

Abstract

The aim of study, is to collect gait by the wearable sensors attached to the person's body, then we propose a homemade system called Digit Eye Jockey. This system gathers a mechanical structure and an electronic device based on potentiometers for measuring spatiotemporal parameters and joints angles in the sagittal plane for hip and knee and in both sagittal and transverse planes for the ankle. The responses are very linear and the relative error is less than 5%. This instrument is a robust and light tool to assess the instantaneous spatiotemporal and articular parameters during gait, over a great number of steps, on any type of ground and even outdoors