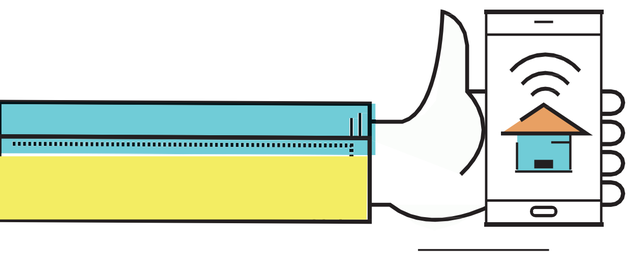


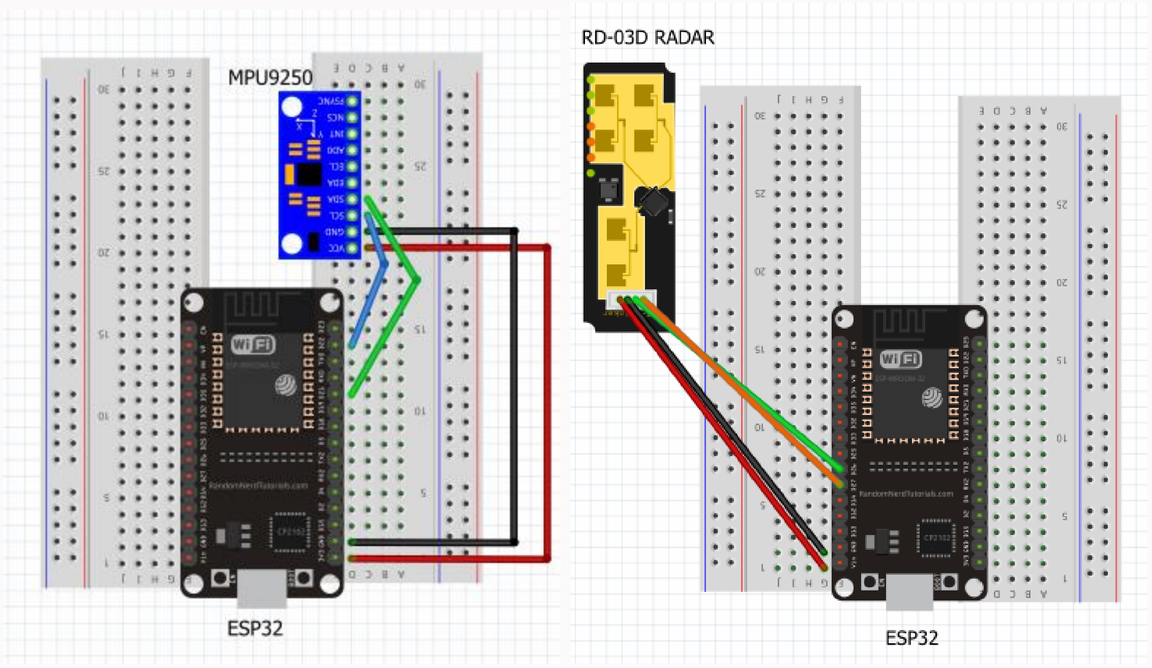
INETRDISCIPLINARY CENTER FOR SMART TECHNOLOGIES

Center of CS Department's Software Engineering Track

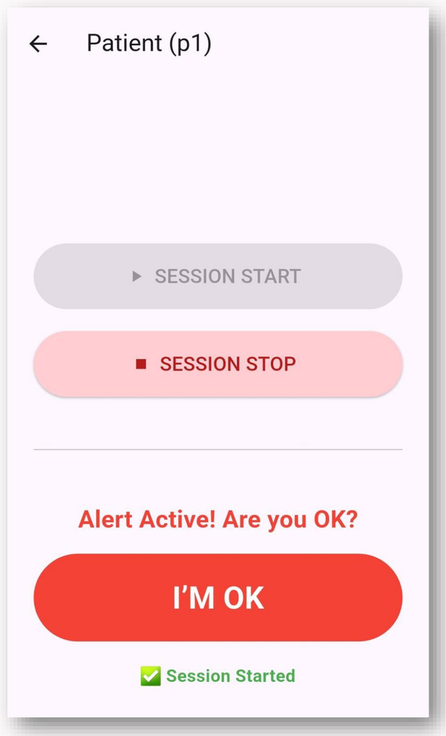
Patient Motion Monitoring System

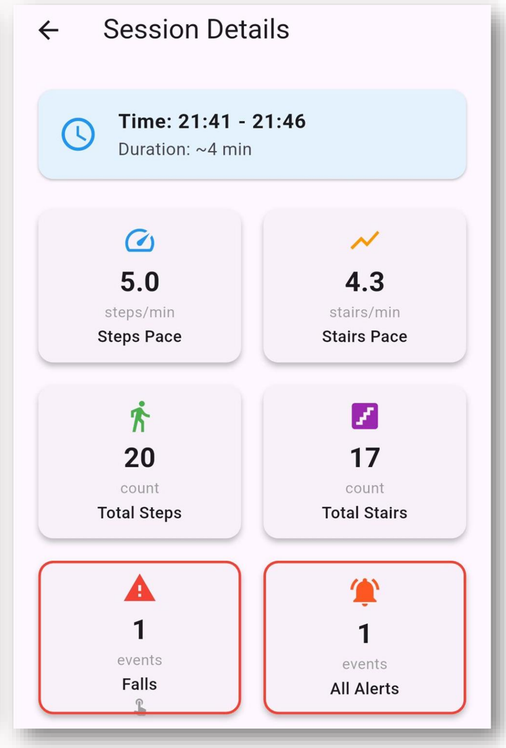
- A patient-activated IoT home rehabilitation monitoring system that safely tracks recovery without intrusive surveillance, using **a leg-worn IMU and room radar** to measure activity and detect safety risks.
- **Patient :** the system operates on patient-activated sessions to measure steps, stair climbing, and basic movement states
- **Caregiver :** Simultaneously monitoring for falls and prolonged immobility, when a risk is detected it alerts a caregiver, and the patient can confirm they are okay to cancel the alert.
- **Doctor :** uniquely providing doctors with both a real-time view of the current session and detailed historical summaries that translate raw sensor data into actionable clinical metrics.

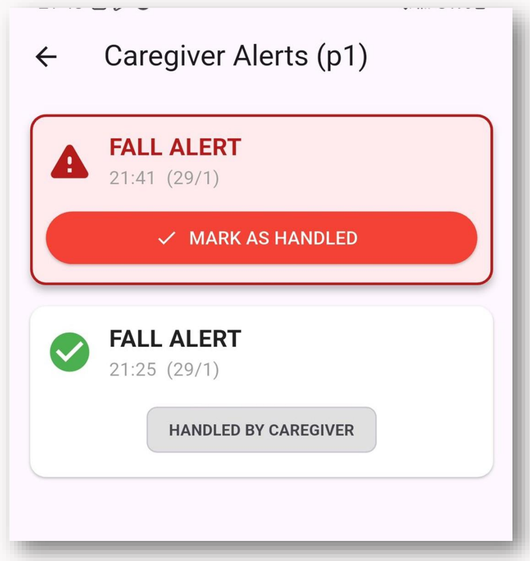
Wiring diagram



Flutter app







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A Project in Internet of Things (IoT)