

ABSTRACT

Walking is an alternative for humans to be able to lose weight. However, just by walking, we cannot know the footsteps accurately. Therefore a foot counter tool was designed using solar cells. Footstep counter or pedometer is a tool that is needed for someone who often or likes to do walking sports. With this foot step counter, users can find out their abilities and how many steps they take when walking.

This step counter system is able to count the user's footsteps when walking, plus this system is environmentally friendly because it uses solar cells as an alternative power supply. In this step counter system, the system recognizes patterns of footsteps using the step counter method in which the acceleration of the user's footsteps is detected by the accelerometer sensor, then the sensor data will be processed using Arduino Nano which is a microcontroller and the results of microcontroller data processing will be sent to an LCD that displays has been connected between the system and a sensor that will display the results of the footstep count by the system. The results obtained, this system is able to count steps with an accuracy of up to 98% and with an error value of only 2%. So that this tool is accurate and can be used anywhere and anytime because there is a battery to store solar cell energy.

Keywords: *Solar Panels, Monitoring, Power Supply, Detection Sensors*