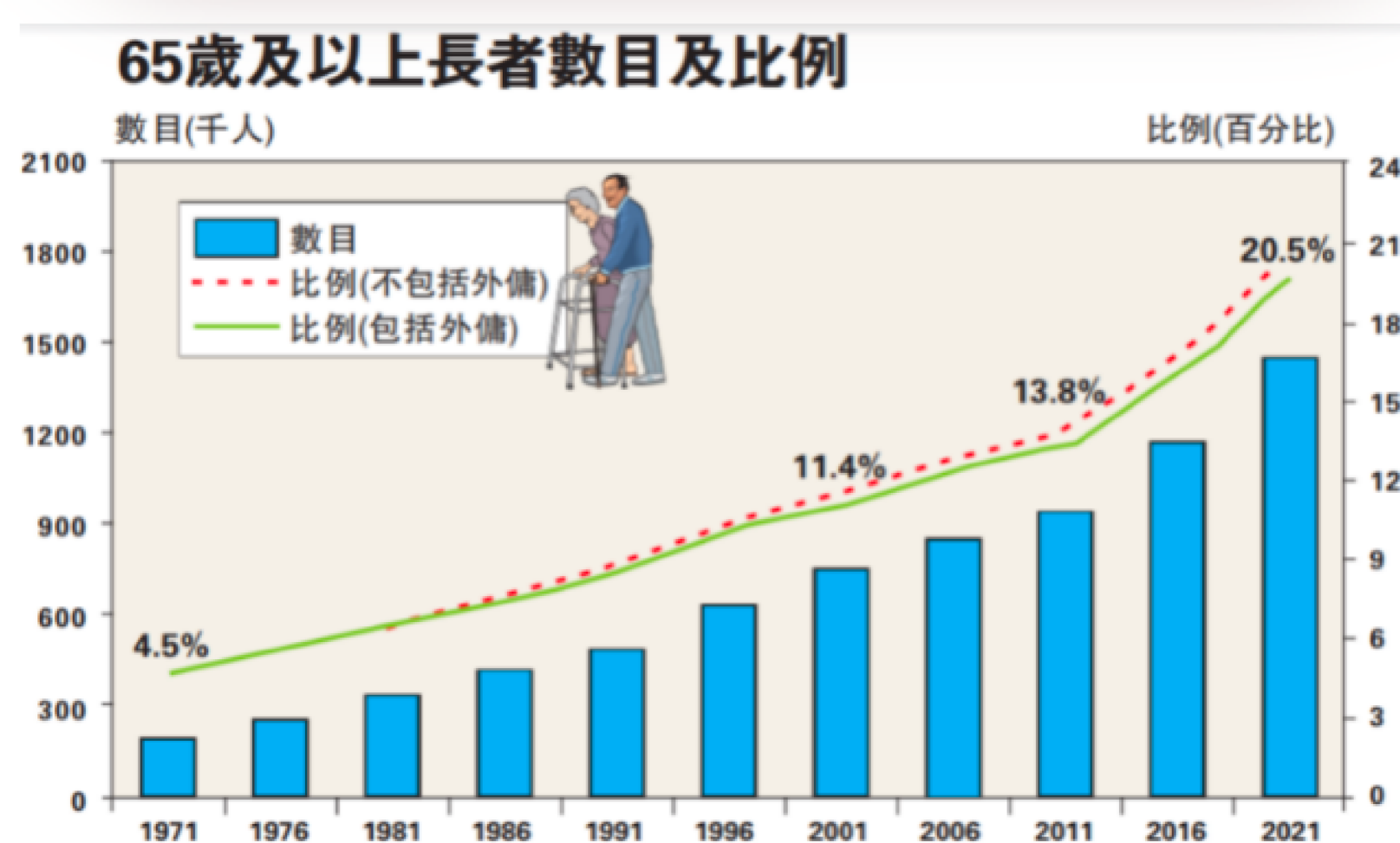


# Smart Home Monitoring Systems for Elderly Care

DING Jinfeng, CDE

Supervisor: Prof. SUNG Albert C W

