

ABSTRACT

Ideal body weight is everyone's dream, this time the people have their own difficulties to measure both simultaneously if the current weight scales and height measurement is a different tool. So maybe the weight and measurements were taken at the same height using a single tool. So that would make it easier to measure both communities.

In this final project will be made a device to measure height and weight of the human body capable two physical quantities are only using one tool. This tool will use a strain potentiometric, that is made by an analog scale and potentiometric, used to measure weight and ultrasonic sensor type Ping)))™ is used to measure human height. As for the calculations used ATMEGA8535 AVR microcontroller and the results are displayed on the LCD. Display on the LCD of the measurement results of weight and height in centimeters and kilograms. There is a comment about ideal body weight on the LCD such as underweight, normal, overweight, and obese. So that user not use to calculate the ideal body weight.

This tool is expected to be used to measure the height and weight of the human body quickly and thus facilitate the practical know the ideal weight. With this tool which is a merger between heavy weights and heights, People can measure them simultaneously and quickly. Display on the LCD enables users to see the results of measurements easier. After testing the device has error tolerance about $\pm 0,684$ % for body weight dan $\pm 0,157$ % for body high.

Keywords: measurement, weight, height, human, microcontroller, LCD.