mjn-SERAS

1. Description:

mjn-SERAS is a highly specialized fine technology from Epilepsyalarms in England for seizure detection.
The mjn-SERAS monitors brain activity and uses artificial intelligence to alert users and carers of an imminent seizure, 1-3 minutes notice before an episode occurs.

Over time, using highly sophisticated sensors that learn from the user's brain activity, the mjn-SERAS can predict imminent seizures even sooner. (continuous learning model)

2. Technology

a. Configuration:

- When you first start to use the mjn-SERAS, you will need to activate 'training mode'. The sensors will begin to monitor the user's brain activity and will start to create your personalized algorithm. During training mode, a minimum of 5 seizures must be recorded so that the algorithm can understand how your body, specifically your brain, responds to a seizure. Once the AI has processed the seizure data, your device is ready to use

- Even if the alarm is false, the data is used to improve how the AI understands your unique requirements continuously.

b. Architecture:

- mjn-SERAS uses 3 sensors to monitor brain activity which is sent via Bluetooth to the user's mobile phone

- The mobile app indicates three risk states:
    - Low risk – Minimum risk of seizure occurrence.
    - Medium risk – No significant risk of seizure.
    - High risk – Visual and acoustic warning signal alert.