## Background



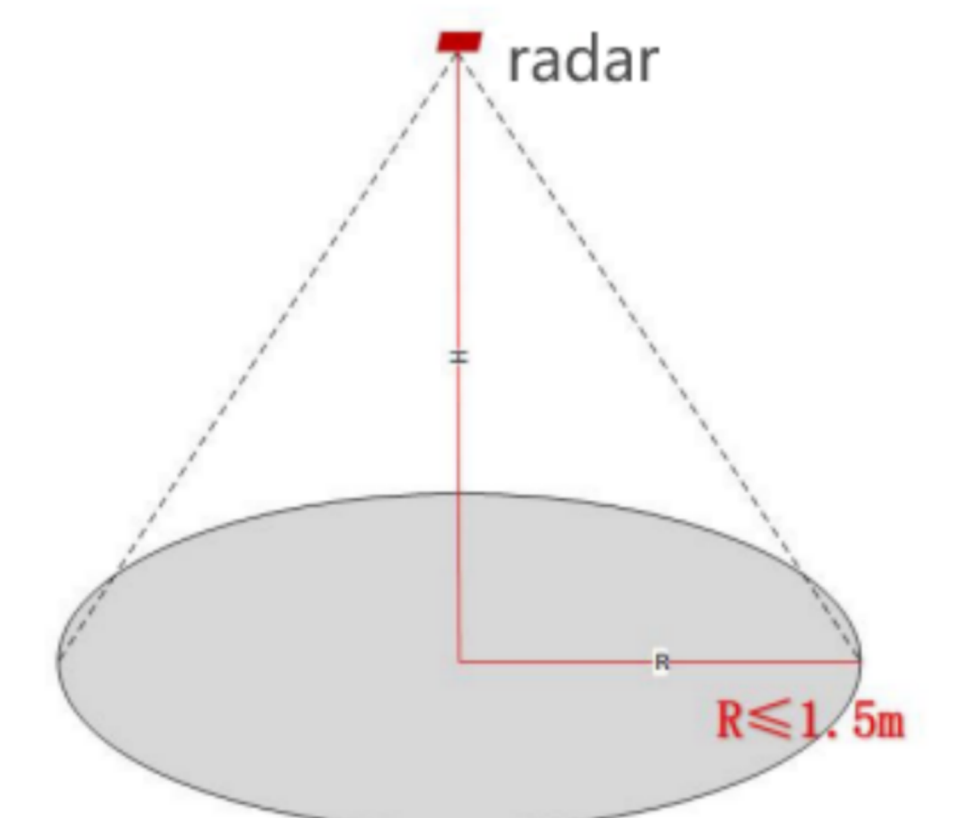
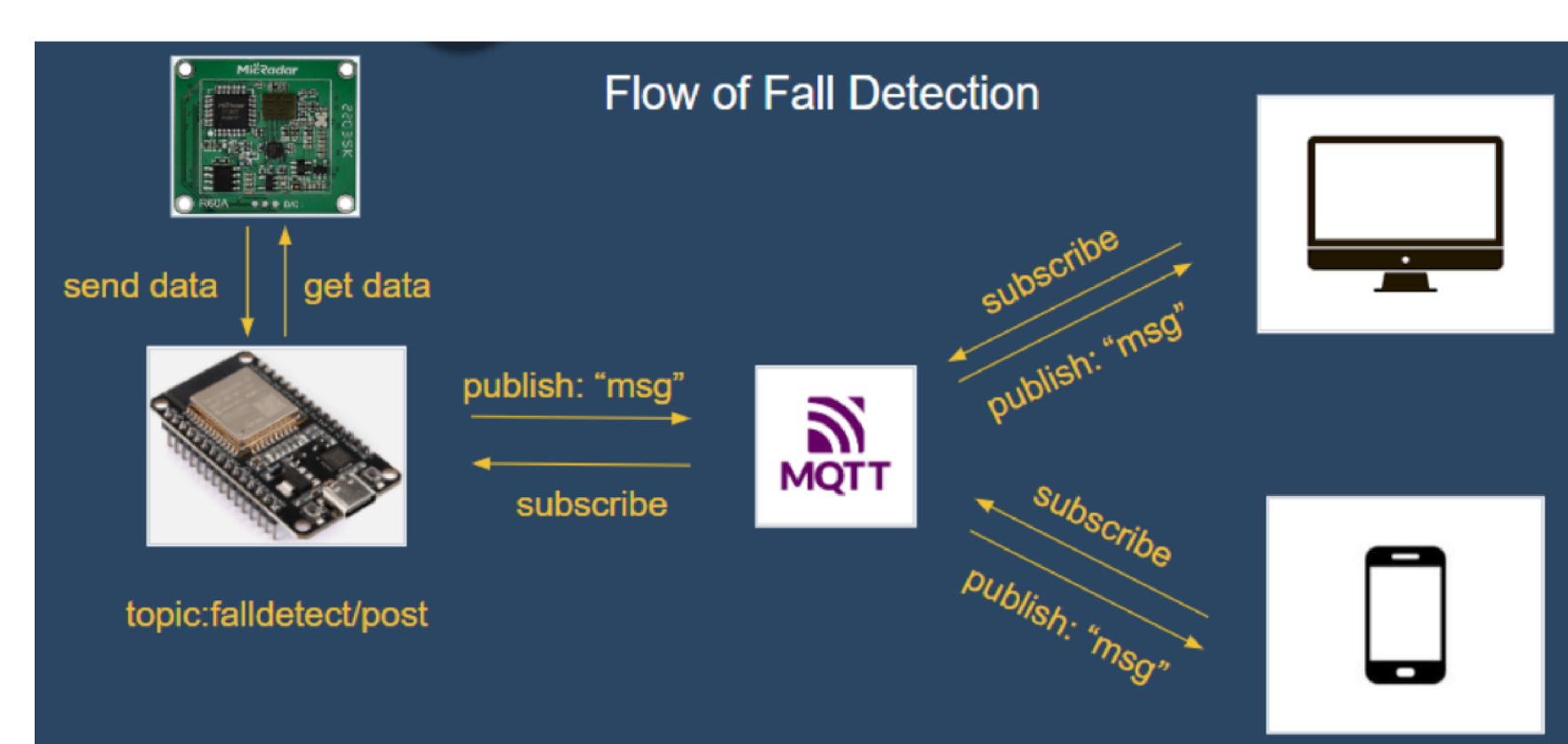
- Increased population ageing
- Elderly people living alone at home
- Accidents resulting in injury or even death
- Falls are the second leading cause of death
- Mainstream fall detection has some drawbacks

