

By Team SilverMindBot

Problem

To Glen, the sad thing about his uncle's death and those who have died at home alone is that "there was no one there with them", he said in a previous CNA interview.

But these people are not necessarily living alone — they could be living with their family, yet feel lonely.

She pointed out that the sense of community in Singapore has declined because of the living environment and urban design.

The response during the trial in Yuhua was good, but over time, the number of subscribers has dropped until a "very small group" is left now, he added. "The elderly sometimes said they didn't want to be monitored."

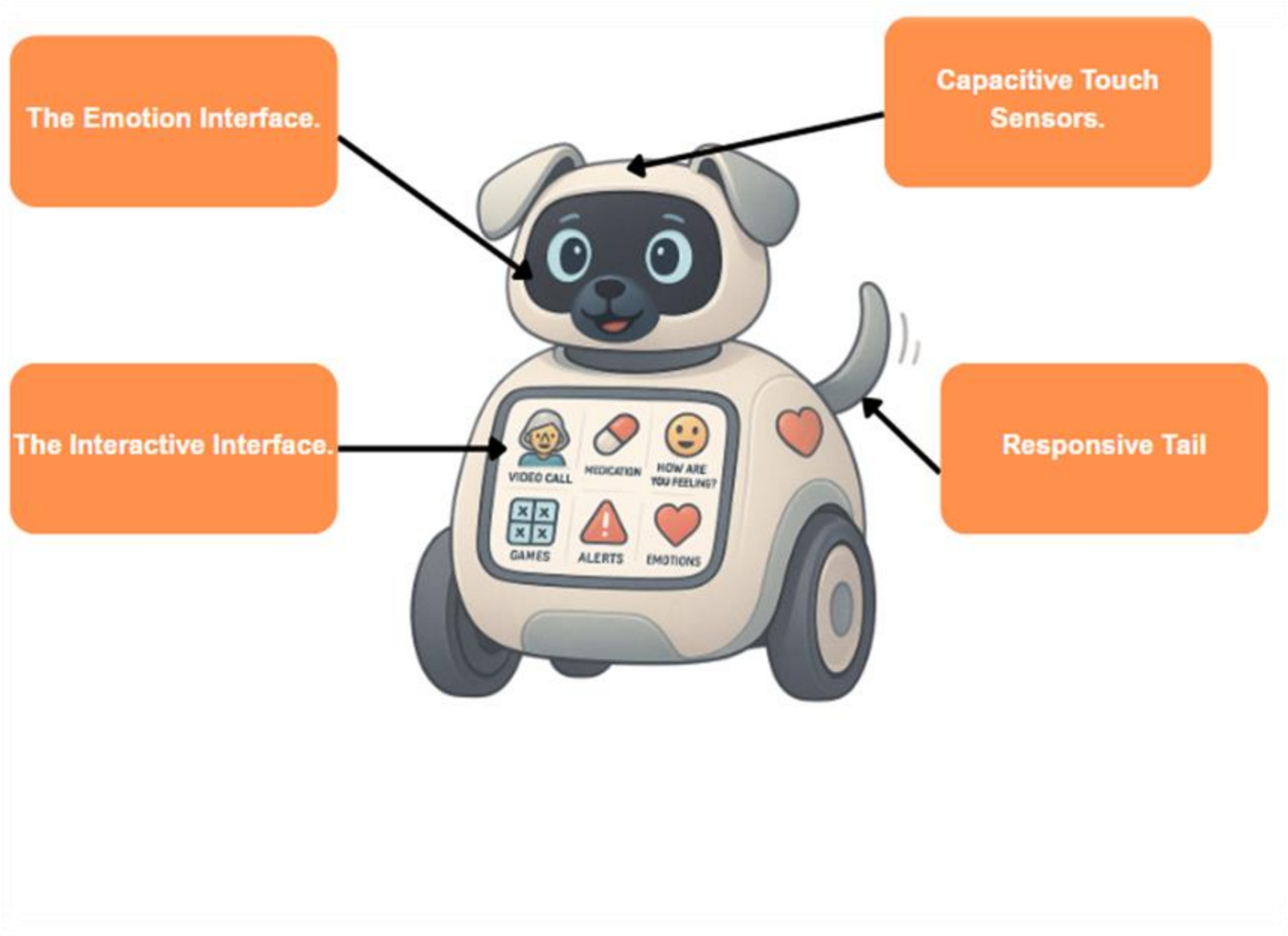
She thinks such a set-up is a model for the future — though it does not come cheap, costing up to S\$2,000 a month.

