# Aergo Billboards

This White Paper aims to explain the marketing plan and technical development of this social DApp.

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## Preamble

The world and people are more and more virtual every day, this is a fact. It's time to decentralize the billboards (also known as outdoors).

For that, Aergo Billboards was created, it is a smart contract and a web interface (DApp), independent, without governance, self-adaptive, which aims to common people advertise billboards in places around the world and attract interested people to view.

The Aergo Billboards is completely open source, hosted on github, built on the platform of the wonderful Aergo ecosystem.

What is a billboard?

According to Wikipedia:

*A billboard (also called a hoarding in the UK and many other parts of the world) is a large outdoor advertising structure (a billing board), typically found in high-traffic areas such as alongside busy roads. Billboards present large advertisements to passing pedestrians and drivers. Typically showing witty slogans and distinctive visuals, billboards are highly visible in the top designated market areas.*

*Wikimedia Commons*

With this reference, we can summarize, it is a large billboard located in places where there is considerable visualization by people.

In order to transport this concept to the virtual world, we need to create a way in which people want to open billboards in different places and these places have a great visitation. Focusing on that, let's answer some questions...

**Q:** Why would people want to open a billboard?
**A:** Show everyone your product, brand, service, social network, himself.

**Q:** Why would other people view these billboards?
**A:** Considering that we are in a decentralized world without governance, the best way to generate views is to distribute cash coupons.

**Q:** Where would these cash coupons come from?
**A:** They would come from advertisers, who opened their billboard. Remember billboard means “billing board”.

**Q:** Why would an advertiser use this DApp instead of other services?
**A:** It's cheap, the ad will be visible forever, a purely decentralized service, without taxes, fair and adjustable price by the free market and the main factor: people interested in the cash coupon must "access and pay attention" on the billboard to get them (best possible engagement).

**Q:** If we are in a world without governance, who would control the advertised content? How to avoid ads of inappropriate content?
**A:** We would leave this role to the responsibility of large companies that have consolidated social networks around the world.

**Q:** How to avoid visual pollution?
**A:** Allowing people to place their billboard anywhere on the globe.

**Q:** If it is a decentralized system, how to avoid harvesting robots?
**A:** Through a system similar to a CAPTCHA, but in a decentralized manner and requiring people interested in the cash coupon to access and pay attention to the advertisement.

**Q:** Is it possible to do this with a DApp?
**A:** Yes. I will demonstrate how in the next pages...

## The Smart Contract

A reasonably small code in Lua, written in order to avoid unnecessary processing and memory costs in the Aergo environment.

The contract is purely decentralized, that is, it has no governance from the creator. The contract creator receives no commission. The contract is adapted to the current price of Aergo due to the free market (demand and supply).

The contract does not accept "fee delegation" for two reasons: 1. Avoiding brute force attacks on cash coupons; 2. Since the contract is without governance, it is meant to be independent.

Available on GitHub. MIT license.

## The Web Interface

A unique web page, which uses free javascript libraries from various authors and the wonderful OpenStreetMaps service.

The page will incorporate Instagram posts, videos and YouTube channels, and media from other Social Networks that may be implemented in the future.

The page communicates with the contract through the AergoConnect extension. However, it can be adapted for direct communication with any Aergo node.

It is a front-end page, does not require back-end codes on the server, but as it uses third-party services (OpenStreetMaps, Instagram, Youtube, Facebook, ...) it cannot be run on localhost, it must be hosted in a remote server for a full functioning.

Available on GitHub. MIT license.

New pages soon...