## Methodology

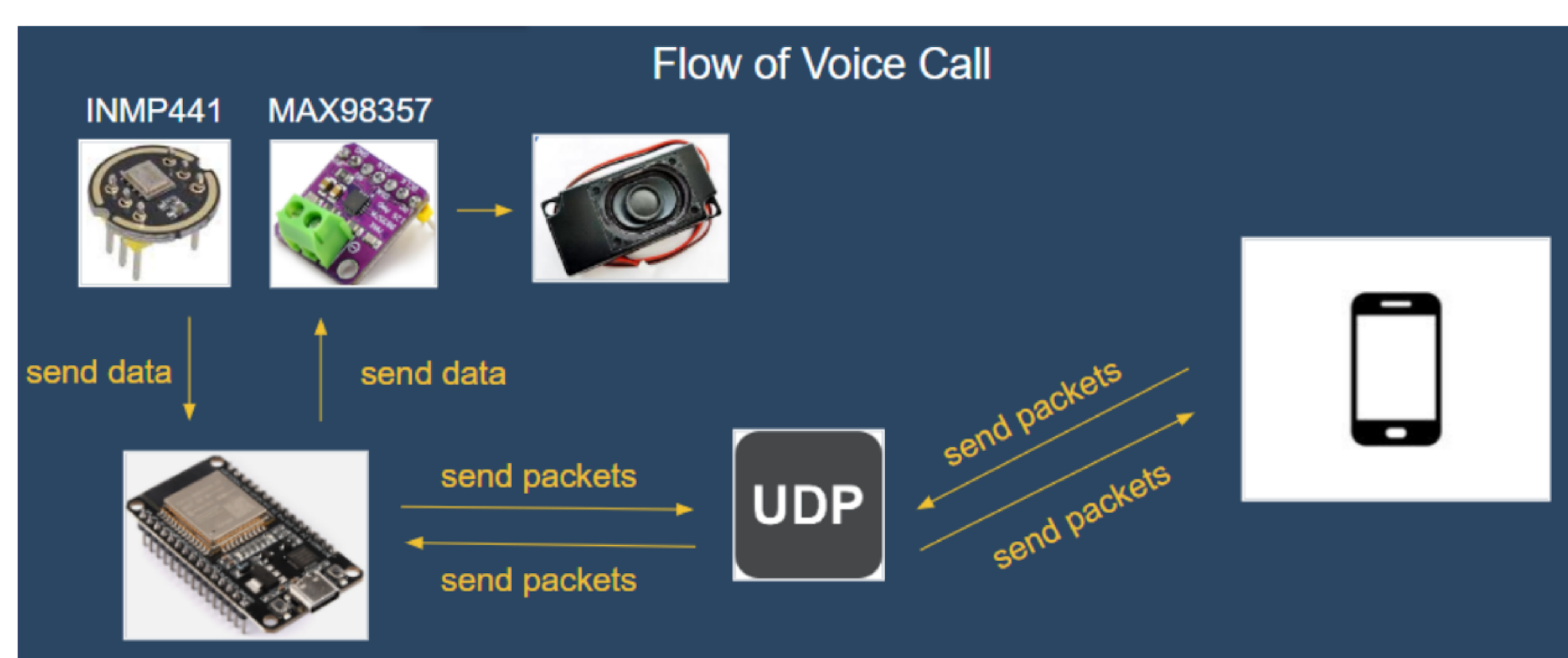
Smart Home Monitoring System

1. Fall Detection
2. Voice Call