- Lack of
Companionship.
- A Need for
a Personal and
Affordable Solution.

Problem Statement

Develop an affordable personal companion for the elderly to alleviate loneliness and provide companionship.

Features



Validation: Stakeholders



Users

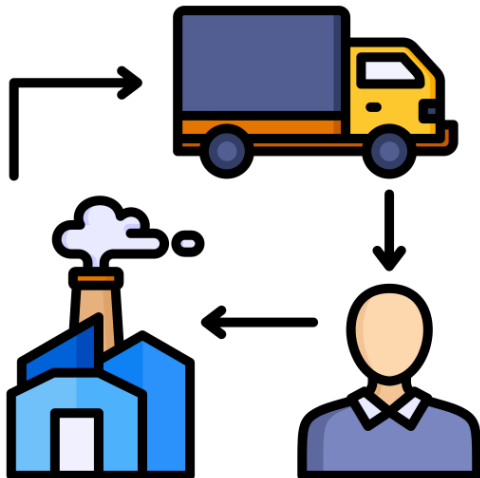
3 elderly groups:

- 60-70
- 70-80
- Above 80



Domain Experts

- Doctors
- Caregivers
- In-Domain Researchers



Supply Chain Personnel

Staffs at companies:

- SilverActivities
- Nuwa Robotics
- Companion Pets



Regulatory Officers

Political staffs:

- Smart Nation
- Ministry of Health

Validation Methodology

1

Key Assumption:

Elders are disconnected from their friends, family, and provided supports.

2

Pretotype:

Re-label: Build a simulation using Story boards to demonstrate the function of our Robotic Dog.

3

Market Engagement Hypothesis:

At least 70% of users are alleviated loneliness with our Robotics Dog.

4

Test the Pretotype

Hosting workshops using Robots for elders at senior centers

5

Learn, Refine, Hypo-Zoom

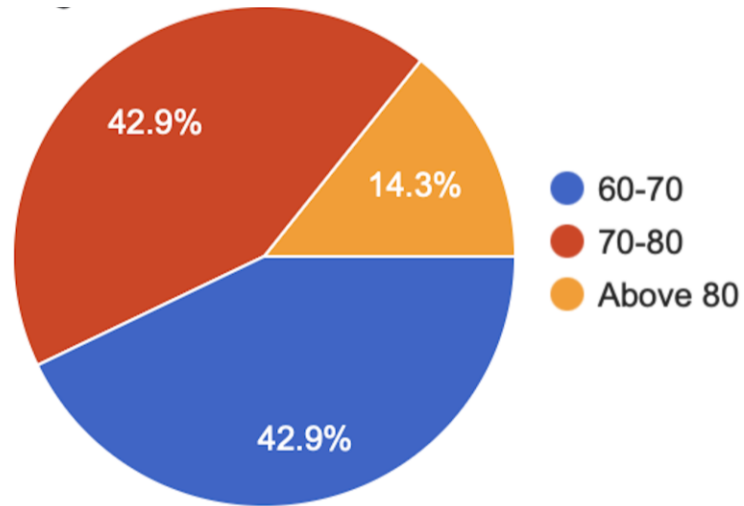
Analyse gaps -> Refine assumption -> Designing new function for our products

Data Collection Methods

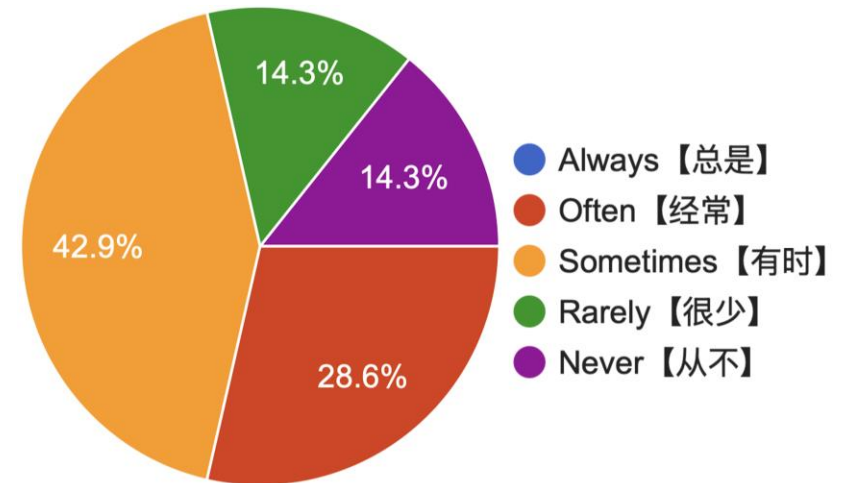
- Contacted stakeholders for interviews:
 - Domain experts:
 - ✓ In-Domain researchers at SUTD
 - ✓ Doctors at Changi General Hospital
 - ✓ Senior centers: St Luke Eldercare, Orange Valley, etc.
 - Supply Chain Personnel:
 - ✓ SilverActivities
- Surveys:
 - Number of questions: 24 questions
 - Number of participants: 7 elders
 - Platforms: Email and Google Form

