

ACCIDENT PREVENTION MECHANISM FOR ELDERLY PERSON

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ABSTRACT

Falls are the most common causes of accidents for elderly people and often result in serious physical and psychological consequences. When the fall occurs, People face double jeopardy. Firstly, it is evident that the fall itself may hurt the human body. In addition, if the fall happens at an isolated vicinity, and the sufferer cannot be rescued in time, it will make the situation worse. For older people due to their weak body, self-care and self-protection capabilities which are down makes them prone to accidental falls, if it is no timely rescue occurs, the fall may lead to very serious consequences.

Some experts point out that many serious consequences are not due to a direct result of the fall, rather it is due to untimely treatment and care. When falling occurs, the victim can notice in a timely manner and get necessary information to paramedics, it will greatly reduce the harm caused by the falls.

The proposed project is not only for the elderly, and in many cases, the fall alarm is very helpful, particularly when it occurs from high elevation, for example, people in mountain climbing, building, cleaning the windows, paint and roof repair.

This project uses the 3-Axis Accelerometer sensor to sense the user's fall, and use of an RF module for sending the information to a guardian in a timely manner. To get the signal from RF module, the receiver will connect to the microcontroller and the microcontroller will activate the alarm to the suggested the guardian. A real time clock is also integrated to the system in which it stops to run the moment the user experiences an accident, this also triggers an alarm to the guardian signaling an accident has occurred.