3. Data Transmission Server
4. Mobile Application

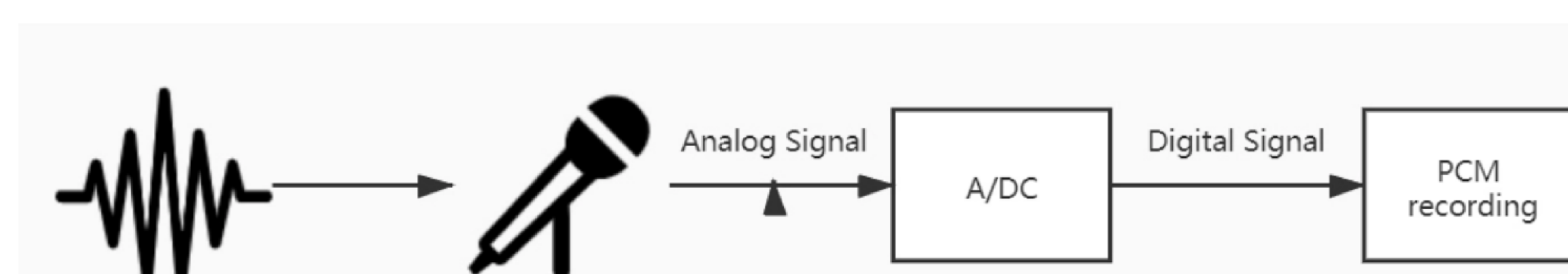
### Fall Detection



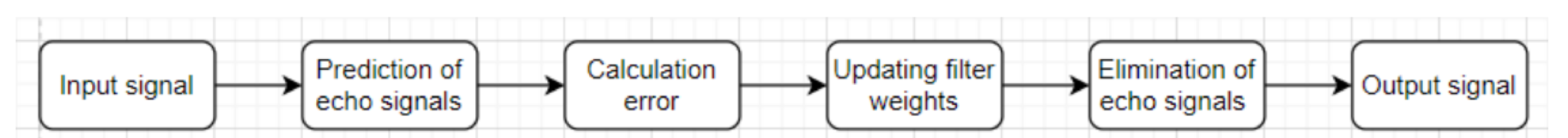
