



z e n v o w

Empowering awakened Civilization

*The secret of change is to focus all of your energy,
not on fighting the old,
but on building the new.*

Socrates

ZenVow: Reward System for Breathing, Meditation and Yoga Practice using Decentralized Ledger Block-Chain Technology

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Abstract

Most human labor on the planet is driven and motivated by a financial reward system, this inherited financial system functions as a form of financial slavery.

The financial oppression created by the system coerces humans in doing what they need to do, in order to generate financial income for their survival.

The results of this human activity is leading to a global crisis. Most disturbingly, the awareness of this global crisis is now common knowledge, but no immediate solutions are available to solve the problem.

How can humanity break free from the chains of financial slavery and work its way toward financial freedom in this competitive driven society? How can humanity awaken to the reality of global unity and oneness?

This paper describes a monetary reward system based on Decentralized Ledger Block-Chain Technology. This new system, rewards long term breathing, meditation and Yoga practice, all activities with scientifically proven health benefits.

This reward system works as a tool to facilitate and incentivize the transition from an era of crisis to an era of human personal development, for the benefit of all.

1. Introduction

Global human population count today, is around 7.6 Billion. Most projections estimate a rise to more than 9.8 Billion before the year 2050 and 11.2 billion by the year 2100 [1]. Moving forward in time, the rapid rate of innovation and technology in fields such as robotics, automation and artificial intelligence will most likely increase the rate of human technological unemployment [2].

In the past 50 years alone we humans have consumed more resources than the whole of humanity before us [3]. This ongoing direction will only increase the strain on public health as well as on the planets eco systems.

The fundamental problem surrounding global warming and all its consequences is not just CO2 emissions alone, is the logic of endless growth that is built into our problematic economic systems [4]. This endless growth target is un-sustainable in a finite resource planet and has overall very negative effects on our social and ecological systems.

Regarding Public health, several scientific studies now show that stress related problems account for most of hospital visits [5], making it a very serious Public Health concern.

Several natural solutions are available to help reduce stress and anxiety, and today, it is a well-known scientific fact that regular breathing, meditation and Yoga practice reduces the body's stress response, by strengthening the relaxation response and lowering stress hormones like cortisol. For this reason today we see the rise in demand for yoga and meditation classes worldwide [6].

While these practices can help reduce stress and anxiety, they are not a solution for what is the underlining causing agent. The real cause for this problem, is in great part, a result of the fabric of our social structure governed by the pressures of financial oppression [7].

The ZenVow system is designed to motivate users in maintaining regular breathing, meditation and Yoga practice while at the same time receiving cryptocurrency rewards for their efforts. This proposed solution combines, motivation for positive health practices and financial rewards.

The system uses Decentralized Ledger Block-Chain Technology in order to generate and distribute Peer-to-Peer Electronic reward [8]. This is a proven technology with a lot of potential and that can be used in order to benefit all mankind with positive reward systems like the one proposed in this paper.

2. Project Phases

In order for humans to escape the pressures of financial oppression, the proposed solution invites them to abandon labor that does not serve them nor the planet. By abandoning the non-serving labor they can now start to contribute to a new system that financially rewards healthy activities.

The rewards generated by the system are given to users that participate in breathing, meditation and Yoga sessions. The user can then spend/exchange these rewards for fiat currency or any other crypto currency in order to purchase goods and services.

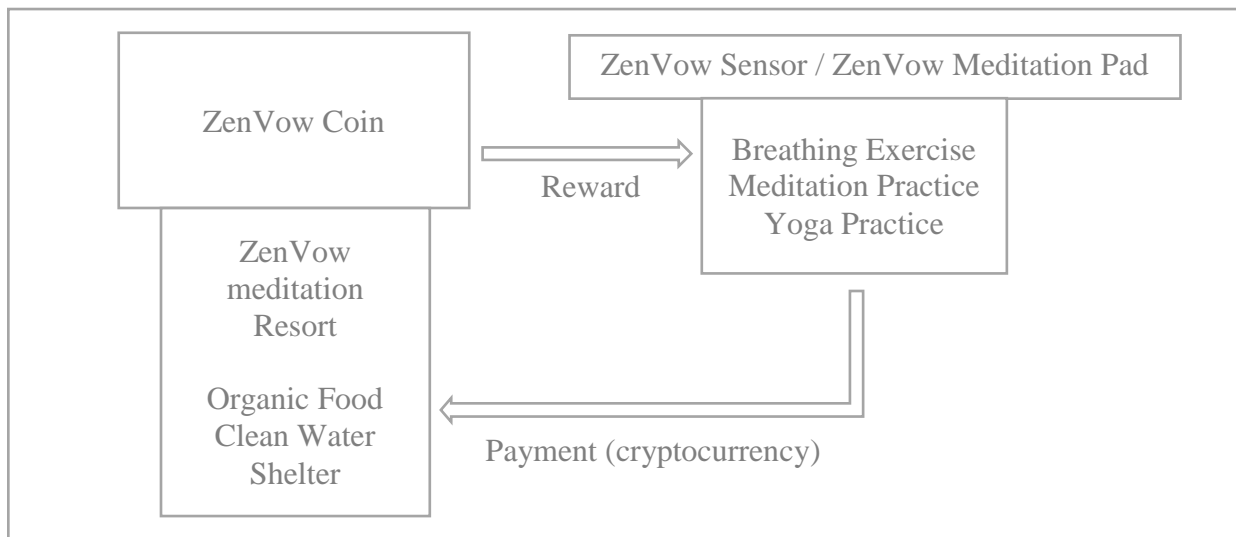


Figure 1. ZenVow Sustainability Concept

2.1 ZenVow Phase one

The first phase of the project, will launch ZenVow products, the ZenVow Sensor and the ZenVow Meditation Pad.



Figure 2 . Zenvow Products

In this phase, the project also intends to build a ZenVow Meditation Resort in Portugal that will serve as proof of concept for future ZenVow Meditation Resorts all over the world.



