

ABSTRACT

Currently measuring devices for height and weight in sports training centers generally still use traditional tools, and for recording and entering data into a central database it is still done manually. Therefore, automatic height and weight measuring devices are made using ultrasonic sensors and load cell sensors.

Ultrasonic sensor is a sensor that functions to convert physical quantities (sound) into electrical quantities and vice versa. By using this sensor we can find out the height to be measured. In addition to the ultrasonic sensor, this tool uses a load cell sensor to measure the weight to be measured, HX711 to take data from the weight sensor and convert it into a signal that can be read by the microcontroller, LCD to display text, graphics or visual information to the user. This tool is connected with ESP32 and firebase. This height and weight measurement tool is based on the Internet of things (IoT).

From the results of the tests carried out, the tool can work automatically to measure height and weight.

Keywords : Ultrasonic Sensor, LoadCell Sensor, ESP32, Web, Firebase, HX711, Internet of Things.