death, while granting too short delay time make the resulting sound is not perfect.

Keywords: potentiometer ,microcontroller ,optocoupler, analog measurement