

Solutions to Sub-problem of Signal Acquisition

- Gold (Plated vs. Solid)
- Silver (Plated vs. Solid)
- Copper (Solid)

Solutions to Sub-problem of Analog Amplification

- Instrumentation Amplifier
- Linear Amplifier
- Multi-stage Combination

Solutions to Sub-problem of Analog Filtering

- Single-band pass filter
- Butterworth Low Pass Filter
- Bessel low Pass Filter
- Chebyshev Low Pass Filter
- 60Hz Notch Filter

Solutions to Sub-problem of ESD Protection/Safety

- Current Limiter
- Optoisolator Circuit
- ESD Protection Diode

Solutions to Sub-problem of Energy Storage

- Alkaline Batteries
- Lithium Batteries
- Lithium-Ion Batteries
- NiCd Batteries
- NiMH Batteries
- Zinc Carbon Batteries

Solutions to Sub-problem of Digital Sampling/Wireless Communication

- Crossbow MicaZ
- Crossbow Imote2
- Moteiv TelosB
- Moteiv TmoteSky
- Moteiv TmoteMini
- MaxStream XBee Pro

Solutions to Sub-problem of Wireless Specifications

Wireless Protocol:

- ZigBee
- 802.11
- Bluetooth
- Infrared
- Ultra Wide Band

Wireless Topology:

- Ring
- Mesh
- Star
- Tree

Solutions to Sub-problem of Error Detection & Correction

- TinyOS data-link layer data detection & correction
- Custom data-link layer data detection & correction
 - Parity verification
 - Checksum verification
 - Redundant Data Streams
 - Acknowledgment system
 - Interleaved Packets

Solutions to Sub-problem of EEG Visual Feedback

- Brainbay
- BioEra
- Neuroserver
- Custom Software Design w/ Elements from Open-Source Applications

Solutions to Sub-problem of Network Visualization

- Crossbow Moteview
- Custom Built Software
- AJAX Web Interface