Geriatric Fall Injury Prevention Device

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Background…

- 250,000 hip injuries
- Costs $7-$10 billion /year
- Intrinsic factors cause most falls
The Product

Components:

- Belt-like device
- Air bag
- Body Movement Sensors
- Microprocessor
The Sensor

- Accelerometer
- What about rotation?
How does it work?

- Consists of 46 unit cells and a common beam.

- Mismatch in the two capacitances, resulting in output signal.
Accelerometer Test Results

Voltage (V)

Time (s)

Still
Sitting
Standing
Walking
Falling
Recommendations

- What’s next?
Questions?