

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*

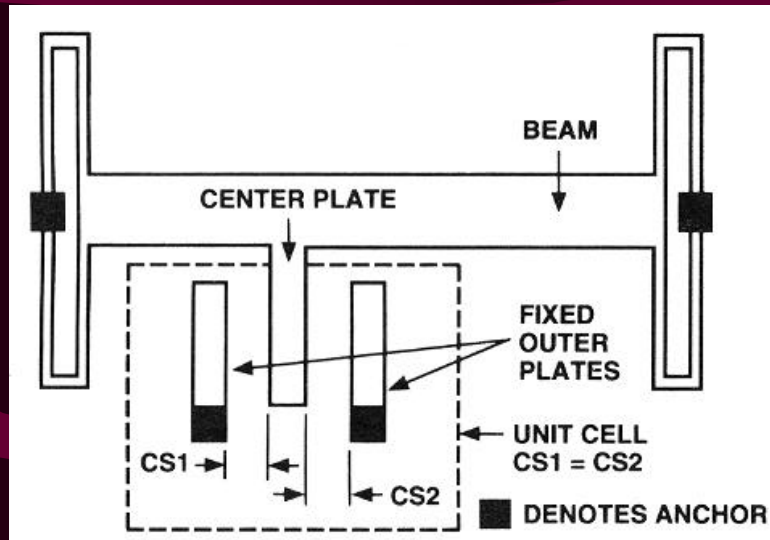


The Sensor

- *Accelerometer*
- *What about rotation?*

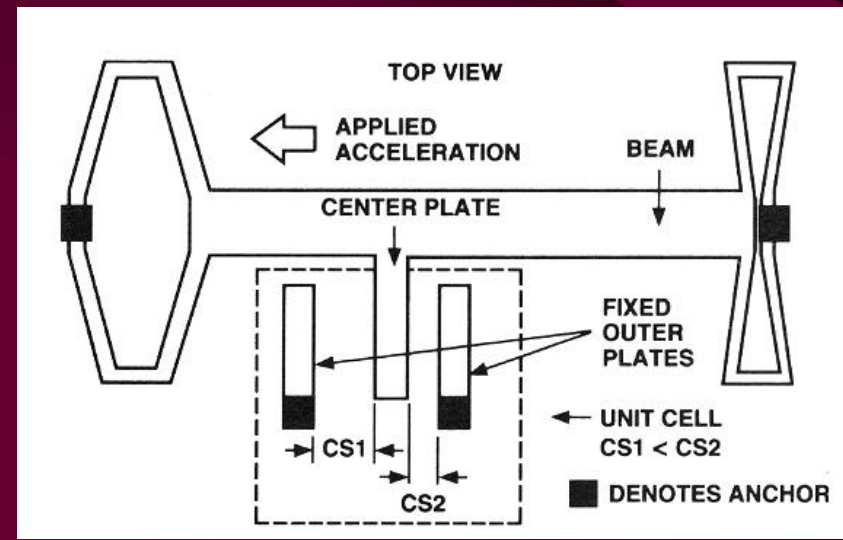


How does it work?