Figure 3. ZenVow Meditation Resort render mockup.

2.2 ZenVow Phase two

If phase one is successfully launched, a second phase will be deployed where ZenVow Meditation Resorts will be built in several cities around the world, where users can have access to clean water, biologic organic food, and shelter in exchange for ZenVow Coin or any equivalent value of any cryptocurrency in circulation.

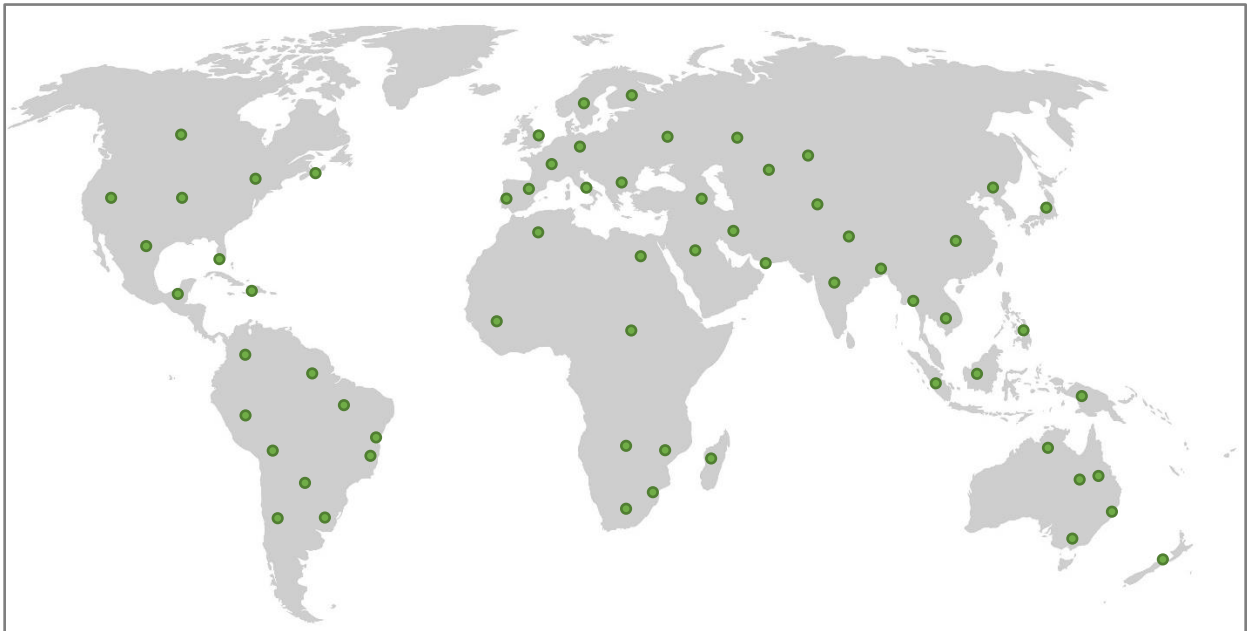


Figure 4. Phase two, worldwide ZenVow Meditation Resort deployment.

Big cities, have the densest population areas in the world, and they are populated mostly because of the financial reward system. This environment is noisy, pollution prone, loaded with cheap unhealthy fast food, and overall negative environment for human health.

We need to create a cleaner and healthier atmosphere in order to settle the ZenVow users and most importantly a sustainable one.

For phase two to be successfully deployed it will be necessary to launch several coins and ICO's in order to allow the physical construction of the resorts all over the world.

The new coins will be used to reward users for all activities that can be monitored, such as gardening, farming, cooking, cleaning and other activities. These activities will also be rewarded using the existing ZenVow software stack, described in more detail in chapter 6.

The objective of the ZenVow Meditation resorts is to allow for the creation of a new sustainable alternative to the unsustainable economy we have today. The new reward system is based on the principal of rewarding scientifically proven healthy human activities in order to maximize the quality of human life, without paying the heavy price of the undesired externalities such as pollution, fauna and flora extinction, public health costs, among many others.

The ZenVow Meditation resorts will be managed using permaculture techniques. Permaculture is an innovative framework for creating sustainable ways of living as well as a practical method for developing ecologically harmonious, efficient and productive systems that can be used by anyone, anywhere.

ZenVow users receiving rewards inside the resort will receive a special bonus, to be payed to the resort in order to be used for extra expenses such as, maintenance costs, agricultural costs and energy costs and so on.

In an initial phase, users of the meditation resorts will only be allowed temporary access to the resorts in periods no longer than 30 days, in order to allow access to other users that will be on the waiting list. Depending on the number vacancies and waiting list size, this 30 day period can be extended to 45 or 60 days.

The resorts can be opened in any location, and will work as a free franchise, as long as they follow the basic moral and ethical guidelines of the concept.

Table 1 shows a list of activities that will be available in the ZenVow meditation resorts.

Personal Activities	Social Activities
Pranayama Practice (Breathing exercises)	Cooking and Eating
Yoga Practice	Gardening
Meditation practice	Cleaning
Other practices to be included	Other activities to be included

Table 1. ZenVow meditation resort activities

The following table describes just a few examples of the differences from both reward systems:

Inherited Financial reward System	ZenVow Reward System
Stressful lifestyle	Less stressful lifestyle
Selfishness and greed	Selflessness and Altruism
War and conflict	Peace and resolution
Personal Property driven	Personal Access driven
Ego driven	Oneness
Exploitation driven	Sustainability driven

Table 2. ZenVow reward system - advantages and disadvantages

Table 3 shows social and ecological impacts of both systems side by side. The differences are speculative, because they are theoretical probabilities, the real differences can only be evident after the deployment of the new system and then analyzing the results.

