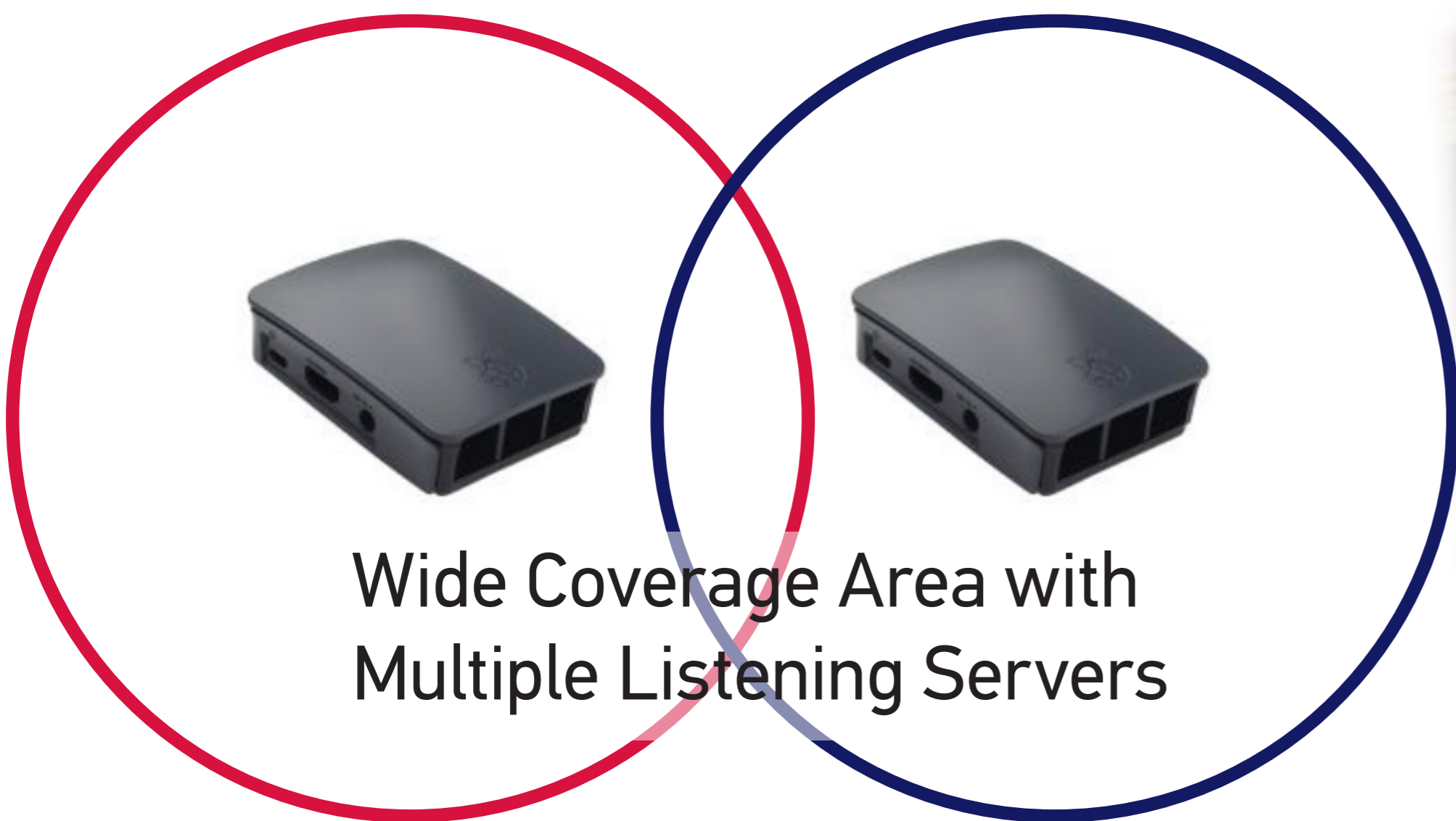


Elderly Monitoring Tag

The objective of this project is to develop a system with fall and step detection algorithm with reduced power consumption by reducing Radio Frequency communication.



Step Detection



Fall Detection



Comparison for How Active a Person is



Reduced Power Consumption



Real Time Location Update



Recovery After Fall Detection



Differentiating Fall from Daily Activity

Multiple raspberry pi acts as listening servers which connect and listen to notifications from sensor tag devices. Sensor tag devices will send a notification when a fall is detected. A special raspberry pi is called main listening server which connects to a database and manages other listening servers. When a sensor tag move from one location to another, a command will be sent by main listening server to the listening servers at both location to connect/disconnect from the sensor tag.