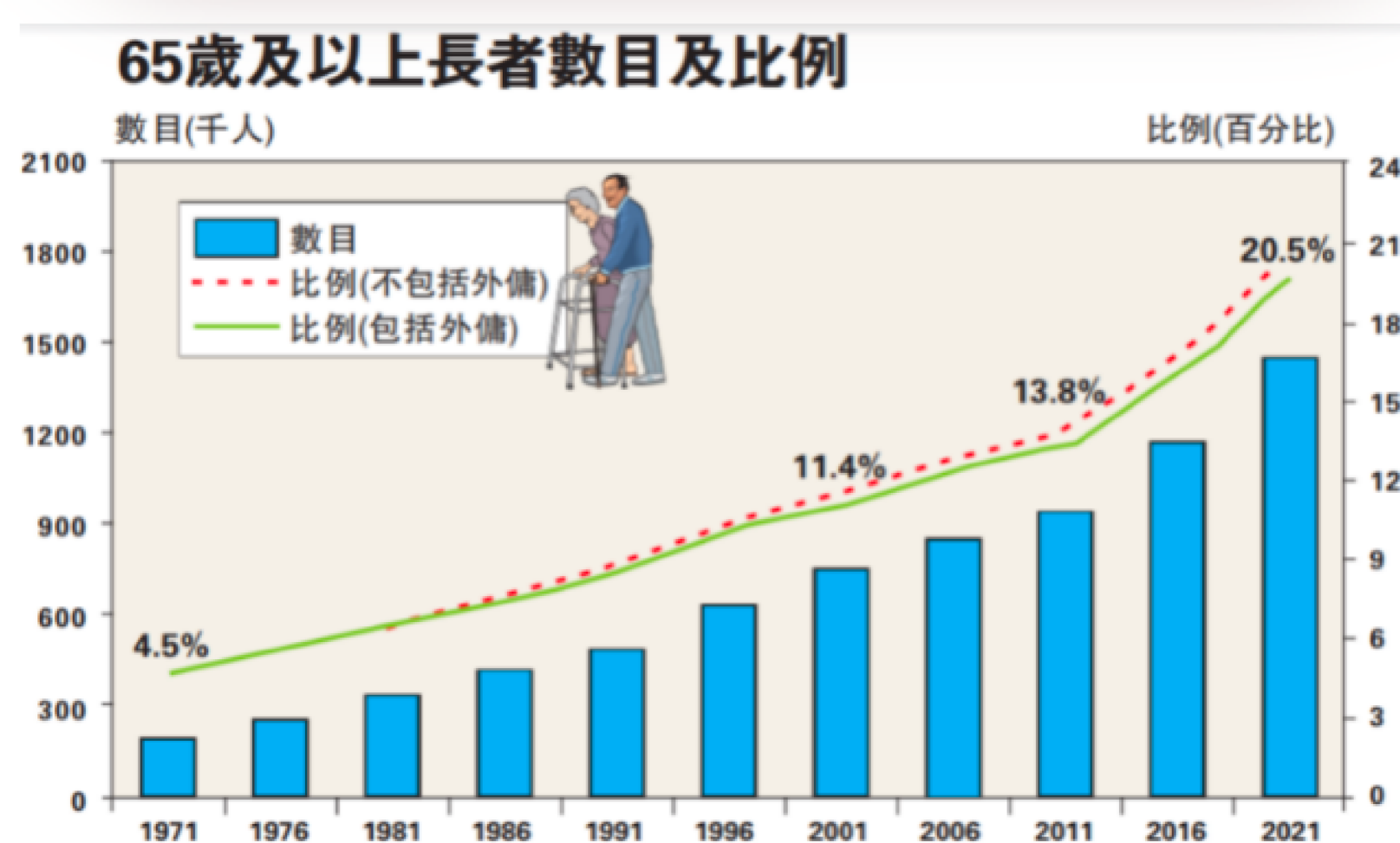


Smart Home Monitoring Systems for Elderly Care

DING Jinfeng, CDE

Supervisor: Prof. SUNG Albert C W

