

Technical Areas of Excellence

- **Expeditionary Power**
 - Solar/Hybrid Systems
 - Li-Ion Batteries – advanced cell technology and thermal packaging
 - Solar photovoltaic (PV) solutions with MPPT
 - Smart power conversion and distribution
- **Cryogenics**
 - Miniature cryocoolers
 - Custom cryogenic systems
 - Control algorithms and advanced electronics
- **Space Electronics**
 - Radiation hard, cost effective designs
 - Simulation and analyses
 - Prototyping

Current and Recent Programs

- USMC Ultra-Lightweight Expeditionary Power System
- MDA SmallSat Cryocooler
- NASA SmallSat Cryocooler
- Create Tactical Space Cooler Electronics
- NASA SmallSat Star Tracker
- TouchLight Power Scavenging Electronics
- AutoCrib TX750

Company History

Wecoso LLC, dba West Coast Solutions (WCS), was founded in June 2015 by Dr. Carl Kirkconnell. The backbone of the team is a group of Hughes / Raytheon colleagues with decades of demonstrated success together. This mature starting point positioned WCS to make immediate impacts for the Warfighter from the start. We won a USMC SBIR Program in 2015 on our very first proposal, which kick started rapid growth that continues today. In our short history WCS has already notched dozens of wins while developing innovative and disruptive technology for NASA, Missile Defense Agency, and multiple prime contractors.

Contact Us

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It starts with a conversation ...



Vision Statement

Be the perfect Small Business partner for the United States Government and Prime Contractors in the technology areas where we excel.

Mission Statement

Provide product development and technical services in three main disciplines: Cryogenics, Expeditionary Power Systems, and Space Electronics.

Achieve Customer Alignment through extreme flexibility, recognizing the unique needs of each Customer.

Bring commitment, team work, excellence, innovation, agility, and efficiency to every task.

Approach

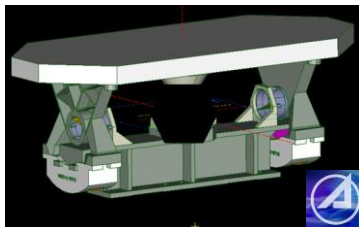
West Coast Solutions is a talented, multidisciplinary team of experienced aerospace and defense professionals committed to solving your most challenging development problems:

- Conceptual Design
- Detailed Design
- Proof of Concept Experiments
- Prototype Build and Test

Skilled firmware, electrical, mechanical, and software engineers led by seasoned program managers expertly plan and execute all phases of your program, from imagineering thru hardware realization.

Space Exploration Technology

Pointing Mirror Mechanism Control Electronics (PMMCE)



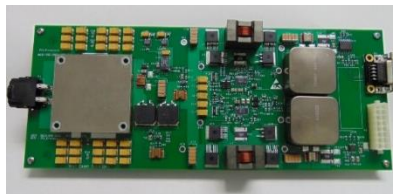
- Control electronics for USAF Next Gen OPIR technology
- Custom rad hard ADC circuit

SmallSat Star Tracker



- SmallSat Attitude Determination
- 0.7 arc-sec pointing accuracy demonstrated (night-sky test, Haleakala, May 2018)

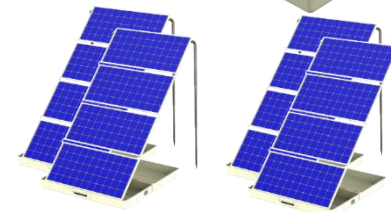
Cryocooler Electronics



- Stirling, pulse tube, JT, Brayton
- Low cost "tactical space" designs

Expeditionary Power Technology

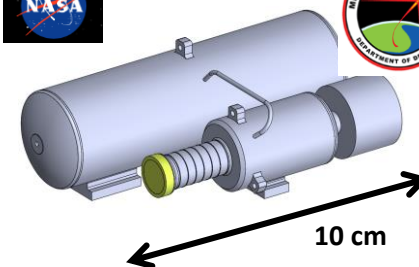
Ultra-Lightweight Expeditionary Power Supply (U-LEPS)



- 2 kW-class solar hybrid power
- 3 kWh batteries, < 20 kg (150 Wh/kg)
- Robust, intuitive, no load drops

Cryocooler Technology

SmallSat Stirling Cryocooler



- NASA - SSC: 200 mW @ 80K
- MDA - SSC-X: 2.6W @ 110K
- Lightweight, >25% Carnot efficiency