



YOUMAGINE

# MKIII 50 Watt 3d printable Wind Turbine

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Located at: <http://www.youmagine.com/designs/mkiii-50-watt-3d-printable-wind-turbine>

## Short description:

This fully functional wind turbine has been specifically design to be manufactured, assembled and operated at home with its unique 3d printable design.

## Description:

Support this project and 'TIP THE DESIGNER' the 3dPower Turbine is the culmination of 3 design iterations and many hundreds of hours & pounds worth of design, manufacture and testing. PayPal daniel.djd.davis@gmail.com This fully functional wind turbine has been specifically design to be manufactured, assembled and operated at home with its unique 3d printable design. The turbine is optimised to produce a peak power output of 50 Watt and start with windspeed as low as 5m/s making it ideal for domestic applications and battery charging. The turbine has been designed with a unique Passive Variable Pitch (PVP) design. The PVP maintains an optimum power output through control of the turbines rotational speed. Whilst optimising power output the PVP also protects the turbine from dangerous over speed conditions by limiting its maximum revolutions per minute in wind speeds greater than the design point. The turbine has been designed with flexibility and growth in mind with provisioning for a bigger generator and blade without alteration to the turbine architecture and major structural components generating more power for less investment in the future. The turbine components have been designed for Additive Layer Manufacturing (ALM) methods using PLA plastic and 95% of the components require no post processing as these parts do not require 'print supports' reducing material usage whilst improving the overall finish of the part. The turbines printed parts can be manufactured using less than 100 meters of plastic making the cost per watt of power extremely competitive. Product Liability Waiver This agreement releases '3dp' from all liability relating to injuries that may occur during the use of this Prototype Wind Turbine. By downloading the plans or purchasing in part or in full this Prototype you agree to hold '3dp' entirely free from any liability, including financial responsibility for injuries incurred. The user acknowledges the risk involved in operating a product of this type. These include but are not limited to the release of high-energy debris or electric shock. The buyer participates voluntarily, and accepts all risks. By downloading these plans you understood and agree to the above terms and conditions.

If you can, please use the online documentation found at <http://www.youmagine.com/designs/mkiii-50-watt-3d-printable-wind-turbine> because those may have been updated. Also, there you can interact and provide praise and/or feedback.