



MOVEMENT MONITORING SYSTEM

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The Invention

UW-Madison researchers have developed a computer vision-based systems that leverages a deep neural network (DNN) for the automatic estimation of a load being lifted by an individual. The DNN was trained using video input of various body parts (~ ten) being tracked during movement while lifting a variety of loads. The trained system, including the DNN, can then be used to observe individual lifts and to provide an estimate of relative lifting load based on movements and trajectories. At present, the system outputs a relative level of exertion (e.g., 25-100%) of maximum lifting capacity.

Applications

Video-based software system for assessing workplace ergonomics and safety.

Key Benefits

Evaluates ergonomics in the workplace to ensure safe lifting practices.

More efficiently estimates load without actually needing to weigh objects.

Additional Information

For More Information About the Inventors

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Tech Fields

- [Information Technology : Computing methods, software & machine learning](#)
- [Information Technology : Image processing](#)

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