

TECHNICAL ASSISTANCE REQUEST

OVERVIEW

Our plan at SimpliSolar is simplify solar energy generation for the everyday user. The SimpliSolar solar energy generation system (HelioFlex) will offer a simple, clean and user-friendly interface that is customizable and adaptable to user energy needs. Solar components will integrate with the device in a “Plug and Play” fashion. The device will consist of an integrated PCB circuit that incorporates circuitry supporting various ampacity and include modular over current protection features. The onboard software/AI will be responsive to user input and suggest appropriate components based upon user needs through a graphical user interface (GUI) included in the device (Figure 1).

ELECTRICAL ENGINEERING

The SimpliSolar system will need expertise in the field of electrical engineering. We envision the apparatus as a solid state device with an integrated PCB- style circuit board which will accept various amperage loads and customizable over current protection points. The various solar components (eg. solar panel, battery, inverter, charge controller) are expected to integrate with the integrated circuit in a “plug and play” fashion. Expertise is needed in system design and testing for such a device. Safety is also of utmost concern, obviously, as this product is geared to the layperson.

SOFTWARE ENGINEERING

The SimpliSolar device will incorporate software that is user-friendly and responsive to user needs. The user will be able to input specific solar energy generation need parameters and the integrated software will perform various load calculations and provide appropriate device configurations and required components (eg. , fuse amperage, inverter wattage, battery size, charge controller). The user will interface with the device using an integrated graphical user interface.

MANUFACTURING

The SimpliSolar device (ie. HelioFlex) is intended to be a relatively low cost, solid state device with the required circuitry and overcurrent protection integrated in a simple enclosure. A rudimentary prototype has been created, but expertise in mass reproduction of the simplified enclosure and circuitry would be needed.

MARKETING

The underlying mission of SimpliSolar is to simplify solar energy generation for the layperson. We envision the SimpliSolar System (eg. device and components) being available to purchase with ease of access in mind. Examples of this ease of access may include a kiosk or display at local “big box” stores, or online via ecommerce. Market opportunities exist in the off-grid, RV, and small scale solar system segments, among others. Assistance with identifying further market applications and branding will be needed.

BUSINESS/ACCOUNTING

As with any innovative startup company, only broad generalizations about expected revenues and expenses are possible. At this point, SimpliSolar is still in the research and development phase. Assistance would be appreciated for more accurate assessments of cost of production, projected revenue and profit loss analysis.

WEB DESIGN

SimpliSolar plans to offer a multifaceted web site that offers solar energy education, customer interaction, as well as an online marketplace. Our team has developed a basic web presence (<http://www.simplisolar.org>), but a much more robust and user interactive web experience will be desired.

Figure 1. SimpliSolar System