### Voice Call



### Sound Processing

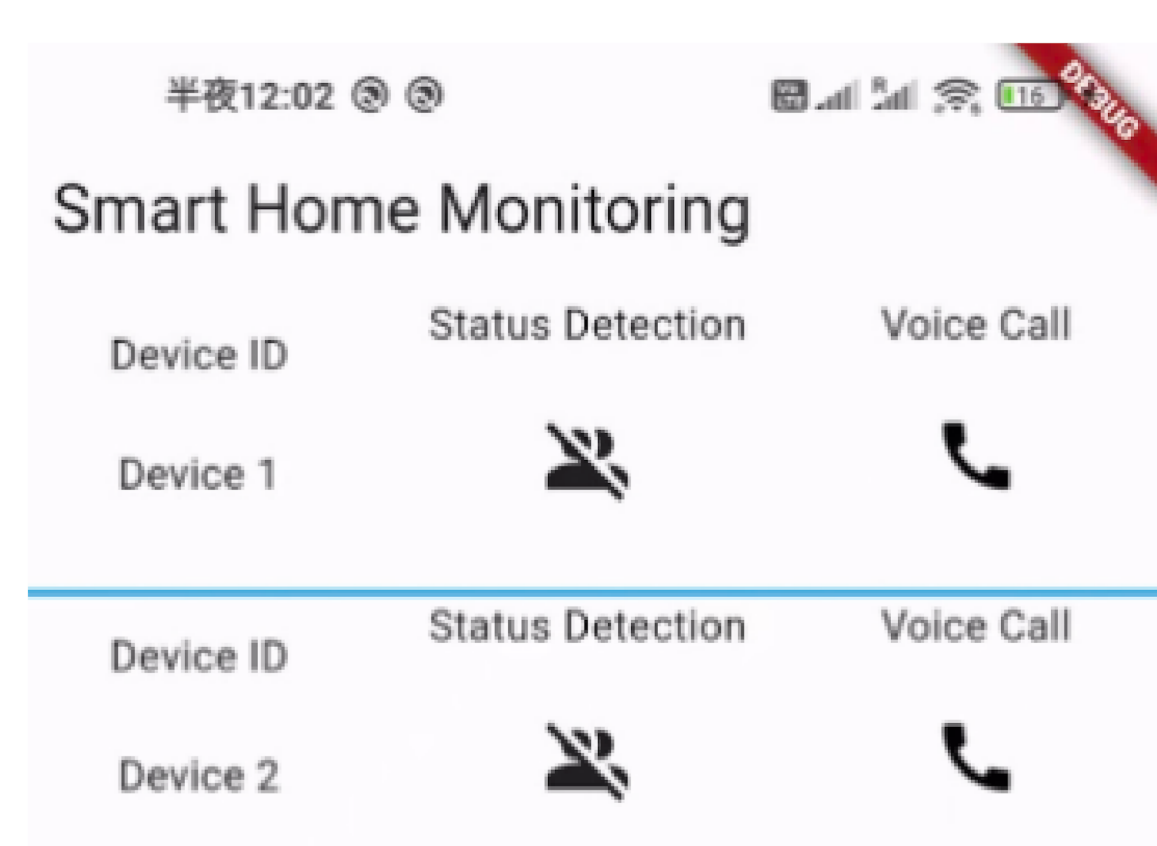


### Echo Cancellation

