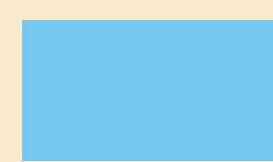


WHY

After **mild ankle sprains**, further injuries might still occur with harmful movements, which are hard to detect and will take longer to recover. Most available ankle braces stabilize but do not have the ability to **monitor** those movements.

This smart ankle sensor enhances ankle braces to track the ankle movements and **alert** users when harmful movements were detected to **avoid further injury**.

Extend to be used for all kinds of recoveries that need controlling the movements, such as compressing or bending for ankles or elbows.



Arduino Nano 33 BLE



Battery with JST connector



Flex Sensor



Pressure Sensor

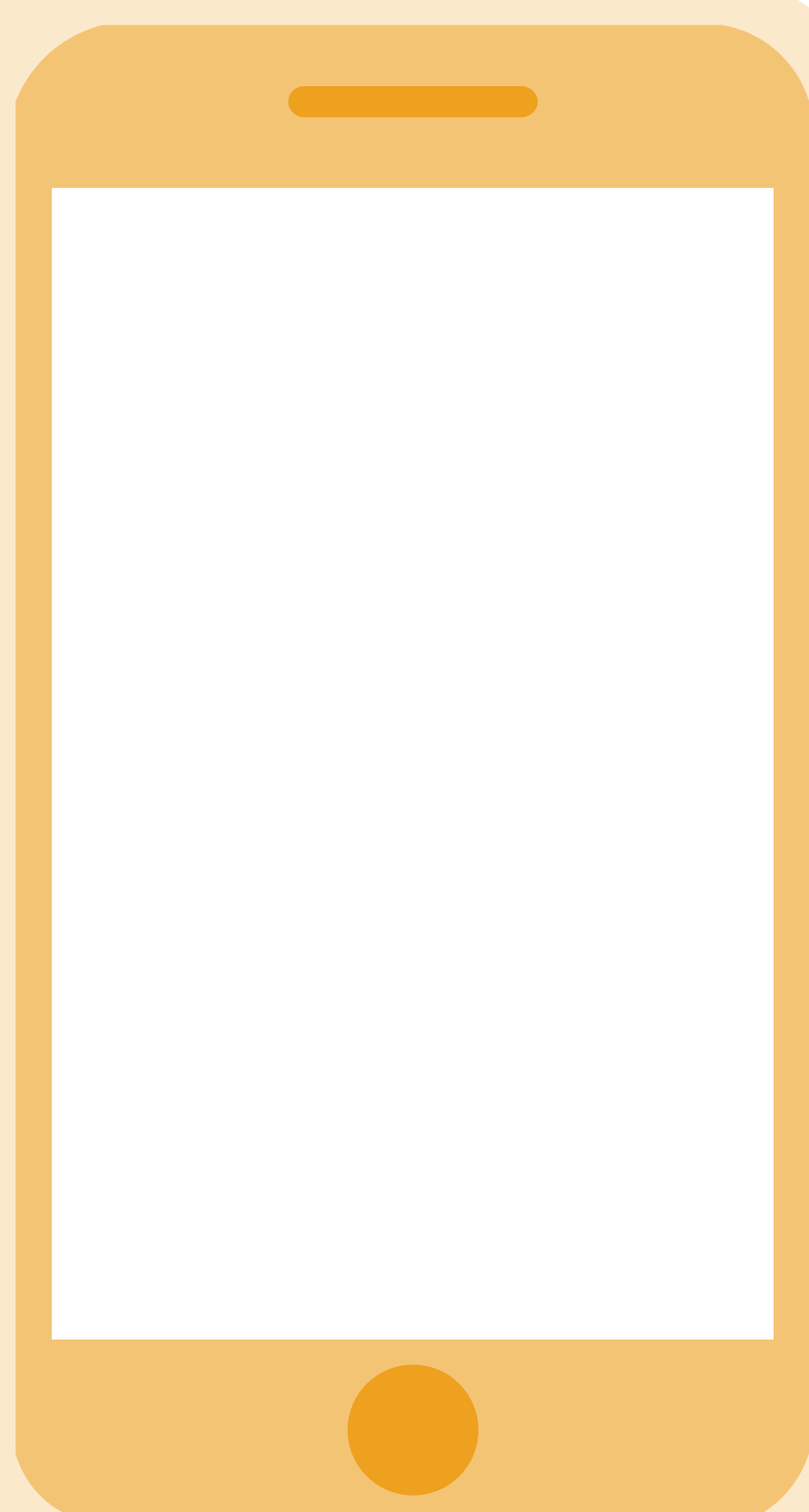
Simply stick to ankle braces
Removal be and reusable

SMART ANKLE SENSOR

A technology enhancing ankle brace that uses sensors to track incorrect movements and alerts the wearer to avoid further injury from mild sprain

Yuren Sun

B.S. in Computer Sciences, Economics, and Mathematics



One-click connect through Bluetooth



Monitor ankle movements with sensor data



Customize thresholds for detection and notifications for alert



Send alerts when harmful movements are detected