Innovative Safe Zone Technology to Reduce Gun Violence

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The purpose of Innovative Safe Zone Technology is designed by the researcher to save lives by reducing gun violence, especially mass shootings. An Android smartphone software application model was developed with the core functionalities of the technology using the Unified Modeling Language design process. The technology uses open source and standards of Android Studio, Google APIs, Java and Bluetooth, which is compatible for any vendor's gun. This technology defines safe zones, such as schools and public places including open spaces, which are indicated on the map. It then uses the GPS position of latitude and longitude to determine if the smartphone is located inside or outside of a safe zone. Based on its safe zone position, the software will send a signal through Bluetooth to the authorized paired gun to allow or restrict triggering by using a smart gun or a gun with a trigger lock. Due to safety, a Bluetooth speaker was used in the researcher's model to emulate a gun. This technology was successfully tested with a smartphone in safe zone areas such as schools, colleges, etc. against the design goals. This technology also can be adapted to wearable devices, or directly on the gun itself. Though accidental or unauthorized gun usage restriction is being taken care by some other technologies, there are no technology solutions available to prevent gun shootings in safe zones also. This technology needs to be implemented by gun licensing authorities setting safe zones and making gun trigger lock or smart gun mandatory. This will reduce the number of mass shootings as three fourths of the mass shooters have used legally obtained guns since 1984. This Technology is original, cost effective, simple, requires no field installations, and can be implemented quickly.

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