

# VAWT LAMP POST

Null Ohm presents a design by Stig Skjelvik

RESPONDENT ELEMENTS

*null ohm*  
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ELECTRONICS HARD TO RESIST

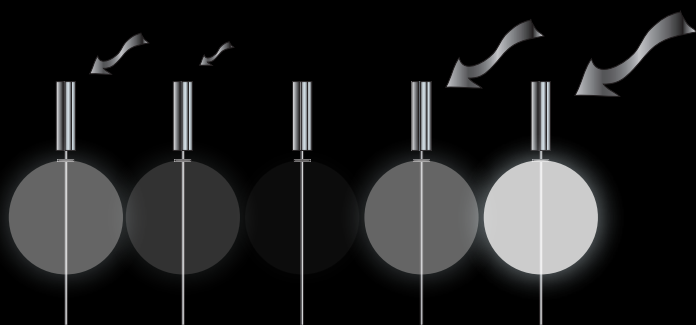


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## What is a Vertical Axis Wind Turbines and Savonius ?

- Robust in case of strong winds.
- Suited for turbulent wind, typical for areas with buildings and curved landscapes
- Robust in snow and icing conditions. No breaking system are needed in case of strong winds. Blade speed are proportional with wind speed.
- Slower speed of blades means less stress who may lead to malfunction
- Silent design. Noise from generator is equal to the sound level from the wind.
- 80 years usage in ventilator design in buildings and ships is proven, -and design is familiar among the public
- Symmetric design is more discrete and suited for this usage
- They are less effective than propeller style (HAWT), but is less demanding in mechanics and materials, leading to lower costs P.R. watt-hour in small generators.
- Up scaling the design to harvest larger amounts of energy is done in the vertical direction, the height of the turbine requiring no more space than the smallest model.
- The Savonius is one of the classic designs. Our design is made with a "little twist" who gives a intriguing shape as well as rigidity and helps giving a smooth spinning torque.



*The basic model is simply described a wind generator and a LED lamp.  
No batteries or grid connection makes it producing light only when wind blows.*

*A large group of units spread over a large area  
will have light intensity according to the wind gusts and wind speed.*

*Amplifying the living landscape and the nature experience  
by making the invisible air masses visible.*

In cooperation with landscape architects, the Respondent Vawt Lamp could lead to artistic installations in landscapes suited for wind generated power in low heights, coast lines and other windy sites.

The basic model has such a low production cost due to its simplicity, that its realistic to foresee installations counting groups of dozens in a scenic landscape.

The light is directly respondant to the movement of air masses and will visualize the invisible- Amplifying the human experience of nature, landscapes and elements.

The ecological footprint being minimal, and all reversible since no cables, ditches or heavy machinery are needed for installation and removal.

The installations will function as public relations on the themes on sustainable energy, wind-power and green technology.

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## Contact

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*What about using it as a useful task light, - a lamp post? I would like to have one of these, and don't have "a scenic landscape" at hand, but I would love to reduce some energy consumption in a world of energy and climate troubles...*

Yes -we would also like to develop a system who stores the energy harvested, and deploy it as useful light when needed. Cutting costs are essential when it comes to *Return of Investment* and *Return of Energy Investment* in relation to renewable energy and needs a lot of testing and optimization. But we are not able to provide this yet, and the respondent narrative model must be in orders of minimum three items in a group for artistic usage. Right now we are looking for the right projects for the design together with the narrative function.

Our task is to create a minimalist design both for esthetic reasons as well as in a cradle to cradle design philosophy. By using aluminium who has the highest recycle grade globally, and a robust and simple design suited for repairs.

These lamps are *handmade*, *We only produce on demand...* So Please contact us with any inquiries. If you have the right project, we may speed up the development of the battery model.

*Used as a off-grid light system saving costs on energy as well as cable ditches, electrician work etc.*

*Just as useful in the remote location as in the windy location of cities like parks, harbours or large open spaces.*



# null ohm

ELECTRONICS HARD TO RESIST

Working in the field often termed Physical Computing in combination with traditional industrial design.

Located in Oslo, Norway a nation who has been described as having a strong fascination for light due to the dark winters with the Aurora as well as the midnight sun.

Our goal is to create fusions between architecture, design, and art,- into innovative and inspiring surroundings and objects.

## III PRODUCTS

### Respondent Elements

#### DOBPLER

A light system with the Light Emitting Diode's great energy saving potential with the added savings made possible by "light on demand" functionality.

Not as a primitive on/off experience, but gradually and smooth, increasing the amount of lights exactly to the amount of people, their movements and speed.

The result is not only maximum energy efficiency, robust and less demanding in regards of maintenance, costs etc. Its a artistic experience of play and fun into the public space, with the bonus of creating the experience of a safer local environment.

#### RESONANCE

A respondent LED light fixture with light on demand functionality and a inspiring story of interaction that creates safety in public space. Simple to mount, robust and with a impressive light output.

## III SERVICES

We work for a number of clients creating interactive systems focusing on the human interaction. Mostly with light and kinetics, but also projects with advanced RF systems combined with internet solutions and Graphical Interfaces.

The LED lamp has been our favorite "construction material" for more than seven years. We cooperate with a large base of suppliers. Electronics in Asia. Metals, wood, polymers and glass in Norway. Together with our partners Prototyper AS we have the full capacity to create any interior or exterior, combining custom made electronics with craftsmanship.

*The lamp is designed as a flat cylinder providing the amount of light downwards to prevent unnecessary "light pollution" of the night sky.*

*A rim of ambient light provides visibility seen from above at a distance.*

*This rim may be provided in a number of colors.*