

# Vitalizer

Increasing Crop Yield and Enhancing Nutritional Value Through Water Vitalization and Calibration Techniques

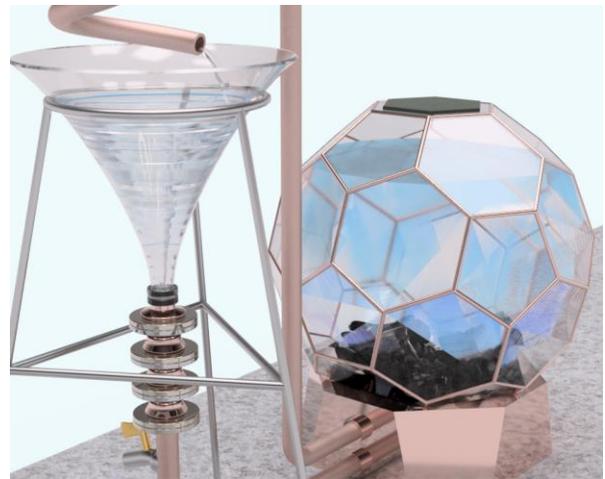
## Description

The Vitalizer device is designed to automate the 3-step water vitalization process developed by Dunedain. The current manual vitalization process has proven to increase water's voltage by 65%. This higher voltage water translates to - thus far - a 43% increase in plant biomass and a 28% increase in nutrient density.

Manipulation of vitalization strength further produces specific results: biomass, growth rate and nutrient density can all be controlled and enhanced. Specific vitalization strengths can be tailored to specific crops, those strengths varying throughout a crop's growth cycle.



*Prototype Vortexer in action - v1.0*



*Rendering of desktop model*



*Magnet calibration system*

A scientific approach addressing the role of water to increase crop yield and quality would set standards and methods for creating and applying a crop calibration system. A combination of mechanical devices and the intellectual property of a calibration system would maximize all agricultural growth output and efficiency.

## Intended Use & Purpose

The water vitalization device is designed to follow a 3-step method of increasing the electrical capacity of water. These methods are 100% natural - no chemicals or metals are added to the water. Higher voltage water directly equates to:

- Larger and healthier crops
- Enhanced energy harvesting (see “Water Battery” document)
- Enhanced hydrogen production (see “Hydrogen Generator” document)
- Enhanced ability for water filtration and desalination (see “Water Filter” document)

Dunedain is designing a vitalizer device to address agricultural needs - from small grow rooms to large businesses. This same device will apply to the above mentioned industries.

## Status

Dunedain’s manual water vitalizer has shown to increase water’s voltage by 65%. We are currently building a working prototype of a mechanical vitalizer; early indications show a further increase in water’s voltage. This is designed to work inline with existing plumbing, and eventually handle practically any water input.

## Budget, Resources, Timeline

There are various aspects of the vitalizer device, which are listed below. The final design would incorporate all aspects in one.

Project	Scope	Resources	Estimate	Duration
Vitalizer: Inline Filter	Design includes streamlining mineral exposure time. Current system is a separate reservoir; an inline, on-demand system is ideal.	Dunedain Machinist Engineer	\$100,000	4 months
Vitalizer: Vortexer	Various impeller designs are being experimented with. Sustained vortex length and diameter are important.	Dunedain Machinist Engineer	\$100,000	4 months
Vitalizer: Closed System Pump	Air tight continual pumping, closed loop, vortexing.	Dunedain Machinist Engineer	\$50,000	2 months
Vitalizer: Magnet Calibration	Electromagnet calibration system works in conjunction with vortexer. Final step in vitalization process.	Dunedain Machinist Engineer	\$50,000	2 months