

Geoguard: Smart Safety Device with Geofencing Tech

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Abstract: *The Safety Smart Watch is an innovative wearable device designed to enhance personal safety through geofencing technology. This smartwatch enables real-time tracking and monitoring of individuals, providing peace of mind to families and caregivers. By setting virtual boundaries (geofences) through a mobile application, the smartwatch alerts users when the wearer enters or exits predefined safe zones, such as home, school, or workplace. The device Integrates GPS, GSM, and IoT technologies for accurate location tracking and seamless communication. Additional features include an SOS button for emergencies, fall detection, and two-way communication for immediate assistance. Its compact design, energy-efficient operation, and compatibility with smartphones make it ideal for children, elderly individuals, and at-risk populations. The Safety Smart Watch aims to bridge the gap between convenience and security, fostering a safer environment while promoting autonomy for the wearer.*

Keywords: IoT, Children safety, Arduino mega [ATMEGA 2560]; GPS,GSM, Sensor, Mobile communications, Smart phone