Background



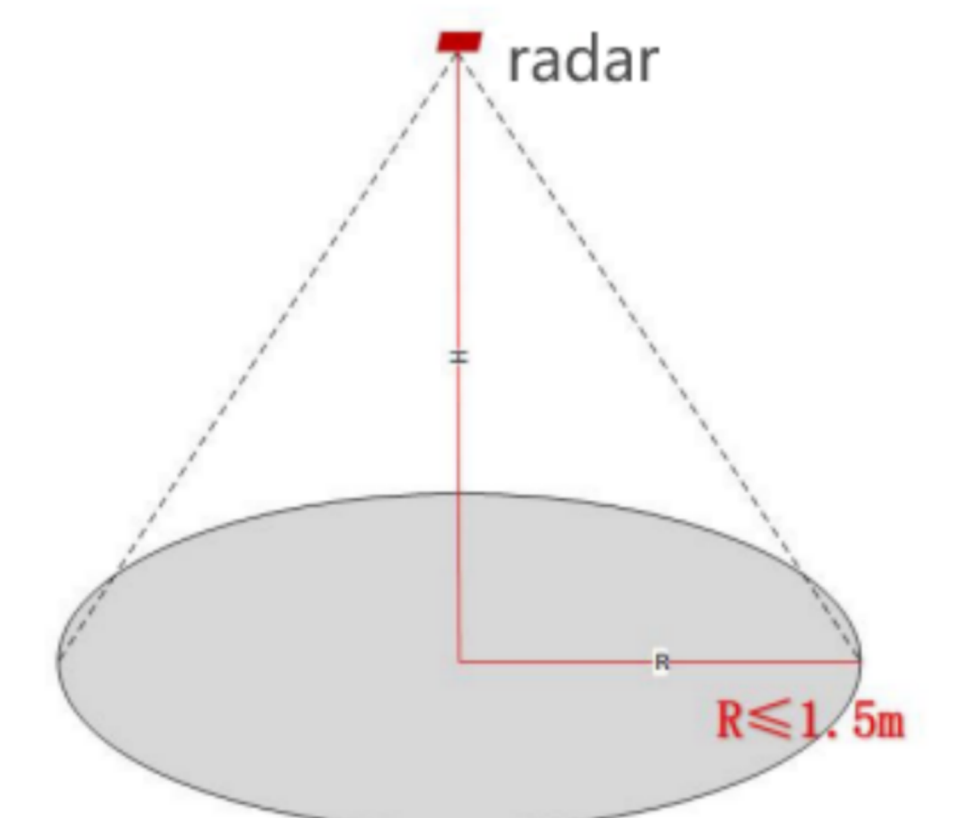
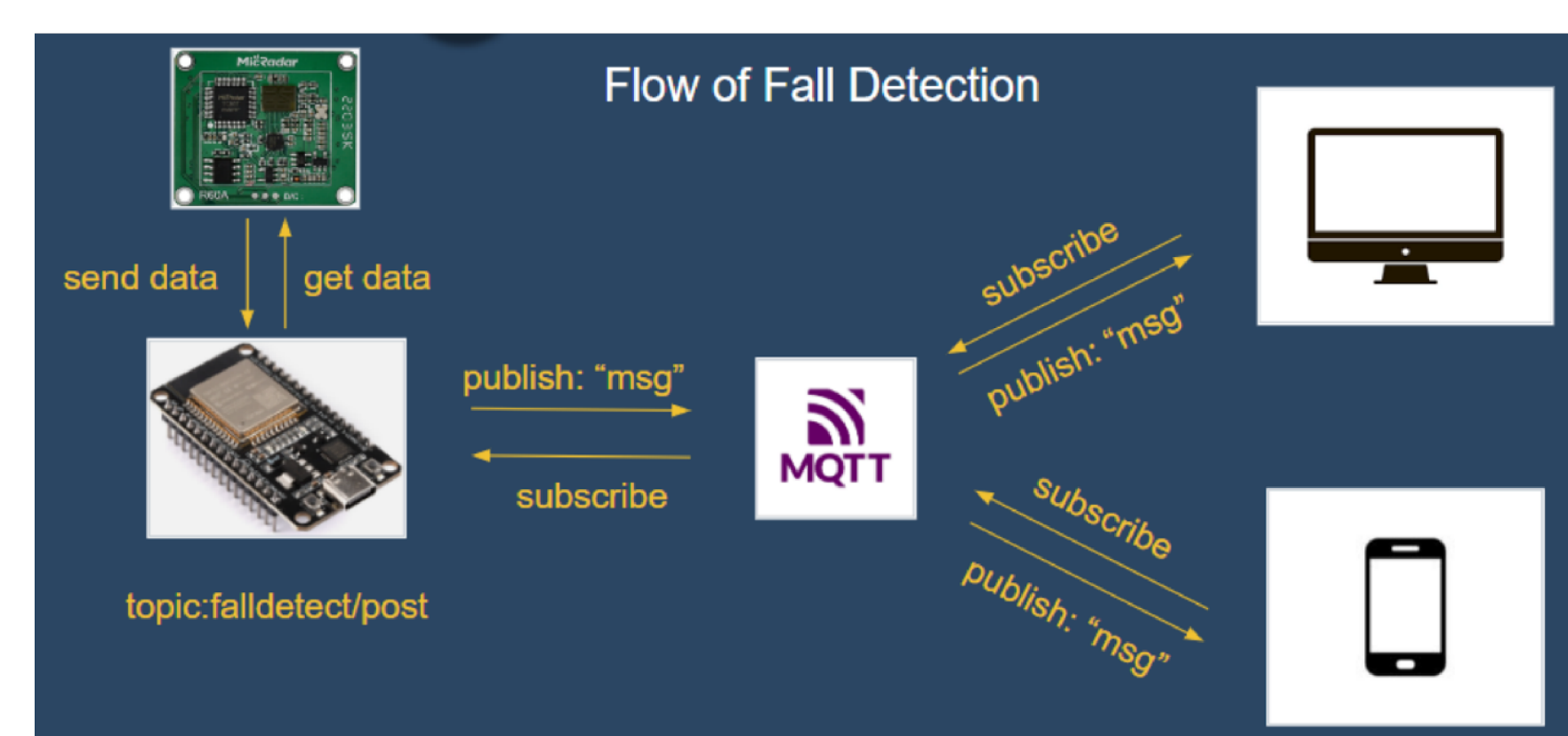
- Increased population ageing
- Elderly people living alone at home
- Accidents resulting in injury or even death
- Falls are the second leading cause of death
- Mainstream fall detection has some drawbacks