	Inherited Financial Reward System	<u>ZenVow Reward System</u>
Social impact	<ul style="list-style-type: none"> - Poverty and inequality - Public health issues relate to stress and anxiety - War and conflict 	<ul style="list-style-type: none"> - Reduction in inequality and poverty - Reduction in public health issues - Reduction in war and conflict
Ecological impact	<ul style="list-style-type: none"> - Fauna and flora extinction - Over exploitation of natural resources for personal profit - Pollution 	<ul style="list-style-type: none"> - Sustainable resource management - Reduction in pollution - Reduction resource exploitation

Table 3. ZenVow reward system – Social and Ecological impacts

3. Design Approach

The design of the system is thought out around scientifically proven health benefits of breathing, meditation and Yoga practice. The system is composed by a digital and physical stack.

The physical stack of the system is composed by the ZenVow meditation pad and ZenVow sensor. Both designed in a way to create an interactive experience that will motivate users and engage them in long term practice in order to reap the most health benefits.

The ZenVow app and ZenVow Decentralized server are part of the digital stack of the system that will be described in better detail in the following chapters.

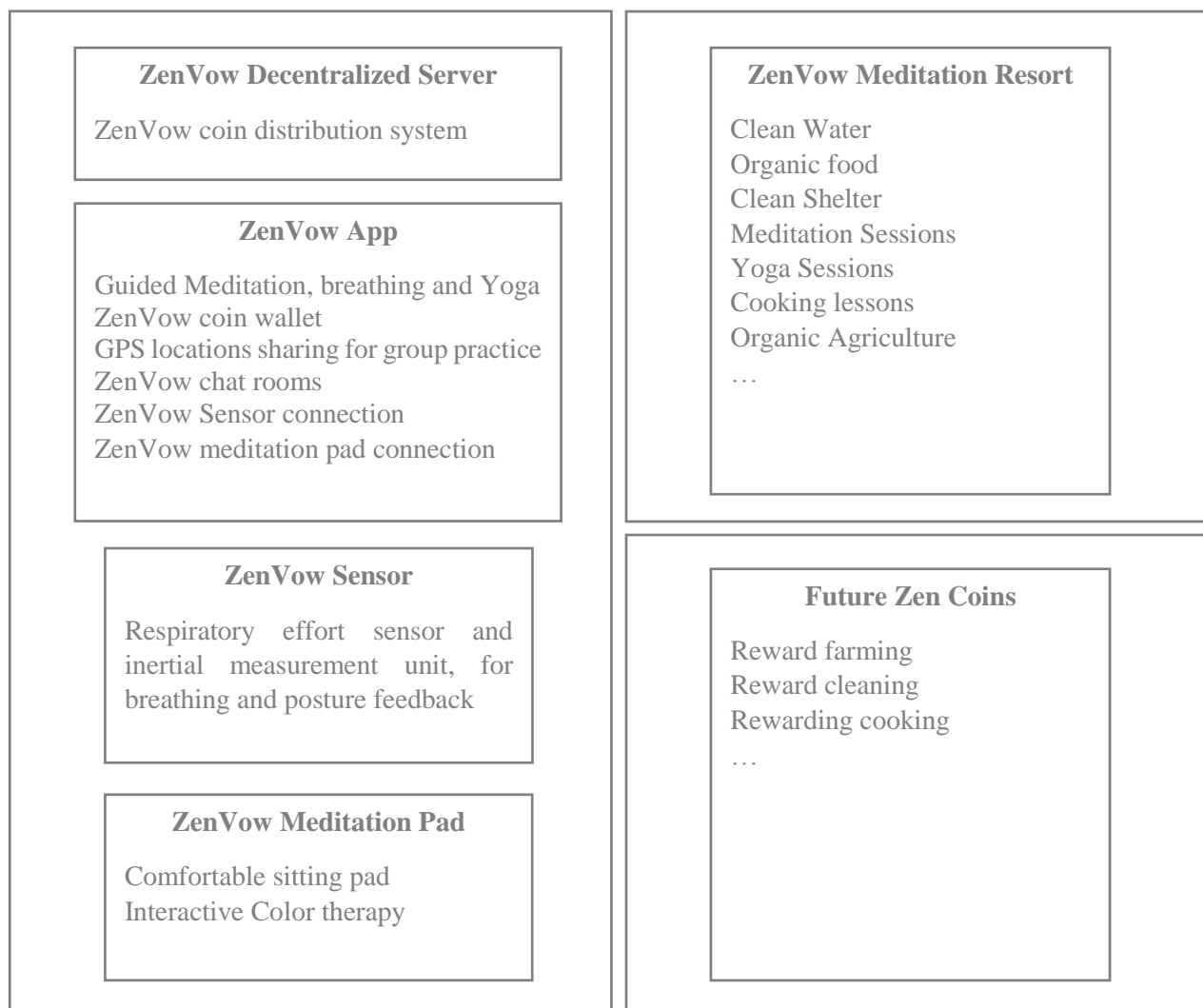


Figure 5. ZenVow System

The ZenVow Coin distribution will be running on an open source decentralized Blockchain service, and all updates on the code will be open source.

4. ZenVow Sensor

The ZenVow Sensor has two main characteristics, it is composed by a Respiratory Effort Sensor and a body posture sensor. The sensors are capable of detecting expansion and contraction of the chest/stomach and also detects the user's posture using an inertial measurement unit. The user can attach the strap in two different locations, on the chest or on the stomach. The sensor can connect to any smartphone device via wireless Bluetooth link.



Figure 6. ZenVow Sensor in breathing mode

The ZenVow Sensor relays real-time biometric data from the user's respiratory efforts as well as the XYZ vectors back to the app, this data is then used to create interactive color and sound therapy in order to generate a relaxed state of mind. The strap is one size fits all and very comfortable and compact. The data from the sensor is used as one of several metrics to validate if the user participated in a breathing, meditation or Yoga session in order to receive the ZenVow Coins as rewards.