➤ *Consists of 46 unit cells and a common beam.*

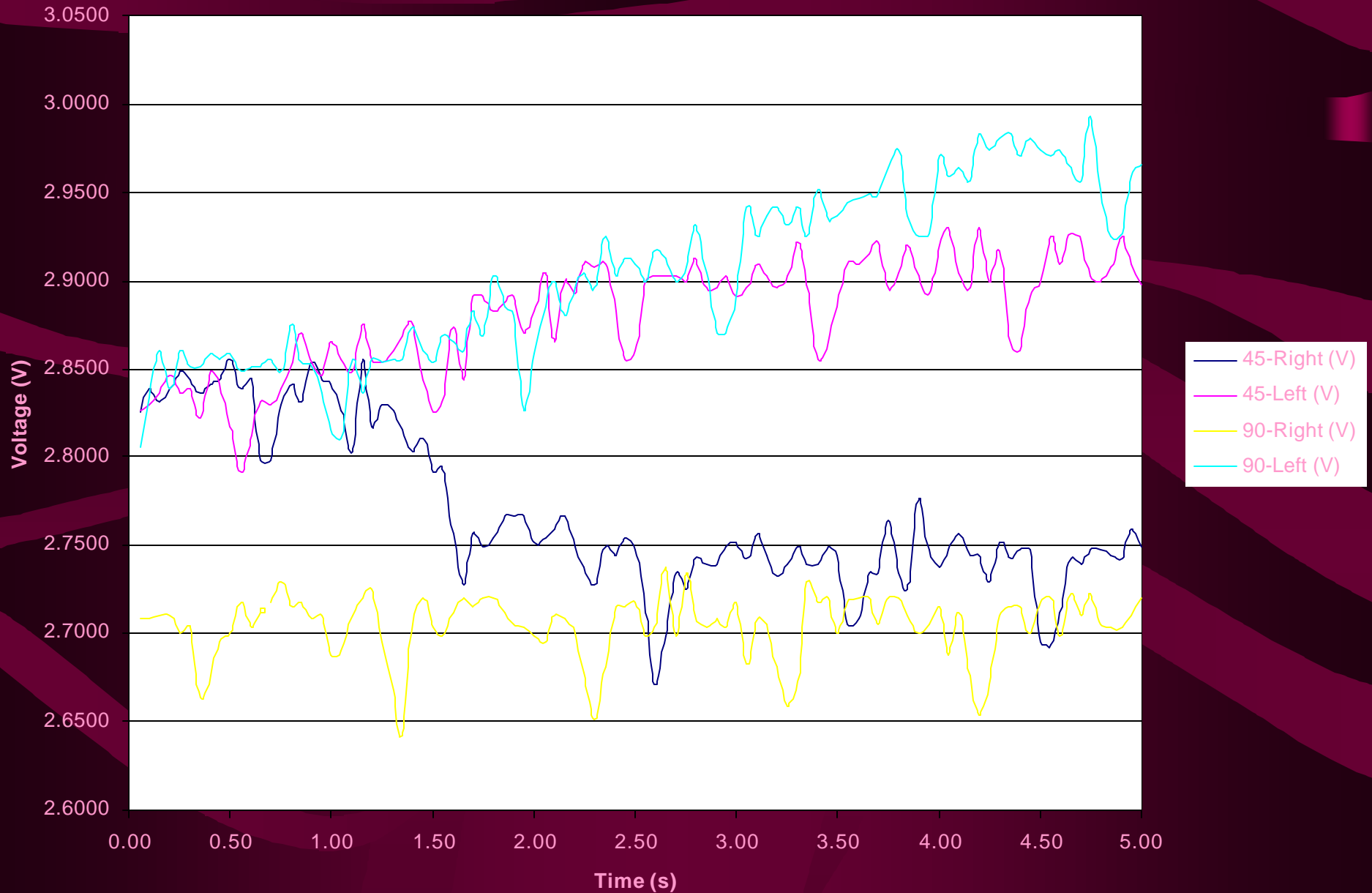
➤ *Mismatch in the two capacitances, resulting in output signal.*



Accelerometer Test Results

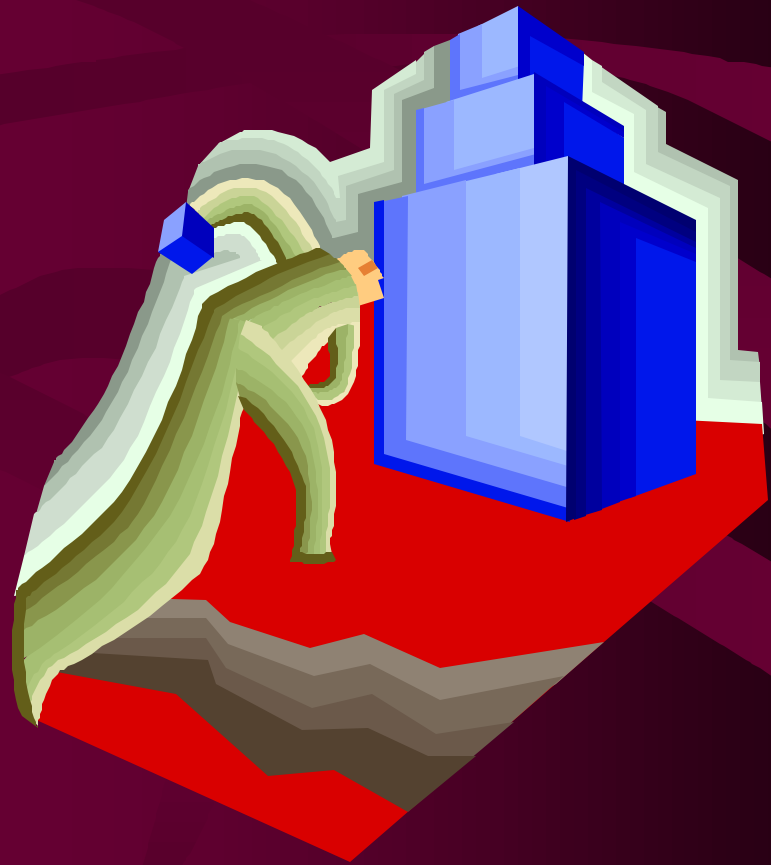


Tilt Sensor Results



Recommendations

➤ *What's next?*



Questions?