Methodology

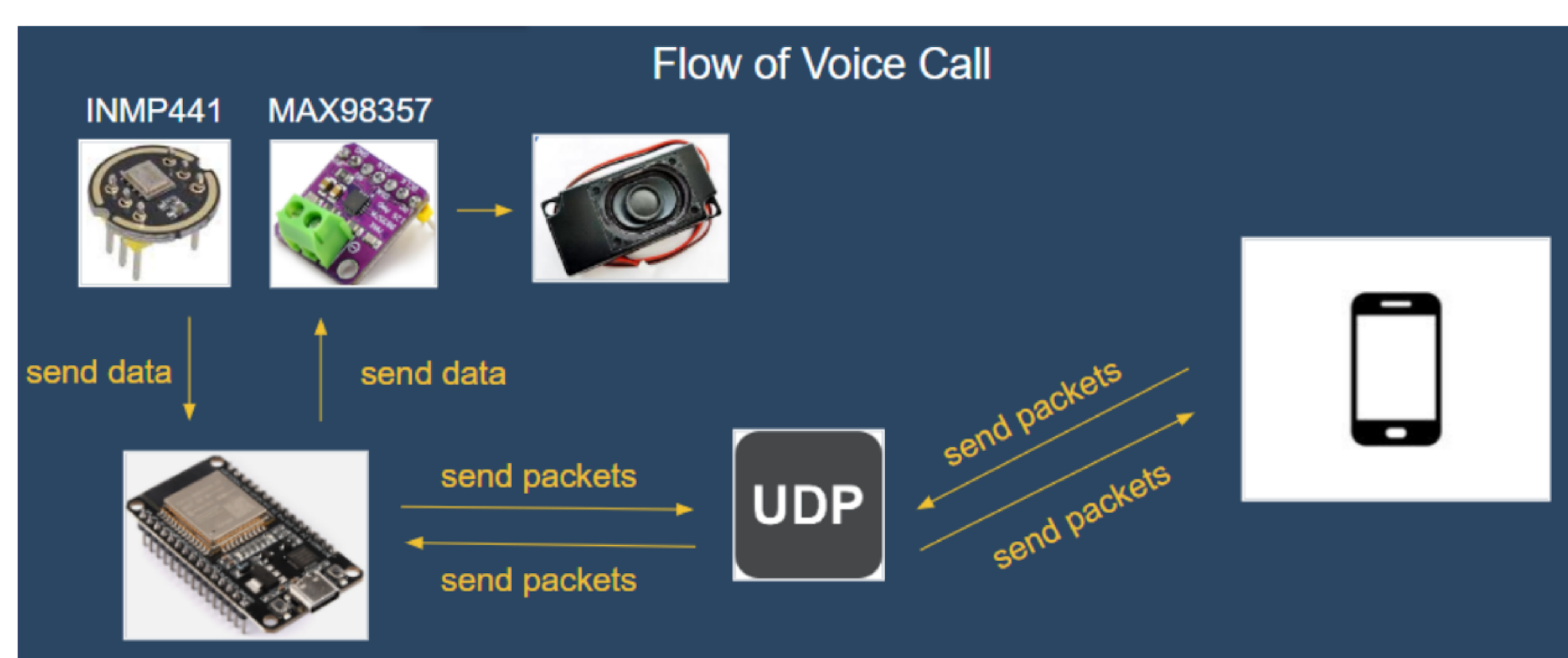
Smart Home Monitoring System

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

