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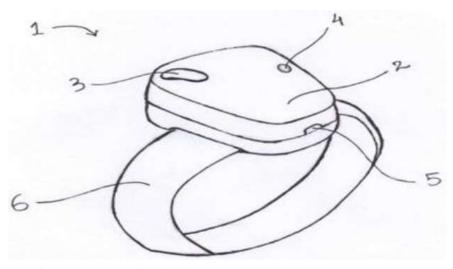
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(57) Abstract:

A situational awareness and alarming system developed in the form of a wearable wrist band capable of alerting a deaf person of any loud noise in the vicinity such that the person stays cognizant of his/her surroundings. The system is equipped with such miniaturized circuitry that picks up noises of particularly frequencies (which can be specified on the band by the user) from the environment and provides feedback to the user through vibration. The band also has the capability of signalling the user the direction of the source of sound with the assistance of an array of microphones built into its circuitry. Also, using Machine Learning algorithms, the band provides a different set of vibratory feedback for different sounds such as ones coming from humans, car horns, falling of a heavy object, etc.



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