Team OHM Senior Design

Initial Design Ideas:

1. Small sub-stations that communicate strain data to its parent base-station on each bridge.
   1. Sub-station Parts
      1. External housing box
         1. Resistance to weathering
      2. Sensor and PCB
         1. Strain gauge
         2. Circuitry for sending short range data
      3. Solar panel
         1. High Efficiency?
      4. Long-life energy storage device
         1. Battery
         2. Capacitor
   2. Base-station Parts
      1. Receive antenna and circuitry
      2. Processor unit to convert strain data
         1. Small processor to convert analog strain data to digital signal
      3. Transmit antenna and circuitry
         1. GSM? 3G? 4G?
         2. How much power required?
         3. What kind of data packaging?
      4. Power supply
         1. 110V?