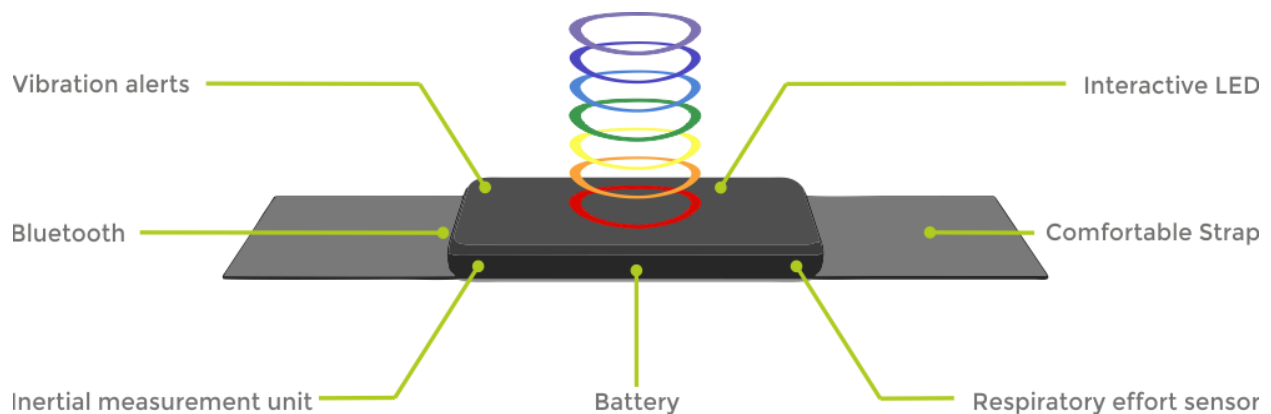


Figure 8. ZenVow sensor technology

4.1 Breathing validation system

The breathing validating system detects if a user is inhaling and exhaling via the upper chest area or the lower stomach area.

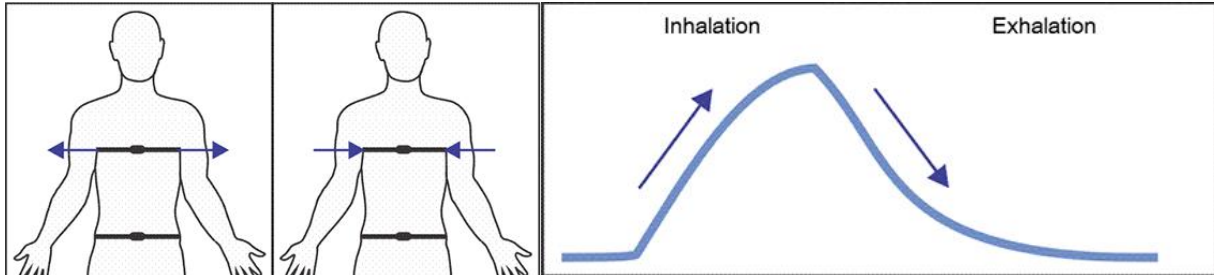


Figure 8. ZenVow Sensor signal simulation

4.2 Meditation validation system

Before each guided meditation session the users start off with a breathing exercise, so the system validates the breathing exercise prior to the guided meditation session. After this phase the data coming from the inertial measurement Unit ensures that the user is not moving abruptly. Combining the data from the respiratory effort sensor and the inertial measurements unit, the system can validate a meditation session.

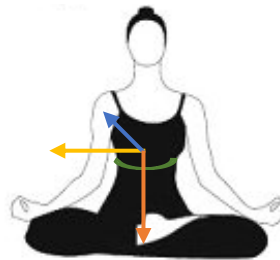


Figure 9. ZenVow Sensor in Meditation mode

4.3 Yoga Tracking Positioning system

The Inertial measurement unit measures and reports a body's specific force, angular rate, and the magnetic field surrounding the body, using a combination of accelerometers, gyroscopes and also magnetometers.

The Yoga tracking system works using the data from the inertial measurement unit and the respiratory effort sensor. The users start a guided Yoga session using a smartphone, after the session starts, the user mimics the guided Yoga positions, while the system verifies the data from the inertial measurement unit and the respiratory effort sensor.

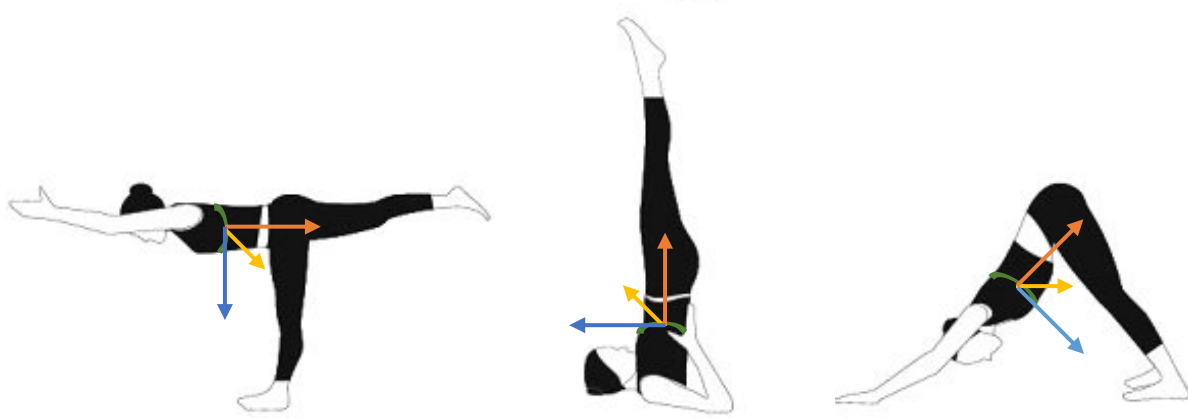


Figure 10. ZenVow Sensor in Yoga Mode simulation

With time the application will eventually be able to detect the user's progress, using the data collected from the ZenVow sensor.

