

GHOST

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What is GHOST

The Green Hydrogen Open Source Technologies Labs NGO (i.e. GHOST), is an organization dedicated to open source sharing, improvement, and documentation of Green Hydrogen Technologies.

Correspondingly, and therefore all the source code, 3D printable designs, and other artifacts submitted to GHOST shall be made available to the general public under the GNU GPL 3 (<https://www.gnu.org/licenses/quick-guide-gplv3.html>).

In order to make this rewarding for individuals and organizations contributing the digital twins of their Hydrogen producing technology devices, GHOST shall allow for timed public disclosure so that inventors and legal owners of technology may have the opportunity to gain appropriate legal protections like patents, copyrights, and trademarks on the said works. In order for the technology contributors to gain maximum marketing advantage from the works contributed by them, GHOST shall permit them to advertise the specific digital artifacts contributed by them in a primary manner, with a fine print or less dominant statement indicating support by GHOST.

Goals of GHOST

It is the **mission** of GHOST to provide *scientifically verifiable, open-source* and *documented* digital artifacts with complete scientific chain of citations or patents, in order to achieve very high level of trust, transparency, and repeatable cost baselines for Green Hydrogen Production.

It is the goal of GHOST to eventually develop a digital twin of every electrolyzer and Hydrogen related device on the planet with publicly documented specifications.

The analysis and optimization of these digital twins with continuous improvement of the optimum boundary ensures that the best technologies are available for digital experimentation through the open source sharing license.

GHOST Software

The GHOST will also provide an open source repository with interface to integrate with, and/or to control generic electrolyzer operations. Using this will allow the GHOST will host open source IOT feeds of the physical electrolyzer operations.

How GHOST Works

GHOST will attempt to help any for profit corporation or government lab under limitations of local law, at a modest consulting cost, as long as they are willing to work with the above scrutiny, in order to achieve the best publicly verifiable optimization path to Green Hydrogen Production.

GHOST will attempt to hire consultants and researchers with expertise in various scientific domains to further examine and optimize the optimum path to massive Green Hydrogen Production.

Social Good Mission

GHOST will attempt to provide physical Green Hydrogen at best cost + delta basis, using the best documented supply chain configuration corresponding to the digital twins provided by the various suppliers, for the following *acts-of-good* either by itself, or by partnering with another person or organization with appropriate skills in the following areas of interest. Residual profits from the delta margin (TBD) and consulting fees shall be applied towards the specific recipients indicated within:

- Cleaning ocean oil-spills, plastics, and other pollutants in a scientifically open, least cost least residual method.
- Saving people's life at sea, providing safe economical replacement for heating for low-income people who are disproportionately lost in home-heating accidents, working towards human habitable self-sufficient energy islands for various refugees.
- Education of students in Hydrogen welding and glass annealing, world-wide.
- Fuel needs of USA armed forces, and all the Native Nations.
- Funds for education and welfare of members of the Native Nations and for families of those lost in the line of duty.
- Funds and support for education within USA for bright students from all over the world.

Location

The GHOST is looking for a suitable place to haunt.

Appropriate locations should necessarily provide high level of digital security, and preferably be open access to all persons in order to provide highly secure and highly transparent achievement of the previously described mission. Since these two requirements are in mutual contradiction, we prefer the first one over the second, at least in the beginning when we do not have funds to rent and upgrade a suitable facility on our own.

The location should budget 2 desk space i.e. 80 - 100 sq ft minimally for one engineer working on the software and hardware assembly.

There is opportunity to train 2-3 interns in both of the above skills and also

to broaden the skill base within the team. Therefore the space could plan for expansion within 2-6 months for this scale-up.

About

The GHOST is created with the hope that Green Hydrogen Technologies will improve with collaborative scientific accretion. With a transparent cost structure, a well defined rational process for planetary scale decarbonization may be followed, as the scale of Hydrogen production grows.

This website is currently under construction, additional details will be added at the earliest