

CALFIT

Step counting is an important index of motion activity; in our daily life we spend a lot of energy for climbing stairs. In this paper, this is a device which continuously monitors the heart rate and the amount of calories burned during stair climbing in a day using a knee cap having Flex sensor. Our main goal is to improve the energy and to strengthen our heart. The basic circuit consists of Heart rate sensor, Flex sensor, Atmega-328 microcontroller and an LCD module. The flex sensor is a device which changes the resistance when flexed; using that we can find voltage by connecting its output to the analog pin of the Arduino board. At 5v it would give 1027 and at 0v, the output would be zero. For calculating the calorie burned, the required data such as gender, heart rate, weight and time taken for climbing the stairs are entered. For obtaining the heart rate a ppg circuit is used and it is displayed in the LCD. By substituting these values in an equation, the calculations are done and the calories burned can be displayed.

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