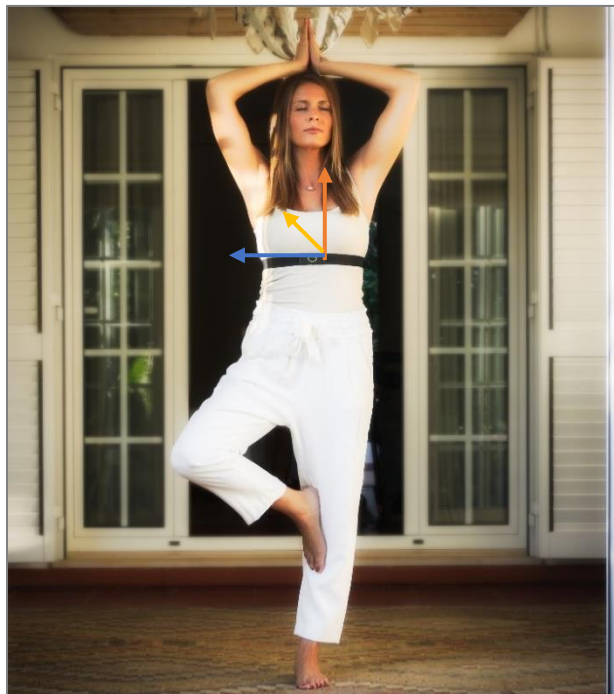


Figure 11. ZenVow Sensor in Position tracking Mode

5. ZenVow interactive meditation Pad

The ZenVow Meditation Pad is a smart interactive meditation pad, equipped with very bright LEDs for interactive Chromo therapy sessions [4]. The pad is also equipped with a proximity sensor that detects if the user is sitting on the pad or not.

Several scientific studies show that Color Therapy is a natural way to cure various ailments and is used all around the world as non-conventional medicine [4].

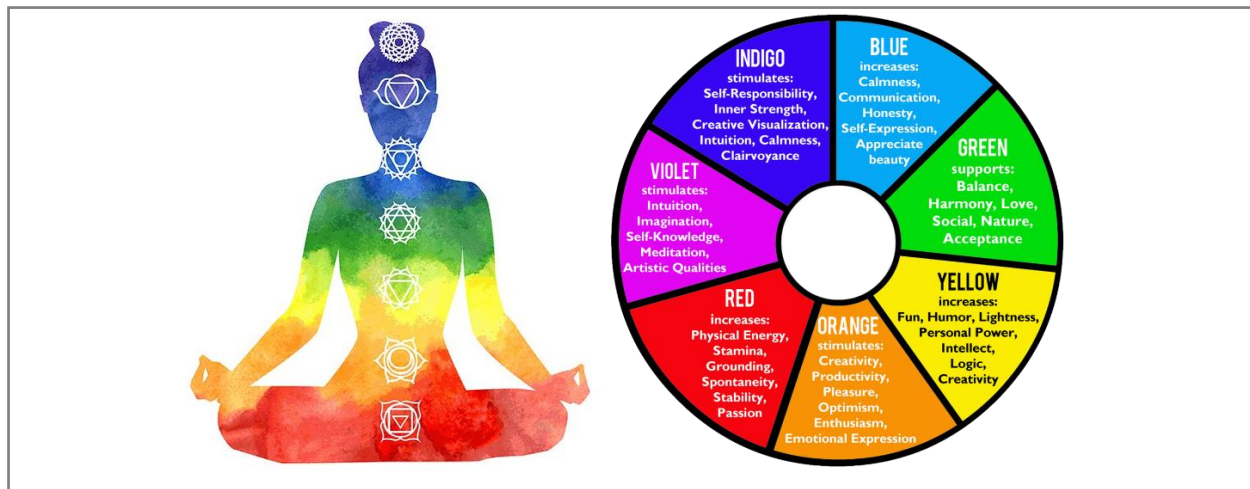


Figure 12. Color Therapy

The interactive ZenVow meditation Pad is equipped with all visible light spectrum range with 16.8 Million possible colors. These colors are used to create a relaxing and peaceful atmosphere that will help create a peaceful state of mind, necessary for an effective guided meditation session.



Figure 13. ZenVow Meditation Pads

The color and brightness of the ZenVow meditation Pad varies according to the users breathing rhythm. This interactive experience creates a relaxing atmosphere and works as a pre meditation exercise.



Figure 14. ZenVow Meditation Pads

The ZenVow meditation pad and logo was designed using the mathematical golden ratio.