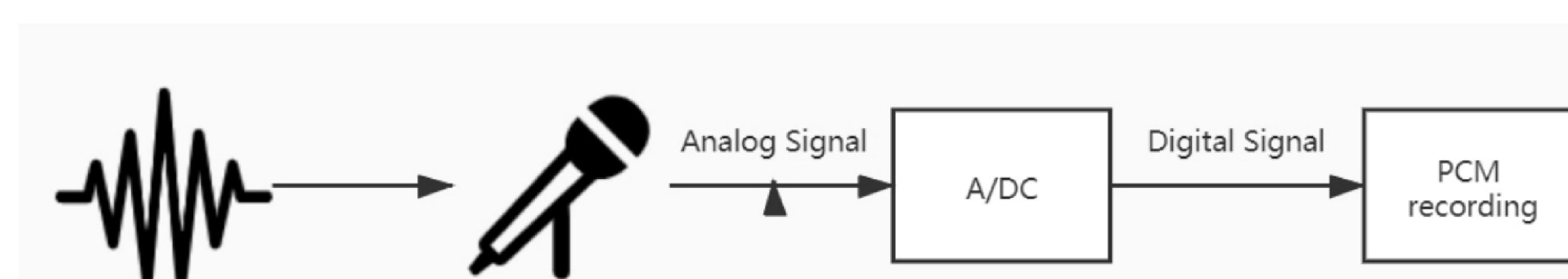
Fall Detection



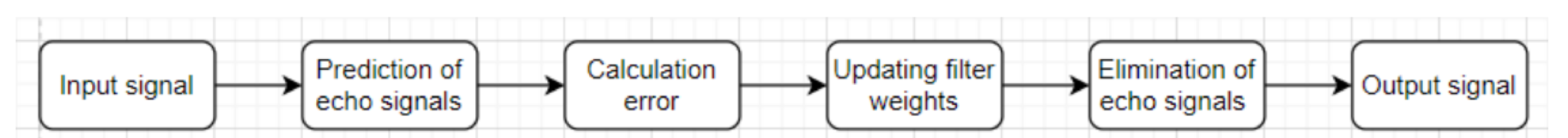
