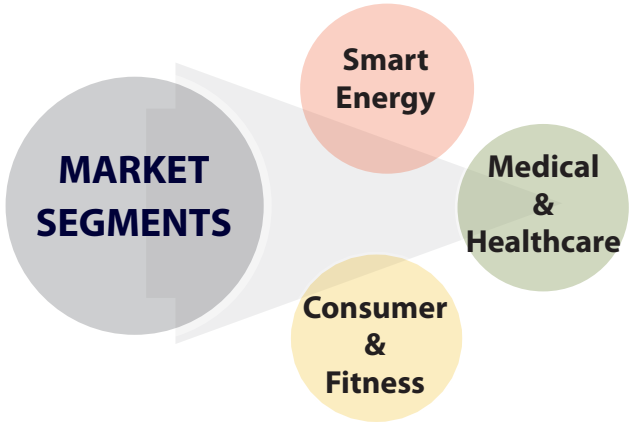


# TECHNOLOGIES

<b>Microcontrollers</b>	Low power 8/16/32 bit TI MSP 430 Freescale SO8 – Kinetis Energy Micro EFM32 ARM Cortex M3/M4
<b>Interfaces</b>	USB, SPI, UART, I2C
<b>Communications</b>	ISM band radios at 2.4 GHz and 433/865/915 MHz Powerline (PLC)
<b>Radio protocols</b>	ZigBee, 802.15.4, ANT+, 6LoWPAN, proprietary
<b>Sensors</b>	Accelerometers, gyros, magnetometers, pressure, heart rate, stride, temp...
<b>Power sources</b>	Coin cell, Thinergy cells, rechargeable Li-ion
<b>Displays</b>	Ultra low power E-paper, segmented LCD



### Alliance Memberships



**ANT+**



**ZigBee**  
Member

### Technology Partners










MCU's and Radios designed for coin cell power

Kinetis MCU's, 802.15.4 Radios, Sensors

Solid-state, rechargeable, thin-film micro-energy storage devices for embedded applications

Ultra-Link Processing™ system for low-power, long distance monitoring and control applications

Bluetooth low energy and Ultra Low Power Radios

Low power MCU's, Power Line Communications

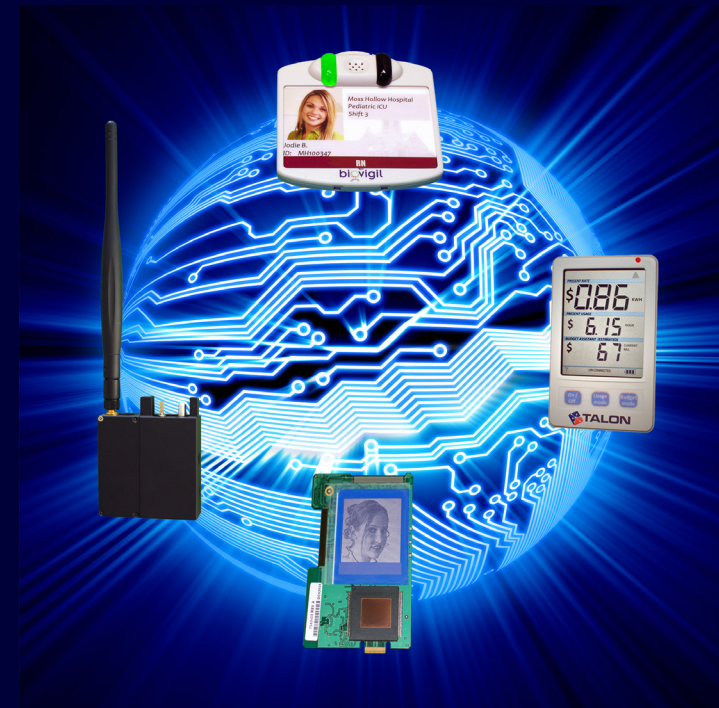
Preferred Low Power Wireless in CA, 802.15.4, sub GHz Radios and MSP430 MCU's

Broadcast Video MPEG-2 & H.264 Voice CODEC G.72X, MELP & GSM

3750 Convoy St., Suite 320 San Diego,  
CA 92111  
Office: 858.653.0100  
Inquires:  
scott.mcdermaid@taloncom.com  
**www.taloncom.com**



## Wireless Product Development



### Specialists in

- Custom Low Power Wireless
- Radio System Architecture
- Battery Powered Devices
- Embedded Design

# WHY CHOOSE TALON? OVERVIEW

Talon Communications is a Product Development Company specializing in low power wireless and embedded design. Talon designs your product using ultra-low power 8/16/32 bit micro-controllers, sensors and wireless communications.