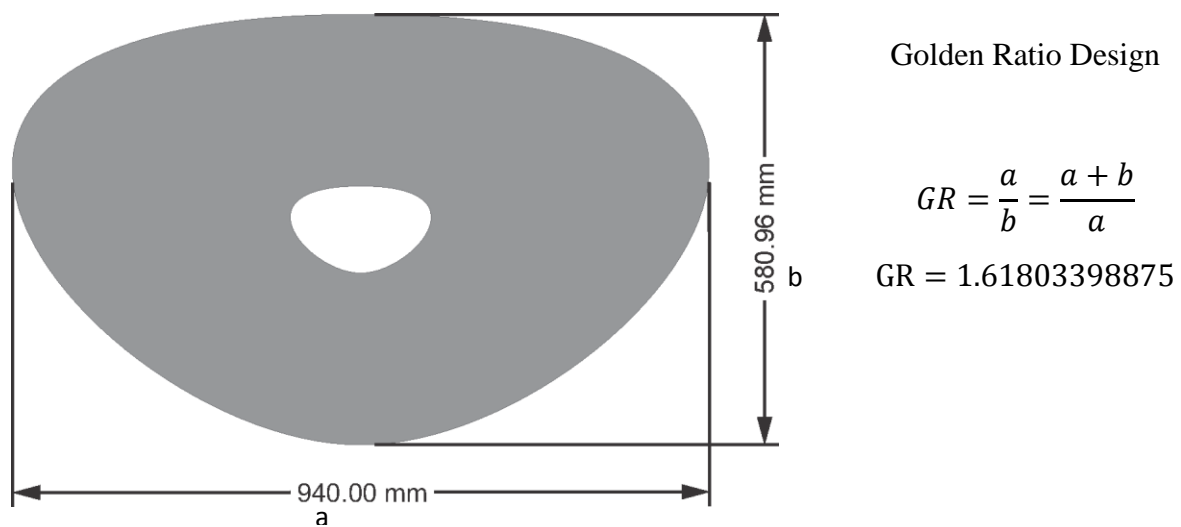


Figure 15. ZenVow golden ratio design

6. ZenVow Mobile App

The ZenVow Mobile App is a free cross platform application, running on Android and IOS. It is designed for users to connect to the ZenVow Sensor and the ZenVow meditation pad. The app has built in breathing, meditation and yoga sessions organized in classes. Each class starts off with an interactive breathing exercise followed by a guided meditation or yoga sessions.

The app also manages user's meditation and breathing session's progress during time.

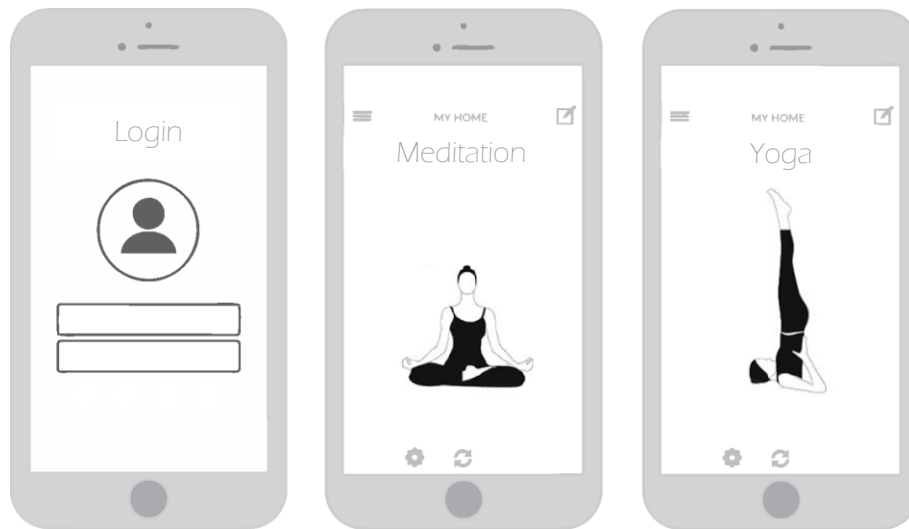


Figure 16. ZenVow Application mockup

Built into the app is a digital wallet that lets users receive and spend their ZenVow Coins rewards.

6.1 ZenVow application Wallet

The ZenVow's digital wallet application will have the following built in features:

- Private keys are protected by digital password.
- Security check for private keys.
- Automatic backup and recovery.
- You can easily monitor your ZenVow savings
- Real-time price of major ZenVow Exchanges.
- System notification for new transactions.
- 2FA via phone/sms/e-mail



7. ZenVow Coins rewards

The ZenVow Coins are based on Decentralized Ledger Block-Chain Technology in order to generate and distribute Peer-to-Peer Electronic rewards. These coins will be given to users that spend time on breathing, meditation and Yoga practice using the ZenVow sensor and meditation pad.

7.1 Value proposition

The ZenVow movement aspires to help enable the liberation of humans from the financial oppression system. The goal of the system is to offer the users an alternative source of income to their normal source of income, by motivating physical and mental exercise.

The time spent on breathing, meditation and Yoga exercises, tends to bring out peace and compassion among practitioners, awakening the mind and illuminating the heart. Time spent on any activity that generates these kinds of results, should be financially rewarded. On the other hand, time spent on activities that have negative impacts on the socio-ecological systems should not be rewarded, because of the extremely elevated costs of the undesired externalities such as pollution, fauna and flora extinction, public health costs among many others.

7.2 ZenVow Coin Total number supply

The Coin distribution through time has been designed to increase in value, because of gradual reduction in coin supply.

The total number of ZenVow Coin supply will be set at 333 million. These Coins will be Ethereum based on ERC20 Token Standard [9].

7.3 ZenVow Coin Design

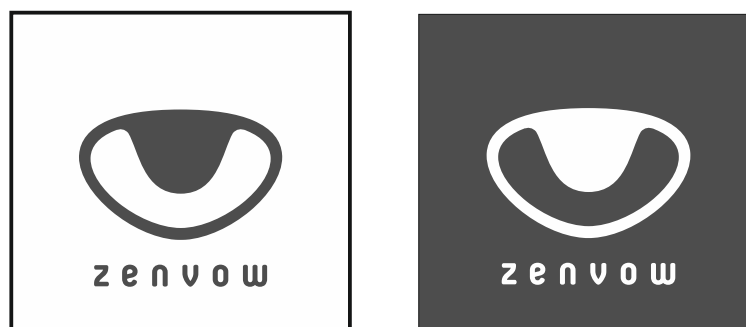


Figure 17. ZenVow Coin design

7.4 ZenVow Coin allocation

In order to support the project a crowdfunding campaign will be launched on Indiegogo, as well as an ICO (Initial coin offering). The following list shows the allocation of the Coins:

- ICO sale – 30 Million zenvow coin
 - 10 Million zenvow coin - 1750 Coins for 1 ETH (7 day sale)
 - 10 Million zenvow coin - 1500 Coins for 1 ETH (7 day sale)
 - 10 Million zenvow coin - 1250 Coins for 1 ETH (7 day sale)

Any leftover Coins from the ICO will be reserved for future ICOs, air drops and bonuses for all initial coin investors.

