

Smart Pants: Spinal Health and Human Activity Monitoring Wearable Device

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Purpose Nowadays, we often sit in our lives to carry out daily routine work such as eating, driving and working in office etc. However, sedentary or sit incorrectly will have a bad influence on our body blood circulation which becomes slow, rocker leg will cause spine variant. Without affecting our daily lives, Smart Pants is a wearable device which can help monitoring and recording human activities. It can also help people to develop good posture habits, so as to prevent symptom which caused by sedentary posture. **Features** •Using 4 resistive pressure sensors in underpants for monitoring, instantly display the results on the screen to users •No geographical and time boundaries, users can be monitored at anytime and everywhere •Pants are daily necessity for most people so no additional wearable devices are needed •Light weight and comfortable •Can be connected with smart phone via Bluetooth in the future. User can easily get access into the statistical results **Subsequent development** •Use the built-in battery to increase the sustainable use of time. •The pressure sensors and the circuit board will be placed inside the under pants during sewing so as to improve appearance, reduce weight and increase comfortability •Adding temperature sensing, this is to avoid constant legs rubbing cause overheating •Model designed specifically for women's •"Prevention is better than cure", the human consciousness is the best medicine. Using Bluetooth or other communications technology, with designated computer software applications and smart phones, we can carry out statistical analysis. The result can be clearly shown to users. This helps the users to correct and improve their performances.