Docket #: S22-372

Wearable device to assess fatigue

Stanford researchers have created a novel wearable device and system to assess fatigue on the user based on electrical activity associated with an eye blink of the subject.

Fatigue, particularly while operating a vehicle or working in a workplace, can pose health and safety concerns for an individual and the surrounding environment. This invention provides a real-time assessment and feedback on fatigue status of the user and includes a headset that alerts the subject of their condition, provides measures to keep the subject alert, and communicates the subject's condition to a command center.

Stage of Development
Proof-of-Concept

Related Technology
Stanford Docket S18-486-Portable Nystagmus Detection and Monitoring Device for Diagnosis and Management of Vestibular Disorders

Figure:

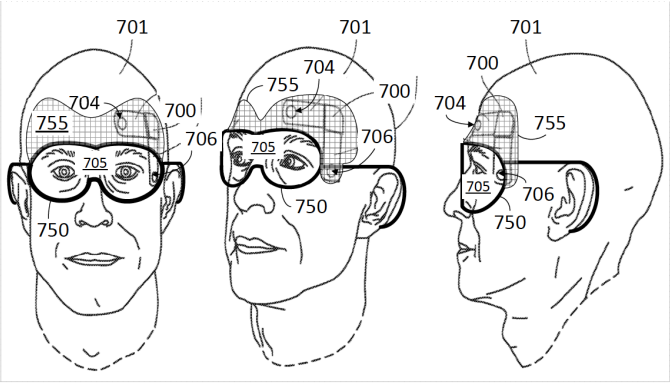


FIG. 7A FIG. 7B FIG. 7C

Image credit: Inventors

Figure description: Illustration of a headset including a sensor for detecting eye blinks from a user.

Applications

- Assess the fatigue of the user (i.e vehicle operators and workers)

Advantages

- **Increases safety**
- **Novel and portable** - first discrete and wearable device to assess fatigue
- **Real-time assessment** - headset contains memory storage and processor circuit to provide instant feedback to alert the subject, awaken the subject, or communicate the feedback to a center

Patents

- Published Application: WO2024059217
- Published Application: 20260090749

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