Voice Call



Sound Processing

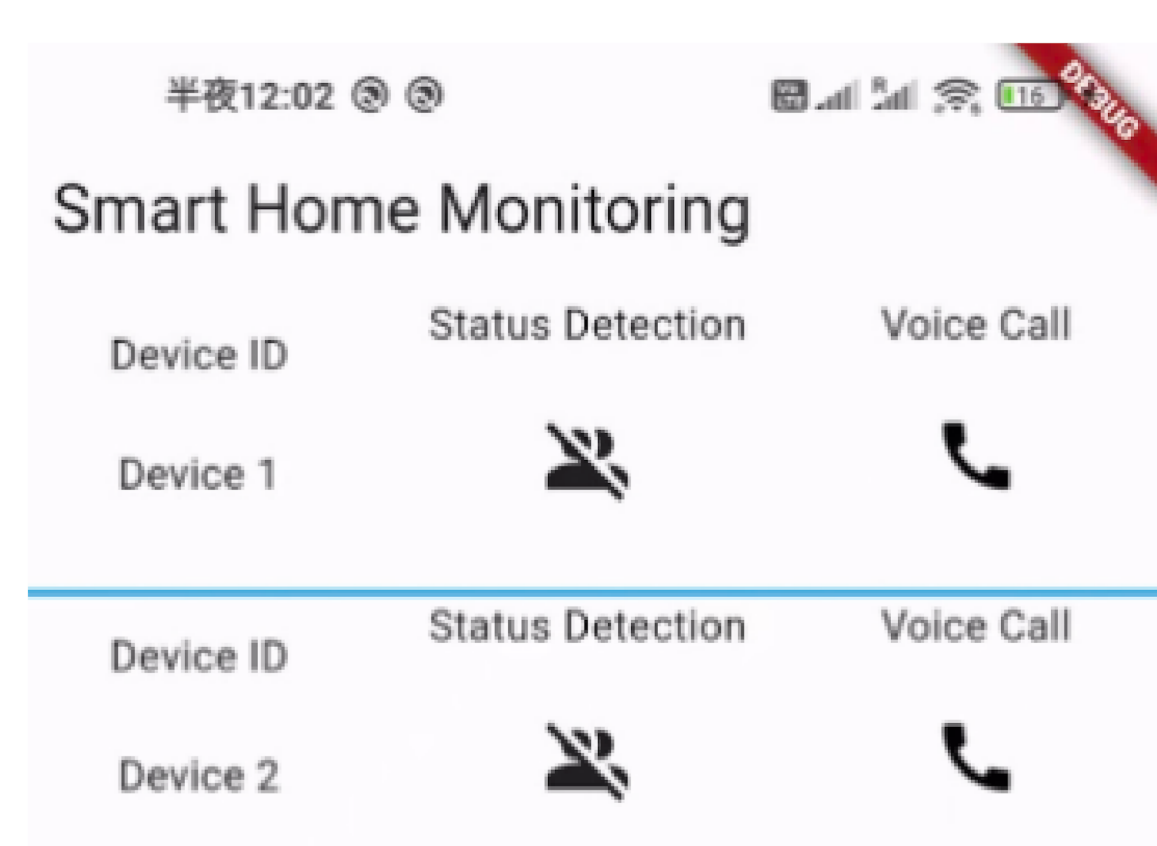


Echo Cancellation