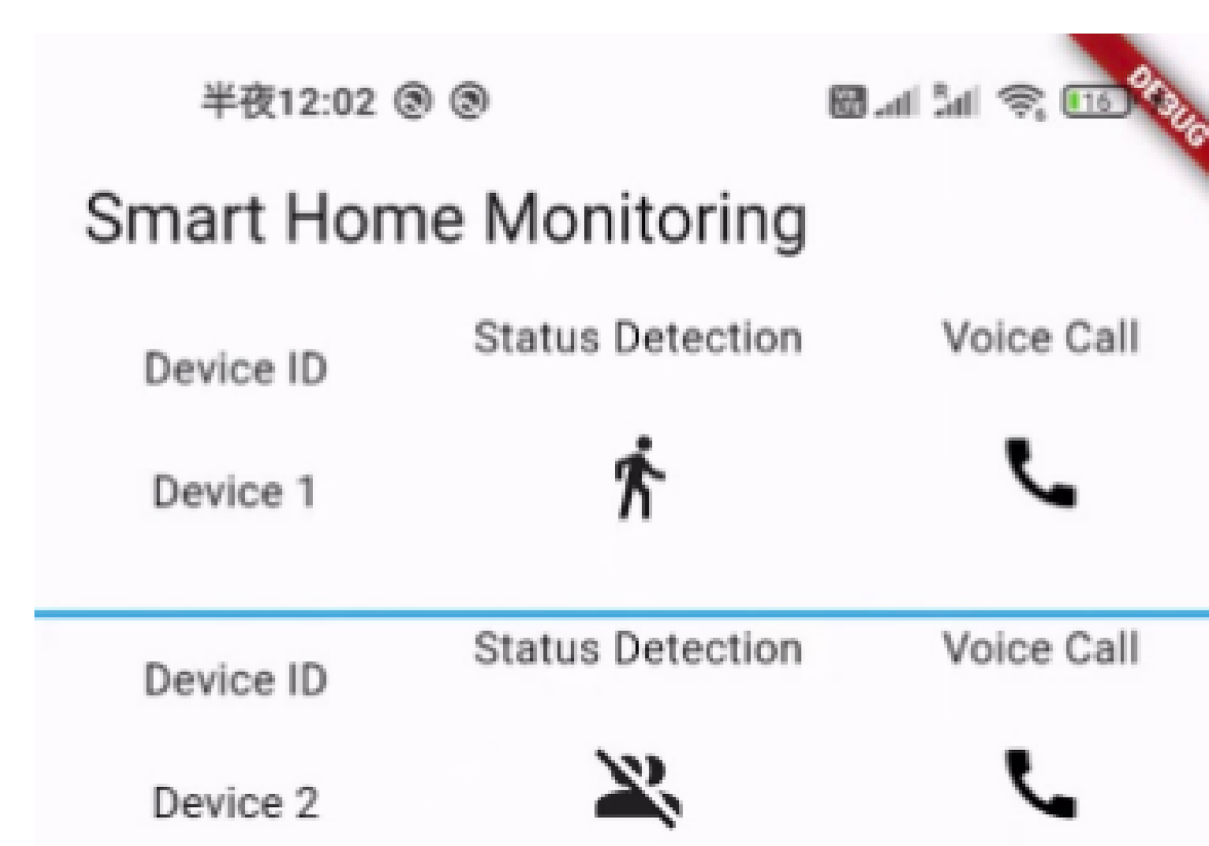


## Application

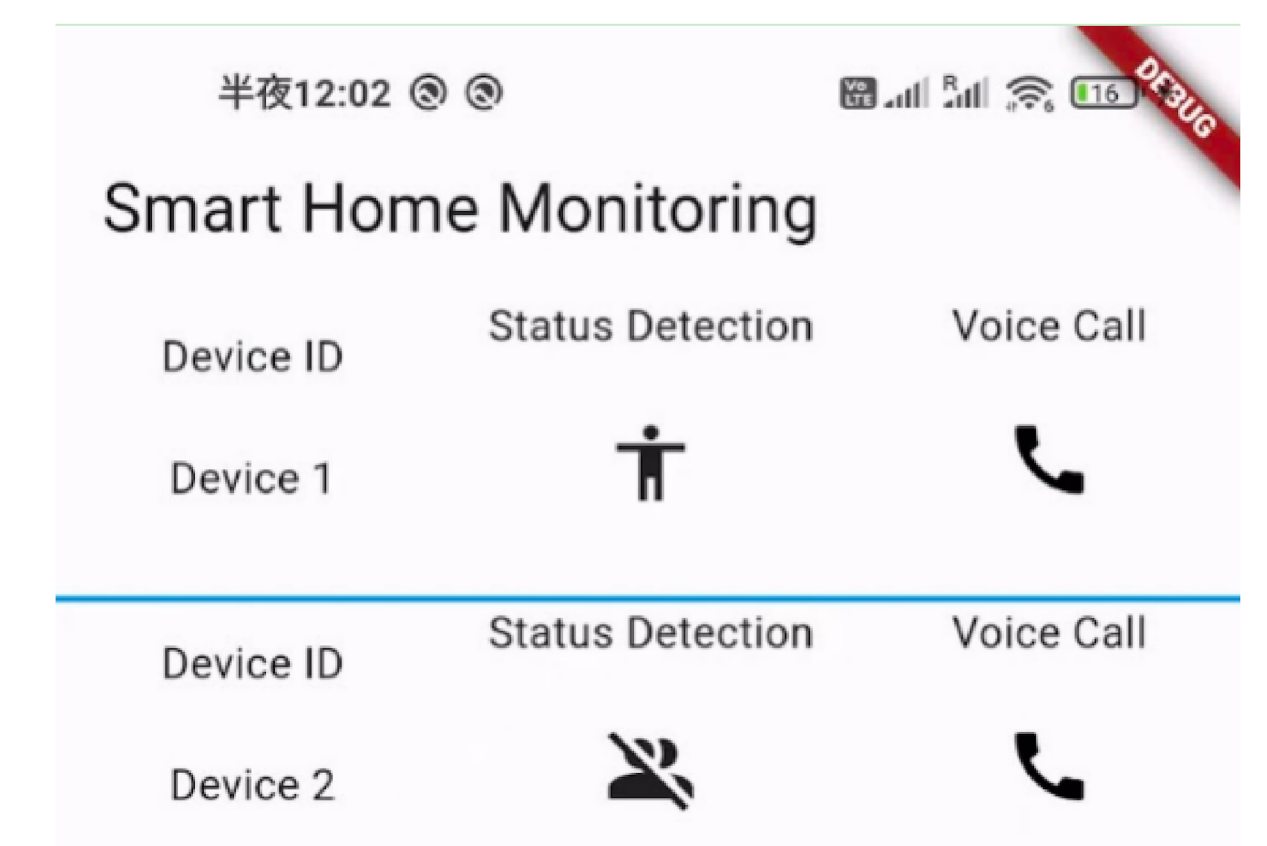
### Case 1



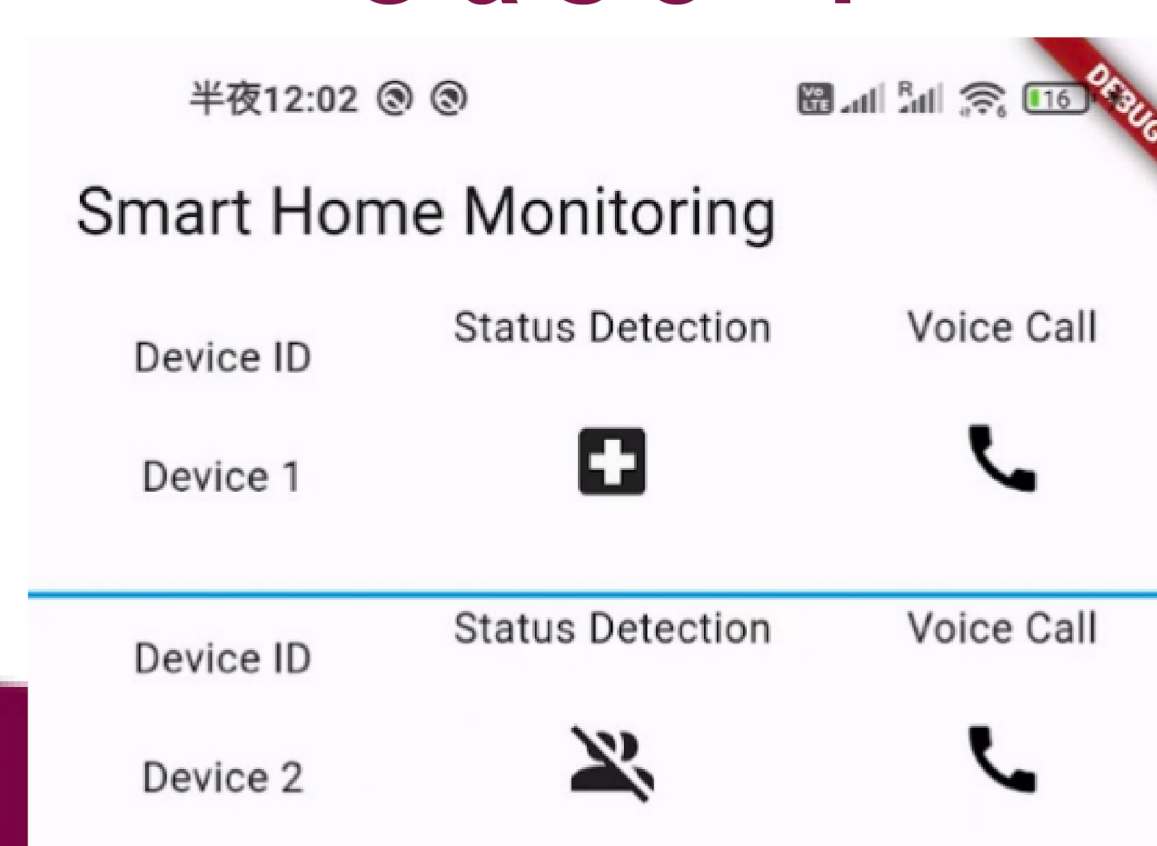
