SEIZURE MONITOR – ENTREPRENEURIAL PROJECT: PROPOSAL

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OVERVIEW

- Background Information
- Basic Principles of Our Design
- Client
- Current Technologies
- Components of the Watch
- Components of the Alarm
- Methods
- Budget
- Questions
BACKGROUND INFORMATION

- Epilepsy
  - Prevalence
  - Characteristics
  - Medication

- Seizures
  - Location
  - Consciousness

- Tonic Clonic Seizures
  - Cause
  - Seizure threshold
  - 3 stages

- Danger of Unnoticed Seizures
BASIC PRINCIPLE OF DESIGN
CLIENT

- Patients who suffer from seizures
- Physicians who specialize in seizures
- Caregivers (Parents, Spouses, Nurses, etc)
What's Out There?

- **Medpage ST-2**
  - Monitor designed to detect and raise an alarm from a sleeping person experiencing regular muscular convulsions

- **MP5 - Complete System - Bed Motion Alarm**
  - The system is set up by placing the sensors between the mattress and box spring
What's Out There (Cont'd)

- Emfit Nocturnal Tonic-Clonic Seizure Monitor
  - detects when a person has continuous quick-paced movements over a preset period of time and then triggers a notification.

- Current Patents
  - Implantable seizure monitor
  - Brain Signal Telemetry and Seizure Prediction
COMPONENTS OF THE WATCH

- Velcro Strap
- Analog vs. Digital
- Waterproof
- Accelerometer
- Surface Mount Bluetooth
- PCB Board
- Coin Battery

http://www.amazon.com/Timex-T5H421-Ironman-30-Lap-Velcro/dp/B000SZPZFC
COMPONENTS OF THE ALARM

- Time
- Snooze/Alarm Capabilities
- Speakers
- Lights
- Surface Mount Bluetooth
- Power: Battery and DC
- Low battery LED
- PCB Board
  - Microcontroller
Methods

- Accelerometer
- Signal to Alarm
- Bluetooth
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QUESTIONS?