



STORY

Mary is a retired elementary school teacher with a gentle personality who likes to grocery shopping and take walks and go to the nearby park to feed birds. However, in the past two years, she found that she often forgot the route and even got lost near a familiar supermarket and parks.

She was worried that her condition would be a burden to her family, but she was eager to retain the freedom to travel independently.





GOALS

- **Maintain Independence**
 - Be able to complete daily tasks such as shopping, walking, or attending activities without frequent reliance on others.
- **Reduce Anxiety about Getting Lost**
 - Lost Even if you temporarily forget your route, you can use the assistive tools to find a safe path.
- **Enhance Daily Confidence**
 - Reduce mistakes when traveling with easy-to-use tools, giving yourself and your family greater peace of mind.
- **Maintain Social Participation**
 - Be able to attend community events or meet up with friends on time, and stay connected to your society

DAILY USED ITEMS

- **Smartphone:** mainly used for contacting family members and receiving reminders.
- **Keys and carry-on bag:** the bag contains medicine, notebook and a bottle of water.
- **Smart bracelet:** used to monitor steps, heart rate and reminder time.
- **Anti-slip shoes and sun hat:** standard equipment when traveling to ensure safety and comfort.
- **Glasses:** used to see the map or instructions on the phone clearly.

MOBILE TOOLS

-  Walk to close place that less than 1 km (e.g. parks)
-  Take bus and subway for some frequent visit places
-  Children drive cars for long distance
-  Take taxi (e.g. Uber, Didi, Taxi-hailing apps)

Mary Patient

DAILY ROUTINE



- Take a walk to a community park, feed the birds or chat with acquaintances.
- Caring for plants in back yard
- Go shopping for daily necessities



- Make lunch at home
- Rest at home and occasionally attend interest classes organized by the community (such as handicraft classes or health lectures).
- Go to a nearby hospital for regular health checks or follow-up visits.



- Have dinner at home
- Go for short walks in parks and stay active.
- Visit family or friends who live nearby from time to time.
- Do some handicrafts or listen radios

68 year-old

Live with husband in the city of Vancouver, Canada

Retired elementary school teacher

- Hobby:
- Cooking
 - Walk in park after dinner
 - Planting in the garden of the living house
 - Crochet small items

PAINT POINTS

Cognitive and Memory Challenges

- Tend to forget familiar routes or destinations, resulting in frequent getting lost.
- Easily confused in complex road conditions (such as intersections or crowded areas).

Emotional stress and safety risks

- Feel panic or feel helpless when they get lost or stray off route.
- Ignoring the surrounding environment (such as vehicles, obstacles) may lead to safety accidents.

Tech device operational complexity

- Unfamiliar with technology devices, and complex navigation interfaces or multi-step operations may increase the difficulty of use.
- Small fonts and complex interactions can easily make users with reduced vision or hand-eye coordination feel powerless.

Family consideration and social participation

- Family members find it difficult to understand the user's location or condition in real time, especially in emergencies, and feel helpless.
- Avoid and reduce frequency to going out for fear of getting lost, and gradually reduce their interactions with the community and friends.

OPPORTUNITIES

- Provides **real-time AR navigation assistance**, reducing cognitive burden through concise and clear arrows, landmarks, and voice prompts.
- Introduces "**backtracking mode**" to help users return along the original route and reduce anxiety after getting lost.

- Provide **emotional comfort function** to relieve users' tension through voice assistant, such as "Don't worry, I'm here to help you".
- **Real-time environmental monitoring reminds** users to pay attention to dangers ahead, further ensuring safety.

- Develop a **minimalist interface**, use **large icons** and high-contrast design to improve usability.
- Introduce **voice command** functions to allow users to complete operations through simple voice interactions.

- Provide family linkage functions so that family members can view the user's location in real time and receive **safety reminders**.
- **Automatically notify** family members or local rescue services in emergencies.
- Introduce **schedule planning** and reminder functions to help users **attend activities** or meet friends on time.
- Provide recommendations and **navigation for nearby community activities** to encourage users to maintain social activities.