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Stepstrive Empowering Safety

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Abstract: *The Project is Personal safety, particularly for women, remains a paramount concern in today's society. This project report outlines the development of a compact and efficient women's safety device designed to enhance personal security through the integration of several critical technologies. The device employs an Arduino Nano, GSM SIM800L, NEO-6M GPS Module, DC Buck Converter, and a push button for activation, ensuring a practical and user-friendly safety solution. At the heart of the device is the Arduino Nano, a small yet versatile microcontroller that manages the system's operations. The GSM SIM800L module is used for reliable communication, enabling the device to send emergency messages and make phone calls to pre-defined contacts. This ensures that, in the event of a distress situation, immediate assistance can be requested. The NEO-6M GPS module provides accurate location tracking, transmitting real-time GPS coordinates to emergency contacts. This feature is crucial for ensuring that the user's exact location is known, allowing for swift and precise intervention. The DC Buck Converter is incorporated to stabilize the power supply, ensuring that the device operates efficiently even with variations in input voltage. This component helps in maintaining a consistent power output, thereby extending the device's operational life and enhancing its reliability. A push button is included to allow for straightforward activation of the emergency alert system. When pressed, the button triggers the device to send a distress signal along with the GPS coordinates to designated contacts, ensuring that help can be dispatched promptly.*

Keywords: Personal safety