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LIFTING COACH

HARDWARE, CIRCUITS, & SENSORS

Sensor system for implementing and monitoring safe lifting techniques.

TECHNOLOGY TYPE

App
Software
Biosensors

STAGE OF DEVELOPMENT

- Preliminary results for load estimation acquired.
- Validated measurement of carried load.
- Real-time software display and data capture.

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Reference Number: U-6550

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TECHNOLOGY SUMMARY

According to the Bureau of Labor Statistics, injuries to the back resulted in 19.6 percent of work nonattendance cases related to injury in 2012. Many workers, even after recuperation, encounter risk of further injury by repeating poor lifting practices.

Lifting Coach is a sensor system designed to mitigate the risk of on-the-job back injury. This system includes insole sensor hardware and accelerometers that integrate with a mobile application for real-time feedback. The app audibly warns users when they use a high-risk posture or operate beyond their load capacity. It also advises users to take breaks or make postural changes. *Lifting Coach* helps employers manage operations and adjust work practices by recording workers' risk estimation results for each shift and generating daily reports that indicate worker fatigue and exertion.

FEATURES AND BENEFITS

- Integrates easily into worker outfit.
- Provides real-time mobile app feedback.
- Reduces long-term impacts of acute lower back injury.
- Records and analyzes long-term lifting exposure data.
- Enables worker scheduling motivated by individual safety metrics.

INVENTOR PROFILE

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DATE UPDATED: 7/25/2019