ABSTRACT

To find out if our body ideal or not, we have to know the height and weight. To know your height and weight, we perform measurements manually. Manual on measuring height and weight measured with different tools and need help from others. Therefore, in this final project designed tool that can measure weight and height as well as giving information on the classification of body and paint suggestions in the form of ideal weight by using a single tool.

This tool uses the HC-SR04 Ultrasonic Range Finder for measurement height, Load Cell sensor that is connected to the HX711 for the measurement of weight, the Arduino Uno is used for controlling the control system works, the LCD to display the results of the measurement and the calculation of the formula. This tool also use the BMI formula to determine the classification of the body as well as using the formula Borca to calculate ideal body weight based on gender.

Investigation results of the testing carried out to 30 people, weight measurement results obtained with an average accuracy of 95,39% and height measurement with an average accuracy of 99,74%. The accuracy of the calculation of BMI formula that is 100% in accordance with the calculation of BMI formula manually, while the average calculation accuracy formulas borca for men that is 99.42% and the average calculation accuracy formulas borca for women that is 99,22%. So it can be disimpulakan that this tool works quite well

Keywords : **Arduino UNO,** ***Weight, Height,*** **LCD, HC-SR04** ***Ultrasonic Range Finder, Load Cell,*** **HX711,** ***Formula*** **BMI,** ***Formula*** **Borca**