3 Million ZenVow Coins will be used by the ZenVow Company for Management purposes such as, exchange fees, marketing, licenses etc.

The remaining 300.000.000 ZenVow Coins will be handed out using the reward system to all users who will be using the ZenVow products. The distribution of the 300 million coins will be made in a way that the coins will be given out in a time span of 100 years.

$$\text{Total rewarding Supply} = \sum_{i=0}^{24} \frac{\text{Total Supply}}{2^{(i+1)}}$$

$$\text{Total reward Supply} = 300.000.000$$

Equation 1. ZenVow coin total supply distribution for 25 halving's

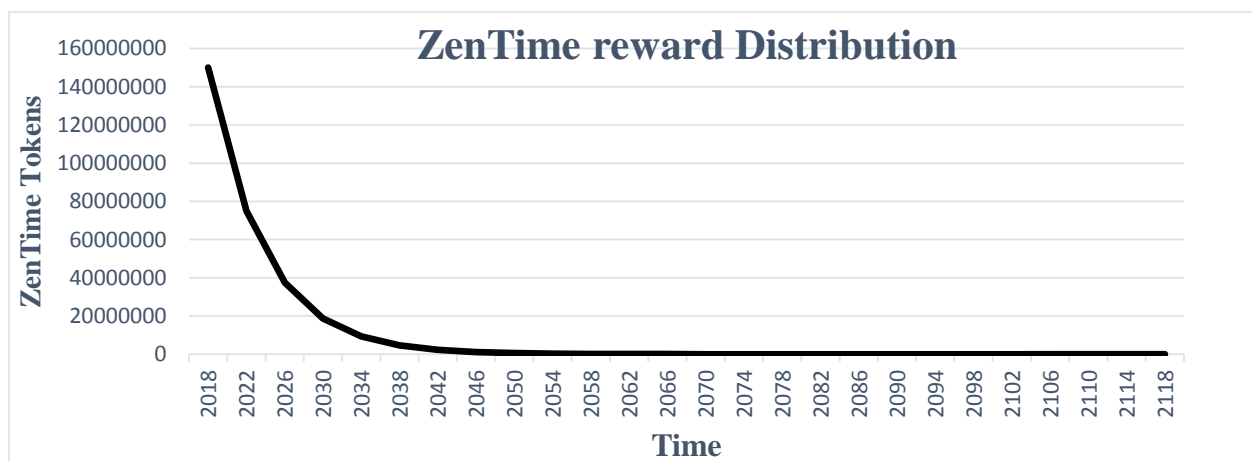


Figure 17. Proposed ZenVow Coins distribution for 100 years, may suffer improvements

7.5 ZenVow Coin Reward Distribution

After users finish breathing, meditation and Yoga sessions, the system will validate the session using several metrics, personal user account, phone number, biometric respiratory effort data from the ZenVow sensor, position data from the Inertial measurement unit and the proximity sensor from the ZenVow meditation pad. If the user's sessions are validated the system will reward them with ZenVow Coins.

ZenVow Coins will be given out in daily batches, the amount that each user receives is determined by the number of total users with a valid session divided by a fixed number of daily Coins that the systems grants per day according to the overall Coin distribution.

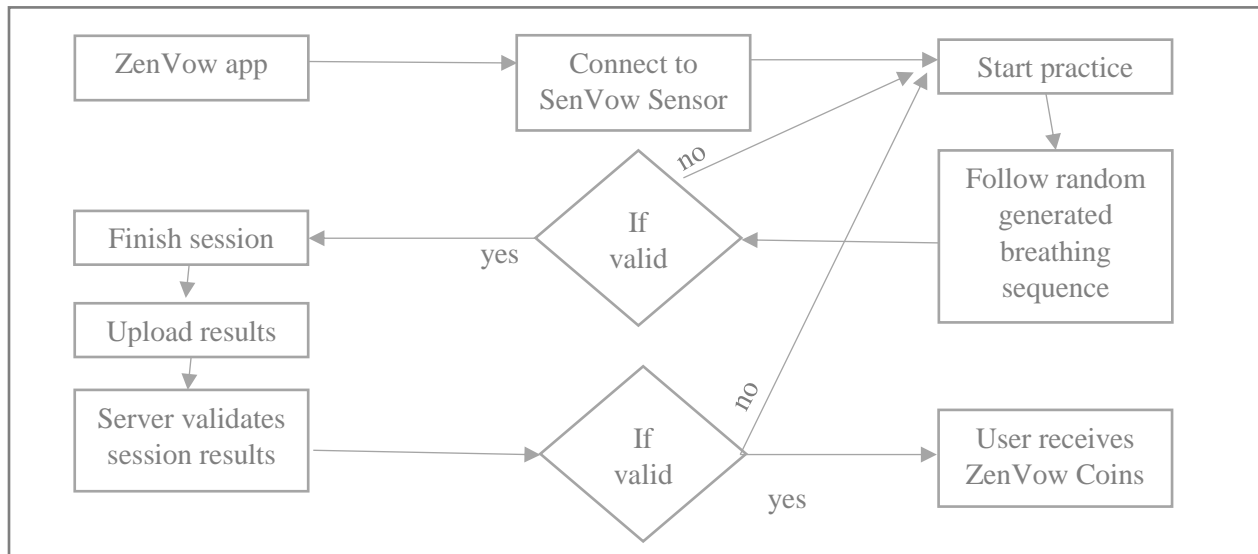


Figure 18. Reward validation sample

The distribution of Coins will be awarded according to the activity/session that was practiced in that given day.

The system will reward user that use the application at least 2 times a day, preferably 1 or 2 hours maximum spent on the sessions. The app will be capable of connecting people who want to meditate together, in group practice the ZenVow Coins rewards go up in proportion to the size of the group. In table 1 we show possible weight reward in ZenVow Coins for each practice.

