

# Concepts

- *Design & Build*
- *Structures & Mechanisms*
- *Alternative Energy*
- *Gears & Gear Ratios*
- *Circuits*
- *Wind Energy*

# Contents

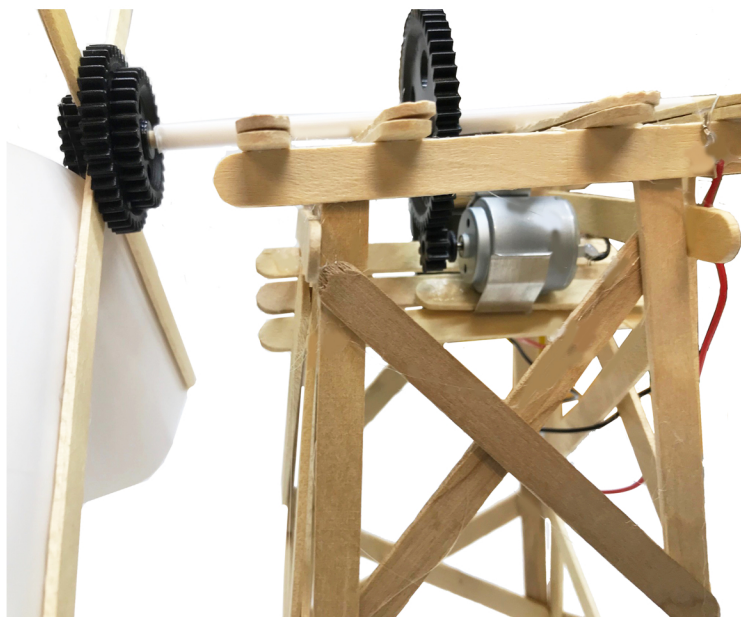
- 100 x popsicle sticks
- 1 x 118 mL craft glue
- 1 x high generator torque motor
- 1 x aluminum clip - motor holder
- 2 x LED lights (colours vary)
- 1 x mixed gear pack  
(Variety of teeth sizes + bushings)
- 1 ft of red stranded wire
- 1 ft of black stranded wire
- 2 x 4mm x 8" wooden dowel
- 1 x large 8" straw
- Strip of double sided foam tape

## Popsicle Stick Wind Turbine Tinker Kit

Cat# 83-54-WNTK



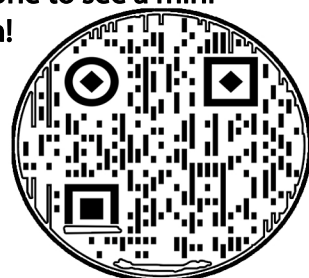
[www.kidder.ca](http://www.kidder.ca)



- With these materials/components you have everything you need to tinker with and design your very own working wind turbine!
- Wood glue included but hot glue gun is ideal to speed up cure time. Available at [kidder.ca](http://kidder.ca) or local dollar store.
- These pictures are only ideas of how your turbine can look! Experiment with different structural designs, blade shapes and lengths to optimize the output of your turbine.
- Ensure that the gear on your turbine blade and the one attached (using bushing) to your motor spindle are secure enough to allow both gears to flow freely.
- Strip the red & black wire on both ends using scissors and twist connect them to the DC motor and LED prongs.
- Use a volt meter (not included) to test the strength of your electric output! You can also test on other loads like a buzzer, DC motor or mini light bulbs also available at [kidder.ca](http://kidder.ca).
- Scan QR code below with your phone to see a mini popsicle stick wind turbine in action!
- Tweet your design to:



@kiddereducation



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