

ENERGY BIKE ENGINEER Volunteer Description

Envirolution

190 East Liberty Street
Reno, NV 89501

envirolution.org



About Envirolution

Envirolution is a 501(c)(3) nonprofit organization dedicated to developing dynamic energy efficiency K-12 education opportunities and community outreach programs, providing green job training, and connecting green businesses in the surrounding Reno area. Envirolution seeks to promote global change by championing local sustainability efforts that empower citizens to give back to their communities and increase the demand for jobs in green industries.

About the Volunteer Position

In an effort to build capacity and offer energy efficiency educational opportunities to teachers, students, and community members in Washoe County, the Energy Bike Engineer will be responsible for updating and refining our Energy Bike system, allowing community members to produce their own electricity and learn about energy concepts in the process. In addition to our organization using the Energy Bike at community events, Envirolution will be able to loan out energy bicycles to teachers in the Washoe County School District for use inside the classroom. Envirolution will accommodate a flexible work schedule to accommodate a 60 hour project over two months.

Required Qualifications

- Knowledge of circuits and small electrical components (bulbs, switches, multimeters, capacitors, generators, inverters, converters)
- Basic soldering skills
- Ability to draw and interpret basic schematics
- Ability to problem solve independently and in small groups.

Preferred Qualifications

- Strong work ethic
- Attention to detail
- Interest in energy efficiency

Desired Majors / Fields of Study

- Physics, mathematics, engineering, science/math education, career and technical education

Volunteer Duties

- **Draft plans** (schematics) for building a new energy bike board based off of our past example and ideal example.
- **Identify and obtain needed materials** to begin building energy bike board.
- **Assemble two functioning energy bike boards** that will work together with new energy bikes.
- **Create a labeled diagram** of the Energy Bike system (bicycle generator and board) complete with explanations of each component.
- **Write a short assembly manual** to explain steps in a way that would allow a middle school student to easily assemble the board, stand, bike, bulbs, appliances, and all wires.

How to Apply

Apply by October 31, 2015. If interested, contact using one of the methods below:

Address - Envirolution, 190 East Liberty Street, Reno NV 89501

Phone - (775) 229-8488 **Email** - molly@envirolution.org