Market Validation: Elderly Disconnection

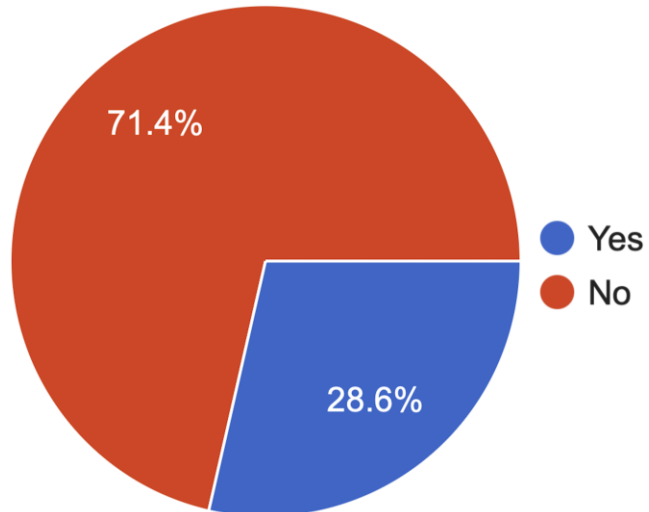
Age



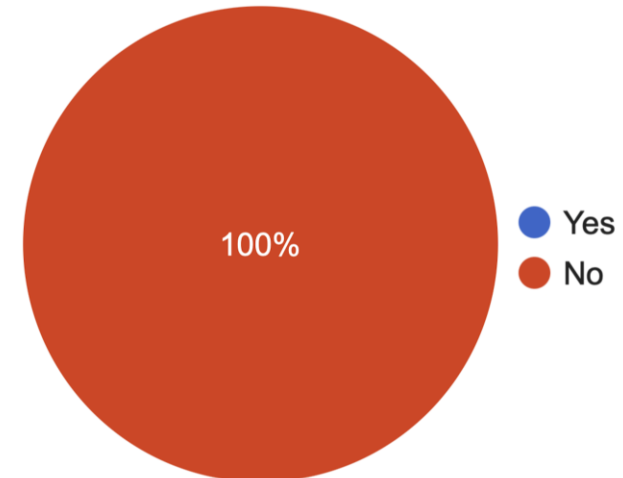
How often do you feel lonely?



Are you aware of Home Nursing Foundation's services?

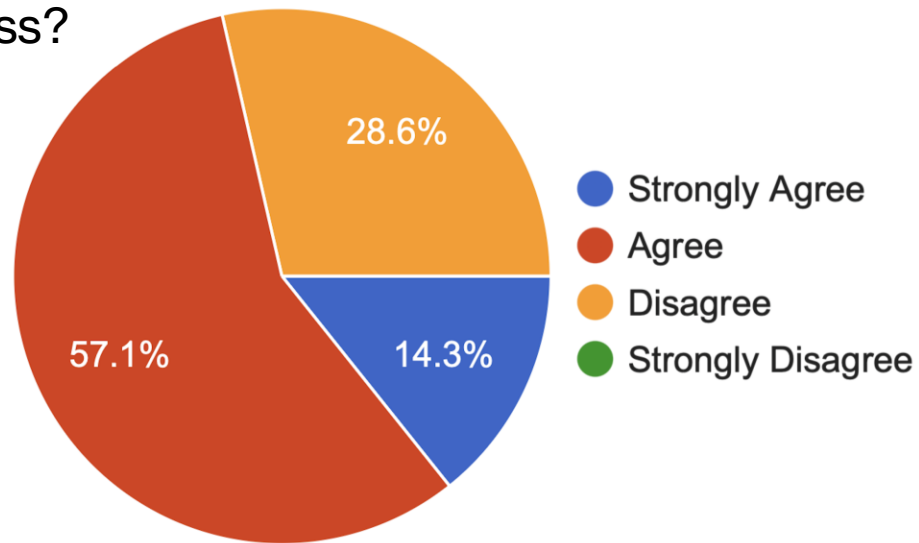


Have you used any of the services before?