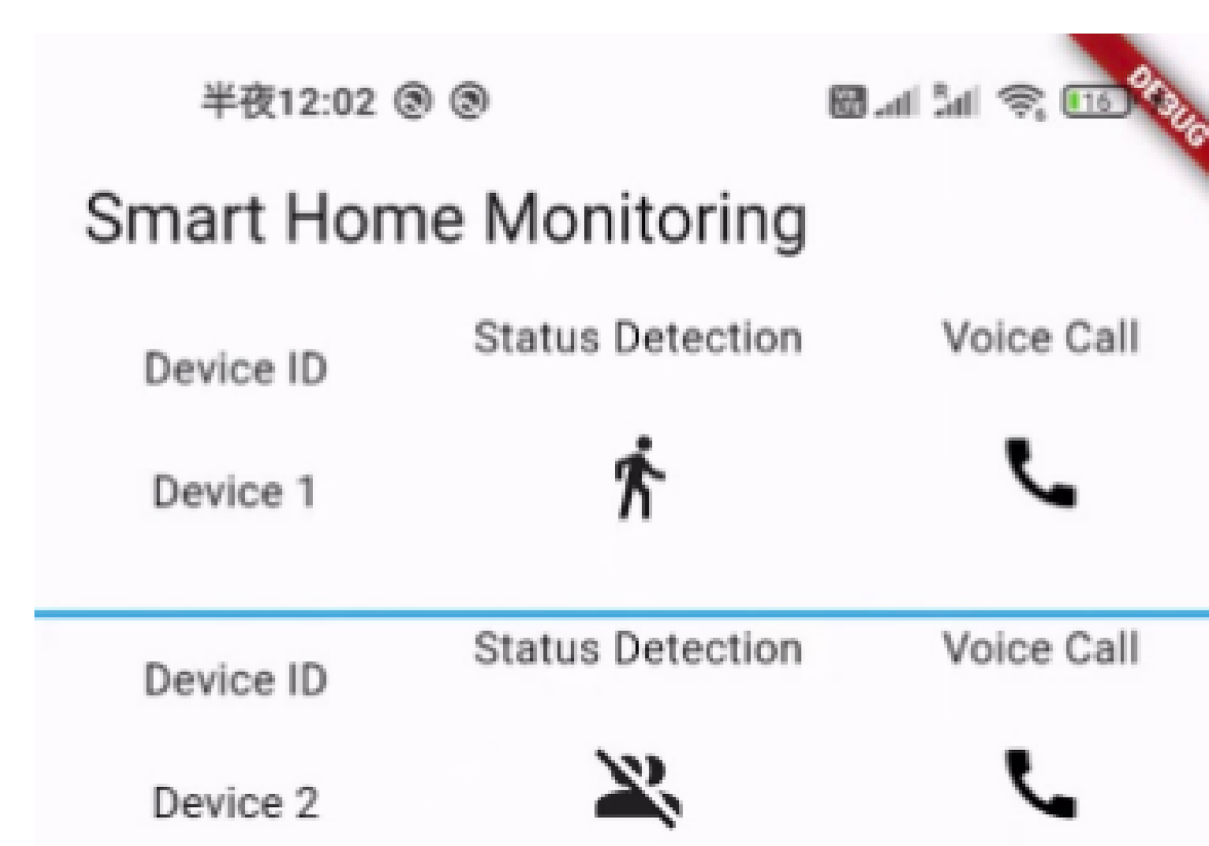


Application

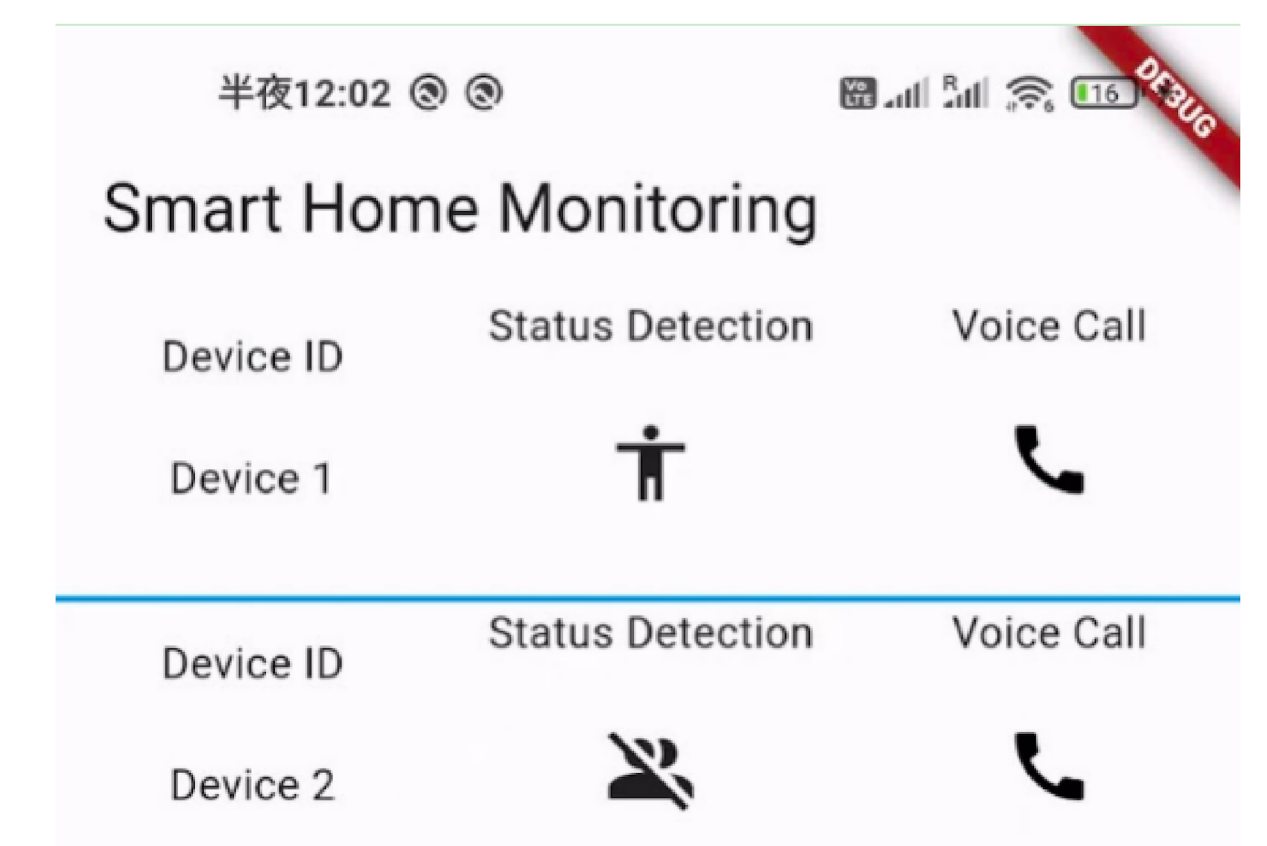
Case 1



