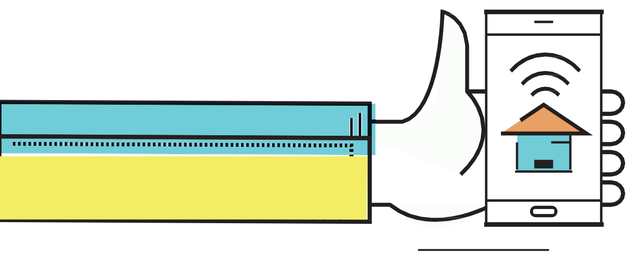
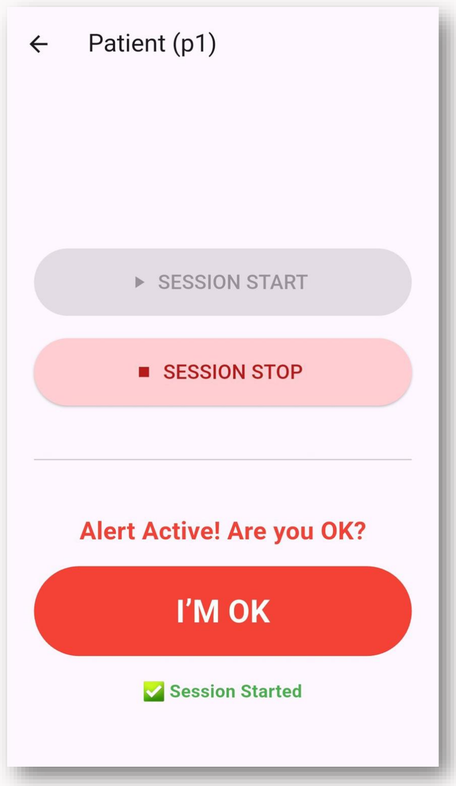


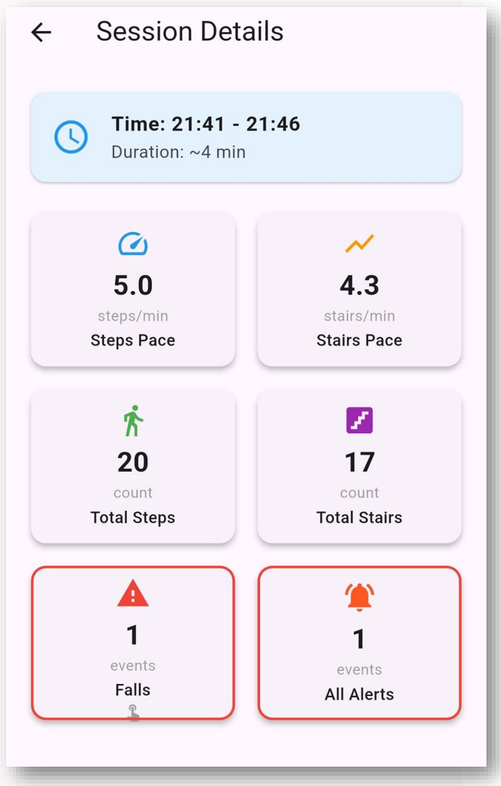
ICST INETRDISCIPLINARY CENTER FOR SMART TECHNOLOGIES

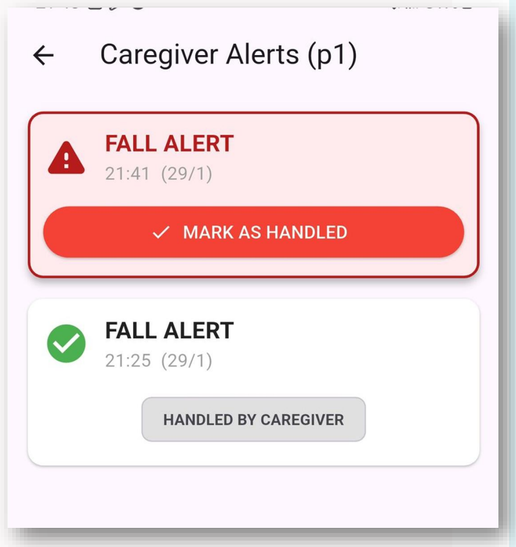
Center of CS Department's Software Engineering Track

Patient Motion Monitoring System

Our project is an IoT rehabilitation monitoring system designed to safely track patient recovery at home without intrusive surveillance. Combining a leg-worn IMU and room radar, the system operates on patient-activated sessions to measure steps, stair climbing, and basic movement states while simultaneously monitoring for falls and prolonged immobility. To ensure safety without false alarms, the system alerts a helper only if the patient fails to confirm they are okay. Uniquely, it provides doctors with both a real-time view of the current session and detailed historical summaries, translating raw sensor data into actionable clinical metrics—such as specific step counts and activity duration—to support data-driven adjustments to the rehabilitation plan.







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Itai Darban + Tom Sofer

A Project in Internet of Things (IoT)

Computer Science Department

הטכניון מכון טכנולוגי לישראל