	Breathing Practice	Meditation Practice	Yoga practice
1 Person	5%	55%	40%
Group of people	5% + 1% bonus	55% + 5% bonus	40% + 5% bonus
ZenVow resort	5% + 131%	5% + 333%	5% + 313%

Table 1 - ZenVow Coin Reward Distribution

The application will have a built in wallet for the users to receive and send their ZenVow Coins. The Coins will be sent to the user wallet every 24 hours after approval.

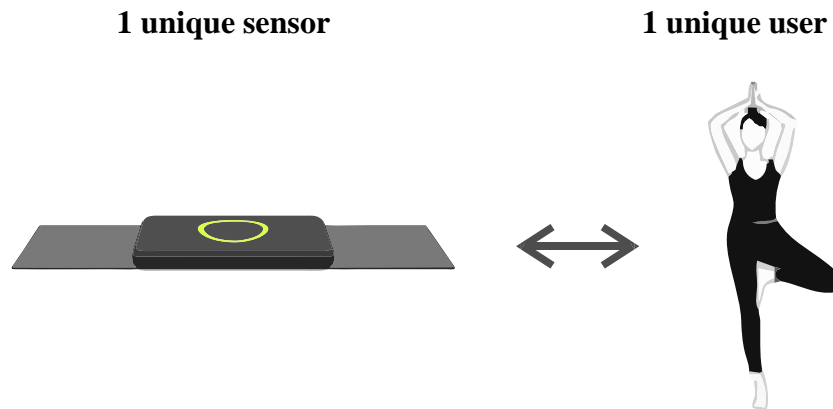
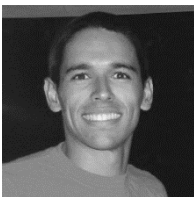


Figure 20. Unique id inside each zenvow sensor.

7.6 ZenVow Coins ICO Sale Period

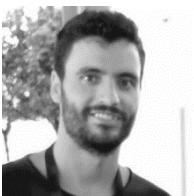
Initial coin offering will begin April 23th 2018 where 30.000.000 ZenVow Coins will be available for purchase. The sale will be hosted here: www.myzenvow.com

8. Team and advisors



Aldric T. Négrier

Founder of the ZenVow Project. Has a Master's degree in Electronics and Telecommunications Engineering, extremely passionate Blockchain altruist and open source advocate. Believes mankind needs to stand still to achieve higher consciousness in order to be truly civilized and peacefully. Passionate theoretical Buddhist, has decided to take a vow to dedicate his life to zazen and yoga, and allow others to do the same.



Luis Carlos

Has a Master's Degree in Electrical and Electronic Engineering, passionate maker, Computer Vision programmer, electronics expert, 3D printing, and much more. Strong believer that technology and innovation can be a force for good.



Ricardo Alves

Very passionate Software developer, has a Master's Degree in Electrical and Electronic Engineering.



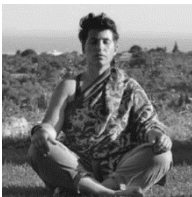
Sergio Silva

Has a Degree in Computer and System Engineering, more directly in the field of System Administrator, Project Management, system integrator and programmer. He also works in IOT and artificial intelligence apply to energy efficiency.



Guilherme Weishar

Permaculture Designer, will be developing self-regulating systems that provide food for the ZenVow Meditation Resorts and integrate the Permaculture mindset in the educational component of the project.



Renata Cortês

Graduated in Exercise and Health from the Faculty of Human Motricity. Has a TDI Certificate from Instructor in the Mindfulness Based Stress Reduction Program created by Dr. Jon Kabat Zinn in 1979.



Hélder Simões Duarte

Master in Electronics and Telecommunications Engineering with a passion in developing embedded electronic circuits.



Inês Gago Rodrigues

Ines has a PHd in Molecular Biology and Gene Regulation, and is a certified Yoga Teacher/Practitioner.



Pritpal Singh

Talented Vegan Chef, with expertise in vegetarian Indian cuisine. Will be working on preparing healthy organic menus for all ZenVow meditation resort visitors.



Prof. Dr. Jean-Christophe Giger

Doctor of Psychology (Ph.D.) In Social Psychology with honors

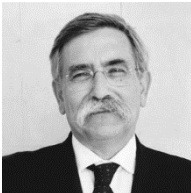


Dominic Santos

Blockchain developer

Self-taught Blockchain developer and very talented Software developer

8.1 Advisors



Prof. Dr. João Pinto Guerreiro

Former Dean of the University of Algarve in Portugal.

Member of the National Council for Environment and Sustainable Development 2007 in Portugal



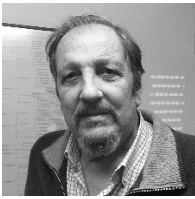
Prof. Dr. António Ruano

Professor of Control Systems at the University of Algarve, Computational Intelligence, Intelligent Control and Instrumentation/modeling, Artificial intelligence.



Rui Graça e Costa

Phd in Civil Engineering. A Civil Engineer since 1992, with professional background in planning building structures and urban infrastructures. The use of recycled materials and the design of reusable structural components is a preferential field of investigation.

**Francisco da Cunha Leão**

A Senior Architect at ARS Arquitectos, with large experience in urban planning with coordination with landscape design. He is specialized in the development of site friendly urban areas and their interaction with human utilization together with their environmental integration.

9. Acknowledgements

The ZenVow project is inspired by a variety of very different philosophies and personalities, and would have not been possible without their insight, this list mentions just a few:

Kuan Yin, East Asian bodhisattva

Adjan Brahm, Buddhist Society of Western Australia

Dalai Lama, spiritual leader of the Tibetan people

Osho, Acharya Rajneesh.

Satoshi Nakamoto, Peer-to-peer Electronic Cash System

Peter Joseph, and his inspirational work ‘The New Human Rights Movement: Reinventing the Economy to End Oppression

Jacque Fresco and Roxanne Meadows from the Venus project

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