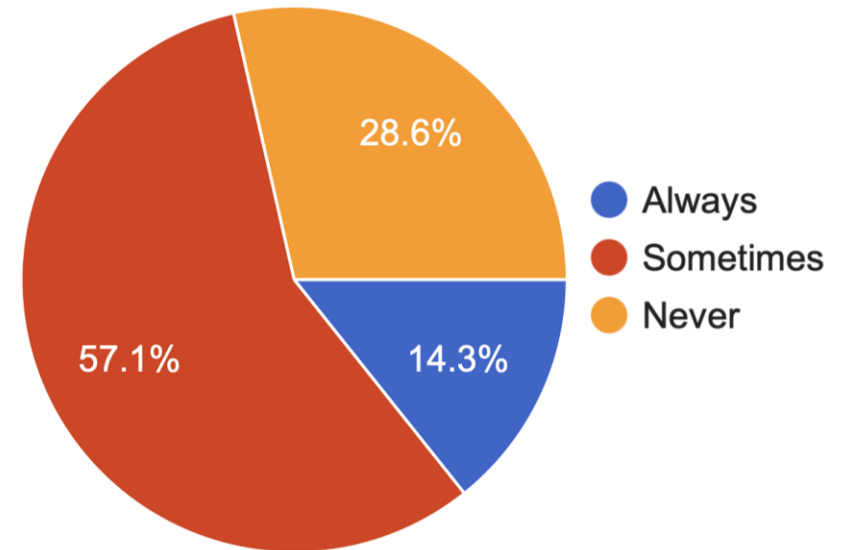


Product Validation: Product Effectiveness

Will this product provide companionship and ease loneliness?



How often would you use this product?



Validation Canvas

	Riskest Assumption	Customer Segment	Customer Need	Prototype to Validate with	Minimal Success Criterion	Result
Start	Elders won't purchase a robotic companion.	Elders (60+)	Loneliness relief	A simulation using Story board	≥ 30 pre-orders in 14 days	Make business running
Pivot 1	Price is too high for living-alone elders.	Elders living alone	Affordable social link	Doing interview about price	≥ 50% interviewees ready to pay	Reducing the price
Pivot 2	Users abandon the robot because poor functions.	Elders with disabilities	Practical help & emotional support	Invite trial users	≥ 10 min / day at 70% of participated users	Brainstorm richer modalities
Pivot 3	Device provides negligible benefit for elders.	Elders with mild mobility / vision issues	Interact in mother-tongue & culturally familiar way	Invite doctors, regulatory officer for examinations	≥ 2 clinical proofs	Improving the current functions
Pivot 4	Lack of native language adoption.	Non-English-speaking elders	Interact in mother-tongue & culturally familiar way	Using AI validation tools	≥ 80 % of voice commands correctly	Integrate multi-language NLU

Improved Robotic Pet Companion(RPC)

More Realistic Appearance.