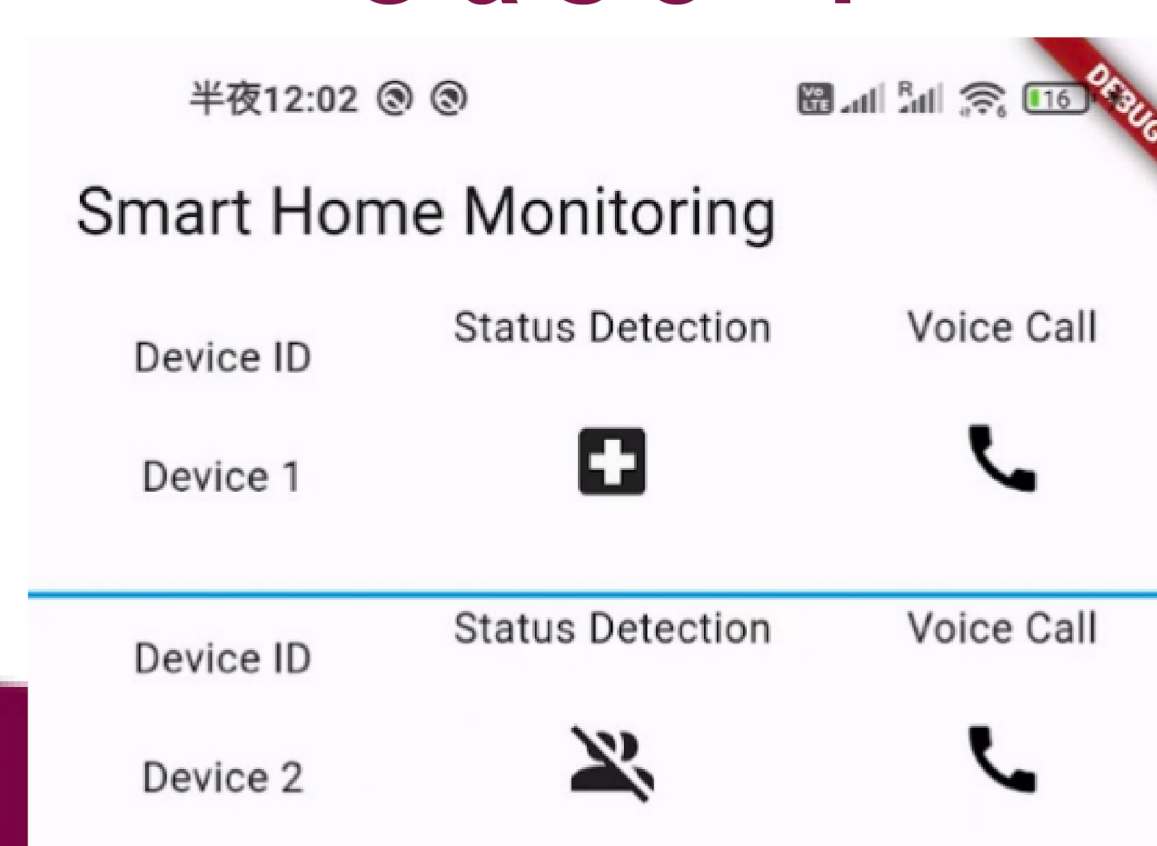
Case 2



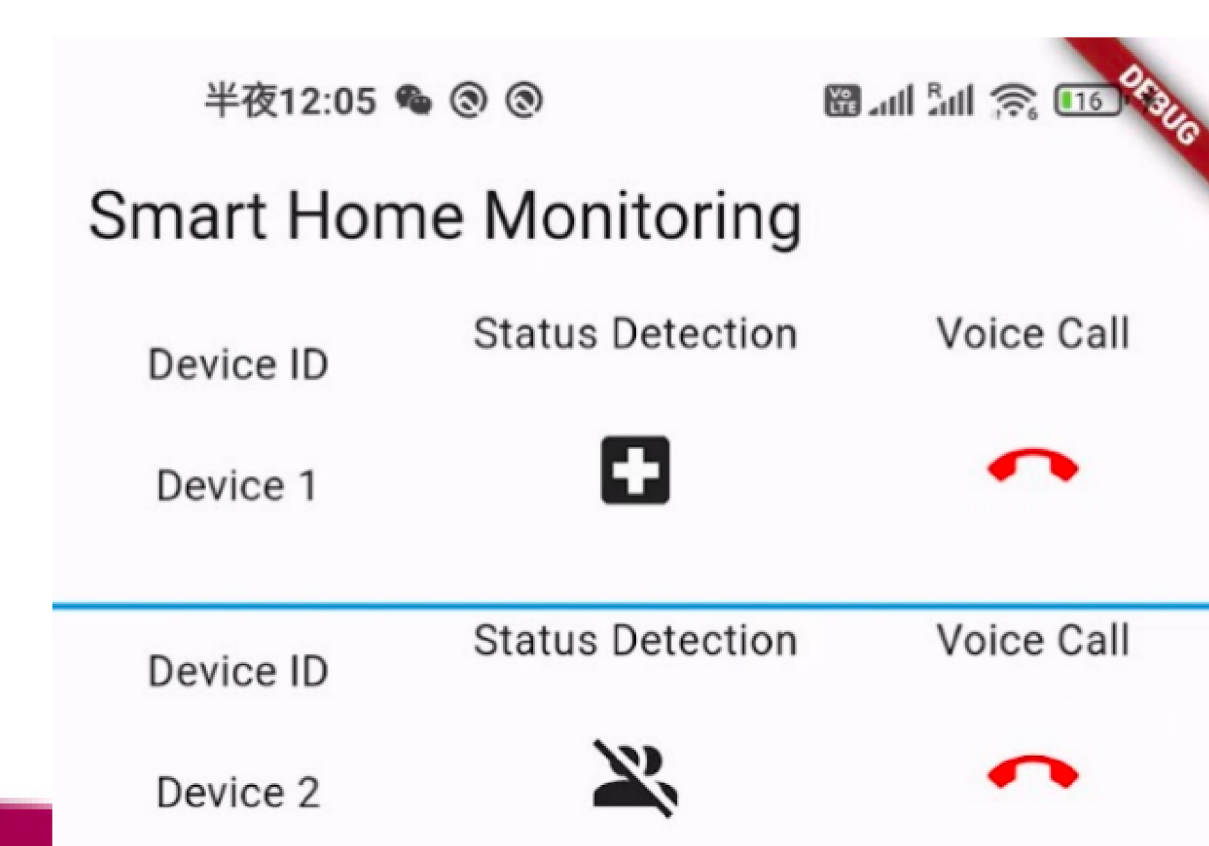
Case 3



Case 4



Case 5



Case 6