Our engineers are experts at implementing low power radio protocols and writing compact, power efficient firmware. We design products so they run extremely efficiently when awake and utilize the deepest possible sleep modes while inactive.

Designing successful low power wireless products requires many specialized skills. Talon routinely helps customers on projects where their engineers selected the wrong radio or underestimated the challenges of hitting battery life targets.

**Do it right the first time!**  
Call Talon for design help

## Company Highlights

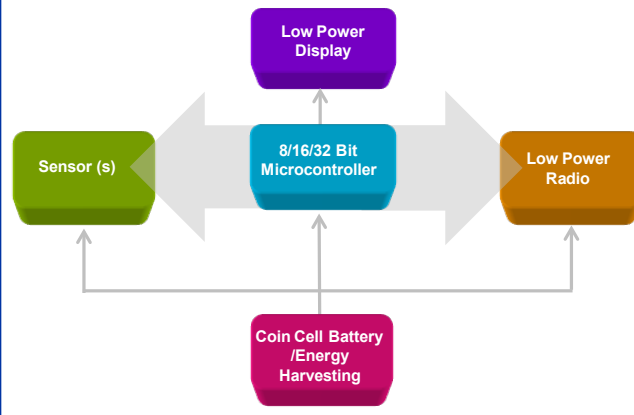
Location: San Diego, CA  
 Founded: 2002  
 Size: 15 employees  
 Focus: Low power wireless and embedded design

**Claim to fame:** Designed the Green Fridge Magnet, the world's 1st ZigBee-enabled **In-Home Display** (2007)

# WHAT DO WE OFFER? DESIGN SERVICES

- ▶ High Level System Design
- ▶ Low Power Radio Protocols  
 ZigBee, 802.15.4, 6LowPAN, ANT+ and proprietary stacks
- ▶ Hardware Development
- ▶ Firmware Development
- ▶ RF Design & Optimization
- ▶ Mechanical Industrial Design
- ▶ System Integration
- ▶ Battery Power Optimization
- ▶ Rapid Prototyping
- ▶ Manufacturing and Distribution

## Illustration of Typical Project Block Diagram



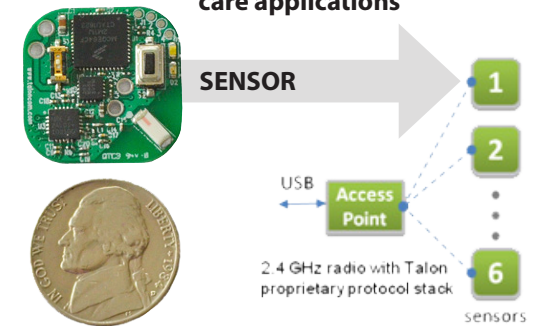
## Talon's Specialities

- ▶ Designing Wireless Sensor Networks
- ▶ Selecting the Best Low Power Radio Protocol for each Application
- ▶ Developing RTOS-free Firmware for Ultra-low Power Consumption
- ▶ Designing Products around Coin Cell Batteries

# DESIGN EXAMPLES

## Wireless Bandage Sensor System

**Captures body motion in medical/intensive care applications**



- ▶ Transmits 3 axis accelerometer data at 50 Hz
- ▶ Operates for 4 days on a single CR1620 coin cell
- ▶ Low mass: only 2.7 grams with battery

## Healthcare Hand Hygiene Monitoring

Talon designed the system from scratch including the wireless badge with sensor, door sensor and records database.