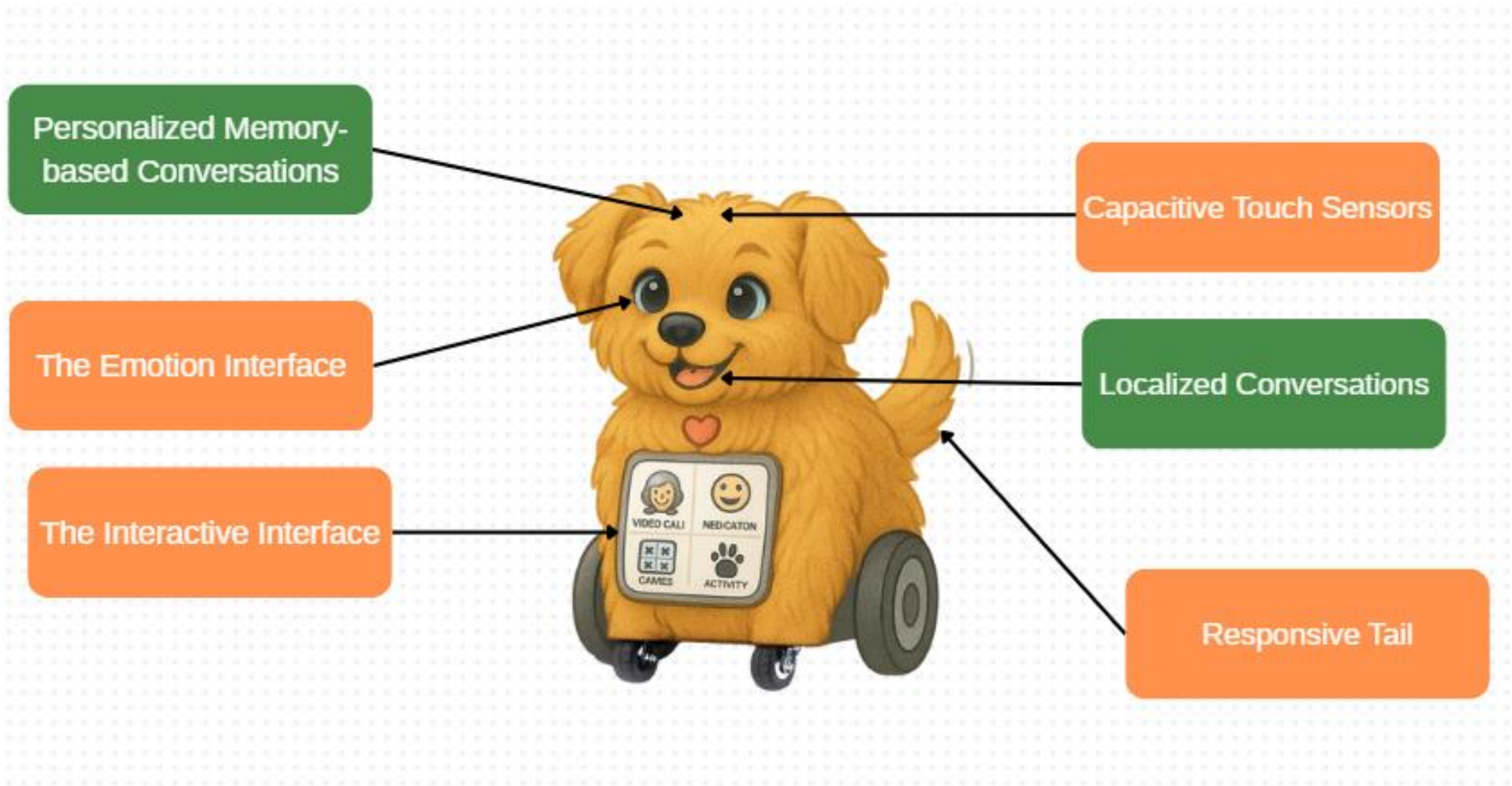
Personalized Conversations.

Encourages Social Interaction.

Localized.



ENHANCED FEATURES



IMPROVED PRETOTYPE



- The Re-label: Put a different label on an existing product.
- Re-labeled a dog-toy and taken inspiration from Companion pet robots to enhance our pretotype.

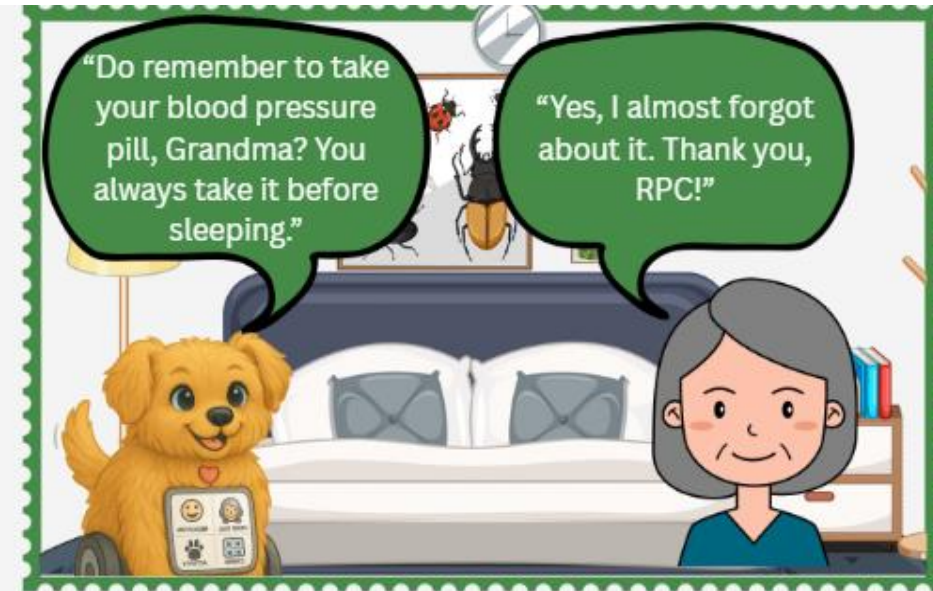
STORYBOARD 1: Enhanced Social Interaction



STORYBOARD 2: Localized Conversations



Storyboard 3: Personalized Memory-based Conversations



Video



THANK YOU

