BASELINE NC ™

Stay Safe   Stay Smart   Stay Alert

Improving workplace safety with advanced fatigue monitoring

What is BaselineNC™

Baseline NC™ is a predictive fatigue detection device, developed to prevent workplace incidents. It offers real-time monitoring through an unobtrusive wearable device worn around the wrist. It's designed to be lightweight and comfortable, allowing for extended wear without causing discomfort and can continuously monitor fatigue levels throughout the day, without interfering with operational activities.

It proactively logs and analyses biometric data in real time to provide pre-emptive alerts caused by lapses in human performance, fatigue, inattention or an acute health issue.
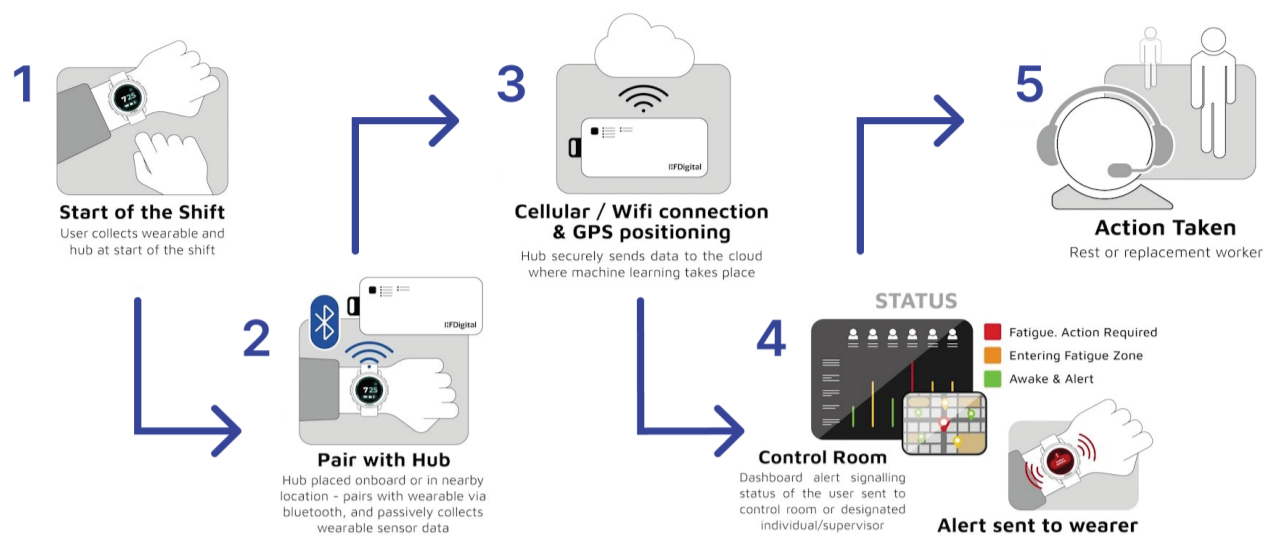
The system baselines the wearer, triggering alerts when it detects a statistically unusual state.

The biometric data passively collected is then sent to the hub devices which are secured within the workspace or attached to the wearer's clothing.

How it works:

1 Start of the Shift
User collects wearable and hub at start of the shift

2 Pair with Hub
Hub placed onboard or in nearby location - pairs with wearable via bluetooth, and passively collects wearable sensor data

3 Cellular / Wifi connection & GPS positioning
Hub securely sends data to the cloud where machine learning takes place

4 Control Room
Dashboard alert signalling status of the user sent to control room or designated individual/supervisor

STATUS
- Fatigue. Action Required
- Entering Fatigue Zone
- Awake & Alert

Alert sent to wearer

5 Action Taken
Rest or replacement worker

Key Features:

Compact & non-invasive - lightweight and discretely worn on the wrist without obstructing the user's activities and movements

Real time data - proactively logs and analyses biometric data in real time to provide pre-emptive alerts

Accuracy - the data collected through the five biomarkers gives an accuracy rate of 98%

Ease of use - the hardware uses a simple interface which requires minimal user intervention, and a durable power source to last a full shift

What makes Baseline NC™ different:

BaselineNC™ is part of the IHF Group which is a leading global organisation in human factors, specialising in human behaviour and performance which engineered the development of the system through it's deep understanding of fatigue management. An innovation partnership led project, spearheaded by UKTram in collaboration with Edinburgh Trams, Transport for Edinburgh and other partners.

The system features five key biometric sensors - monitoring heart rate variability, blood oxygen saturation, skin temperature, galvanic skin response, and a 6-axis accelerometer - continuously assessing the wearer's condition, creating a personalised fatigue profile with 98% accuracy.

Blood Oxygen Saturation | Heart Rate Variability (RR) | Skin Temperature | Six Axis Accelerometer | Galvanic Skin Response

About IHF

The IHF Group helps mission critical organisations around the world identify and solve their Human Factors challenges pragmatically and efficiently.

We provide skilled Human Factor practitioners to implement an array of consulting, training and software solutions to identify and minimise the likelihood of error and improve overall human performance. The IHF Group is a registered consultancy with the UK Chartered Institute of Ergonomics and Human Factors (CIEHF).

Email **info@ihf.co.uk** for more information