Product Key Performance Parameters and Product Concept
for Open Source Ecology's
INSERT PRODUCT NAME

Date:

Developed By:

Approved By:

[insert product concept photo]

General Product Description:

(include purpose, special uses, operational environment description, and top level description of modules/assemblies/components if already identified)

[insert stick drawing]

Key Performance Parameters (KPP):

General KPPs:

1. **Open Source** -
2. **Modular** – Components of the GVCS function as interchangeable modules. Motors, parts, assemblies, structural building blocks, and power units can interchange, where units can grouped together to diversify the functionality that is achievable from a small set of units. To see how the different parts fit together - see Product Ecologies.
3. **User Friendliness** – Design-for-disassembly, simplicity, transparency, and open source documentation allows the user to comprehend, take apart, modifyservice, maintain, and fix tools readily without the need to rely on expensive repairmen.
4. **"Do It Yourself"** - Ability for others to replicate, per OSE guidelines.
5. **Performance** - Performance standards must match or exceed those of industrial counterparts for the GVCS to provide a comparable or better standard of living. Note that this is not inconsistent with DIY culture. **(insert industry standards here)**
6. **Industrial Efficiency** - In order to provide a viable choice for a resilient lifestyle, the GVCS platform matches or exceeds productivity standards of industrial counterparts.
7. **Ecological Design** - Our products promote a harmonious co-existence between nature and humans. The entire process and technology must fit the criteria for being environmentally friendly and regenerative.
8. **Resilience**– The systems that we are designing are designed to be adaptable. This

arises from the ability to modify, scale and replicate the components and systems to meet requirement of constantly changing conditions.

9. **Systems Design** – The whole system of life support, in terms of how the different machines and services interface with one another.
10. **Lifetime Design** – Our products are designed for a lifetime of use – via solid design, user serviceability, open source, DIY design.
11. **Substitutability** – Our products tend to the substitutability of common resources for less common or strategic resources.
12. **Robustness** – Applications of our work range from the 1st to the 4th worlds, from the city to the country, from high technology to low technology applications, at different scales of operation.
13. **Best Practice** – Utilizes previously identified Best Practices for design, prototyping, testing, and documentation.
14. **Simplicity** - Designed for absolute simplicity without sacrificing performance standards.
15. **Scalability and Fractality** – The GVCS tools are designed to be scalable to different sizes of operations, from individual households to agglomerations of villages (cities). The design should be fractal, in that each unit of operation should be self-contained (complete) and resilient.
16. **Sufficiency** – Our design focuses on sufficiency – ie, we understand that we need to reach a certain level of performance, and that is sufficient. This is distinct from continuous addition of frivolous bells and whistles.
17. **Flexible Fabrication** – This is a mode of production distinct from specialization. In flexible fabrication, general purpose machinery is used by highly skilled workers to produce a wide array of products – as opposed to specialized machines, operated by highly skilled workers, producing only a single item. Our means to flexible fabrication is the open source fab lab.
18. **Permafacture** - Ecological fabrication with lifetime design.
19. **Replicability** – OSE work is intended to be replicable, self-replicating, and viral. The open source nature, low-cost, and simplicity of our designs are key to this.
20. **Appropriate Automation** – Integration of automation whenever repetitive, difficult, dangerous, or otherwise unrewarding tasks can be carried out with computer assistance instead of human labor.
21. **Model Community**- The OSE Village with the GVCS are intended to provide a positive, best-practice example of integrated, meaningful lifestyles along the principles of abundance and prosperity - as a shining point of light to inspire people in many walks of life.

LifeTrac 6 KPPs:

1. Size, weight, power -
2. Steering -
3. Braking -
4. Controls -
5. Range of motion (turn radius? loader arm ROM? other?

6. Human factors (i.e. 1 pax, human height, other?)
7. Other capabilities?