### Case 2



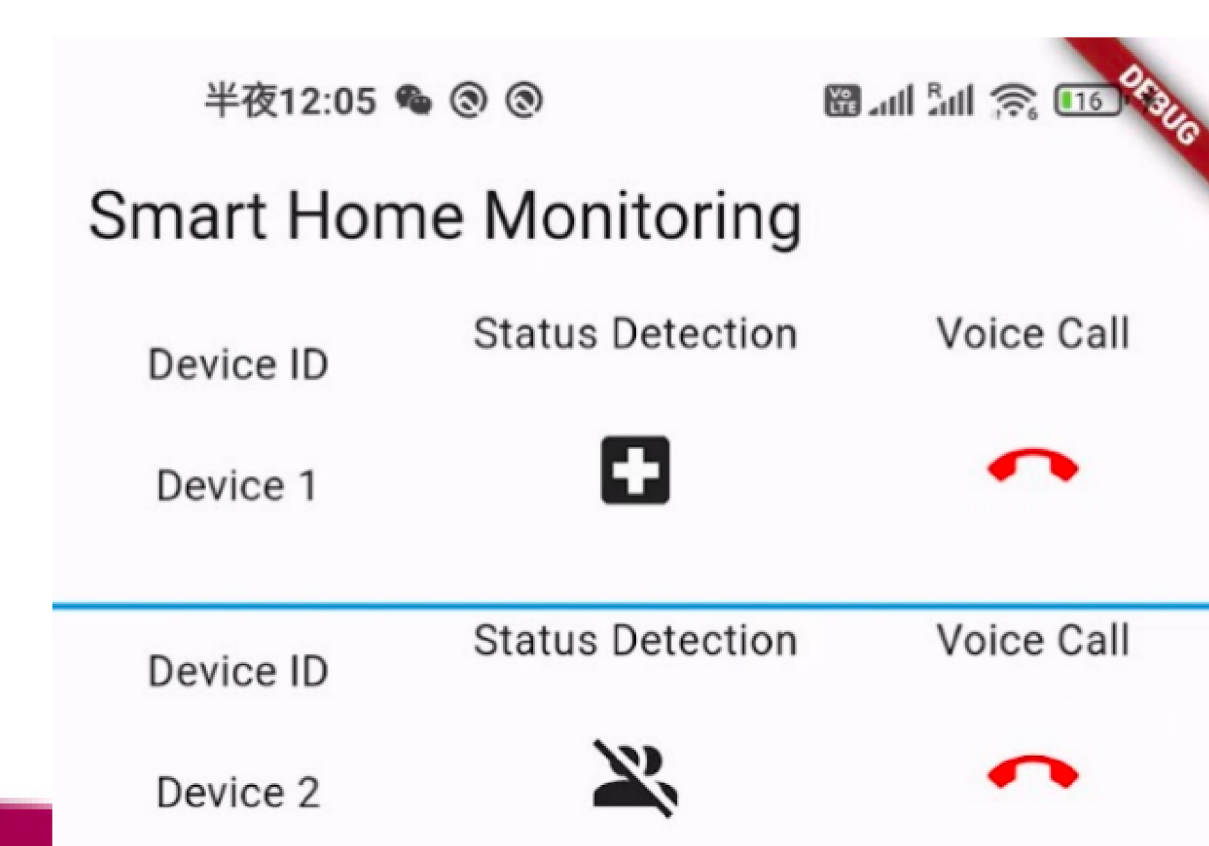
### Case 3



### Case 4



### Case 5



### Case 6

