



We Care Solar Associate Engineer Job Posting

Who we are

We Care Solar is an award-winning U.S. nonprofit organization dedicated to strengthening health care and education in under-resourced countries by improving access to clean reliable electricity. Since 2010, We Care Solar has designed and delivered compact durable solar electric systems to under-resourced health centers and schools, replacing candles and kerosene lanterns with bright, efficient LED lights and power for essential devices.

Solar for Healthcare: Our Light Every Birth initiative is transforming maternal health care at the national level in select countries in Africa. The We Care Solar Suitcase provides health workers with highly efficient medical lighting and power for mobile communication and medical devices. This device is effective in a range of medical and humanitarian settings and has been distributed to 6,200 health facilities worldwide. Our training programs build local capacity in solar installation, operation and maintenance.

Solar for Education: Our education program, called We Share Solar, empowers students and educators to “Light the World.” Students learn about the global challenge of energy poverty and gain the skills to assemble specialized Solar Suitcases for energy-deficient schools and community centers.

We Care Solar has received international accolades and numerous awards, including the 2019 Zayed Sustainability Award, the 2017 UNFCCC Momentum for Change Award, the 2015 UN DESA Powering the Future We Want Award and the 2013 CNN Top 10 Heroes.

We are a mission focused organization and team that likes to have fun while doing serious work. Our team includes global staff from five of our priority countries and many of our team members have been with We Care Solar for more than 5 years. We are extremely committed to providing a fun and flexible work environment (virtually and in-person) while ensuring that we are able to deliver cost effective programs with high impact.

The role

The Associate Engineer will provide engineering and technical support across the organization, assist with logistics around manufacturing and shipping, and lead technical guidance for programs on training and maintenance. This position will support engineering work for version 2 (V2) and version 3 (V3) of the Solar Suitcase. The ideal candidate works hard without a lot of supervision, is willing to

help out with any task required, and is eager to work on a team for a common vision. International and domestic travel may be required up to 5% of time (1-2 trips per year).

This position will report to the Director of Engineer (who is based in Colorado). We are a fun, strong and cohesive team that is currently working remotely. We will return to our Berkeley, CA office when it is safe to do so. While we prefer this position to be located in the Bay Area or greater Denver area (where the Director of Engineering is based), we will consider remote candidates who can work during PST time zone.

Key responsibilities

Service, maintenance, and sustainability 50%

- Create and manage long-term a service/maintenance infrastructure for V2 and V3 Solar Suitcases in countries where we work (Liberia, Sierra Leone, Uganda, Zimbabwe, others to be added)
- Work with Programs and Engineering on in-country incident reporting structure and review
- Setup and own a system to track and catalog problems through repair as well as design change
- Setup and optimize a system to triage problems and interact with field technicians
- Pursue all field issues to understanding (within reason) of root cause, including working with component makers and vendors to drive resolution when necessary
- Assess and setup in-country sources for hard-to-ship items like lithium batteries and panels
- Work with Director of Engineering to enable and support remote monitoring
- Understand V2 and V3 Solar Suitcase architecture well enough to troubleshoot to root cause

Shipping 15%

- Get Dangerous Goods Shipper certified and become lead expert on regulations, agencies, required documentation, trends, etc. of shipping lithium batteries
- Create, manage, and upkeep of shipment documentation systems including Dangerous Goods forms, palletization drawings, and labeling
- Create additional methods (Excel, Monday, etc.) to auto-create and streamline shipment paperwork
- Interact with testing agencies (UL, TUV, CE, SGS, etc.) as necessary to get our products tested and/or shipped

Manufacturing 15%

- Manage inventory of long-lead-time components we source (PV panels, batteries, tool kits, etc.)
- Read and understanding electronic component spec sheets in order to accept, reject, and/or find suitable part replacements as necessary
- Handle year-end inventory reconciliation across multiple contract manufacturers
- Setup system to handle legacy maintenance parts manufacture, storage, delivery, installation, and return (as necessary)
- Attend weekly meetings with all manufacturers and suppliers, and stay familiar with ongoing supply and manufacturing issues

Programmatic support 10%

- Support technical trainings (remote & in-person) as necessary; 1-2 international and domestic trips per year
- Work with and support Programs Department on documentation, review of installation reports, technical advice, service planning, etc.
- Work with Programs to create order forecasts, work with manufacturing to schedule parts orders and build schedules to these forecasts

Design 10%

- Design new parts for legacy systems as necessary
- Improve existing hardware/software designs
- Take on special engineering projects, from definition to delivery

Requirements and qualifications

- Bachelor's degree Engineering, preferably Mechanical or Electrical
- Minimum 2 years of demonstrated engineering work experience
- Experience managing a BOM with part sourcing and manufacturing flow
- Autodesk Inventor knowledge (or other 3D solid-modeling software experience which could translate) to manage and create part drawings as necessary
- Comfortable with firmware, programming, and scripting languages (PERL, Python). Ability to parse and process text or binary log data
- Demonstrated experience in command line interfaces, serial communications, and/or ssh
- Comfortable with construction methods and hands-on building: climbing on roofs, handling tools, installing solar, spotting installation problems
- Strong attention to detail and organizational skills required
- Strong written and verbal communication skills
- Proficient in Microsoft Office, especially Excel
- Flexibility to work in a small organization with multiple stakeholders (Contract Manufacturer, Product Engineering, Programs and Finance)
- Due to nature of international work, willing to conduct 1-2 international and domestic trips per year and occasional work outside of typical work hours

You'll impress us if

- You know computer programming languages well enough to perform firmware programming, microcontroller programming, test tool creation, and manage remote monitoring data flow and analysis
- You have knowledge of (primarily DC) appliances the Solar Suitcase may power like vaccine fridges, water treatment, communications, security lighting, etc.
- You have experience creating and maintaining technical documentation
- You have worked in the non-profit space
- You have lived or worked in an international or multi-cultural environment

What we offer

- **Mission-driven work.** Our work has a direct impact for millions of mothers and newborns. You will see and feel the impact of your work on a daily basis.
- **International work and travel.** You will work with a variety of staff and consultants from around the world. You will have opportunities to lead trainings in our countries of operation and work with our staff, installers, and technical partners in-country on sustainability and maintenance. We estimate 1-2 trips per year, but if there's interest it could be more.
- **Competitive salaries.** A competitive salary commensurate with experience and based on geographic location.
- **Comprehensive benefits.** Health, dental, eye insurance, 28+ paid vacation days and holidays, employer contributed IRA, and commuter benefits.
- **Flexible work schedule.** We pride ourselves on offering a flexible and fun environment while achieving our mission. You'll have autonomy to create a schedule that brings your best work including working remotely and setting hours of work. This position is full-time but we'll consider someone who wants to work between 30-40 hours.
- **Strong culture.** A working environment that values humility, integrity, inclusion, professional growth, and learning.
- **Talented and dedicated team.** A collaborative, hard-working, international team that is willing to do what it takes to get the job done, is committed to learning and improving, but laughs often and creates time for having fun.

EQUAL OPPORTUNITY EMPLOYER

We Care Solar is an equal opportunity employer. We are committed to fostering a progressive work environment that encourages participation by all team members and ensures that all voices are heard. All applicants will be considered for employment without attention to race, color, religion, sex, sexual orientation, gender identify, national origin, veteran or disability status.

Applying

Please send a cover letter and resume by **July 16th to:** recruit@wecaresolar.org. Applications will be reviewed as they are received. Only shortlisted candidates will be contacted.