

Instructions to Create Your Own Wind Turbine

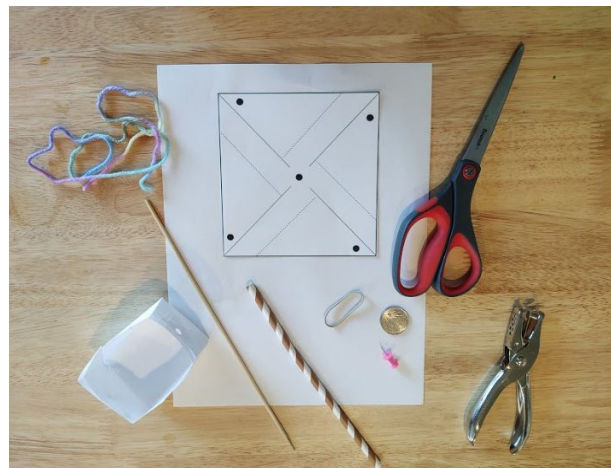
Introduction:

We are going to do a project that simulates how a wind turbine uses the power of the wind to make energy. In this project, the power of us blowing air or using a fan, will move the windmill which will then be capable of lifting an object! Please send us a picture of what you made!



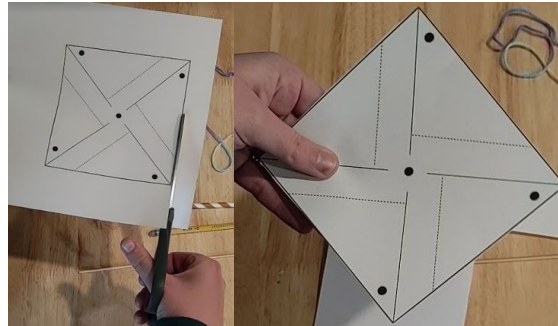
Materials:

- Windmill Template (on the last page)
- Thumbtack
- Pencil
- Hole Punch (optional)
- Rubber Band
- Small Paper Cup/Lightweight box that can hold a couple small items
- 12 inch piece of yarn
- Paper Straw
- Scissors
- Wooden Skewer
- Coins, or an object for the wind turbine to lift

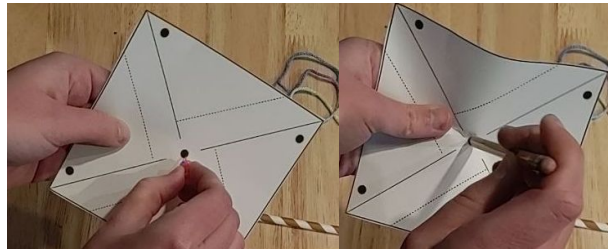


Procedure:

1. Cut the square out (just the thick black line) of the template (it is located on the last page of these instructions)



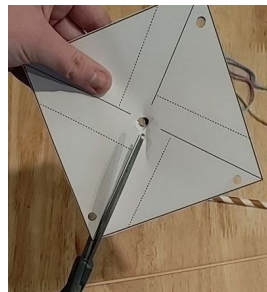
2. With the center black circle, use the thumbtack to poke a hole through the center, then stick the pencil through to widen the circle



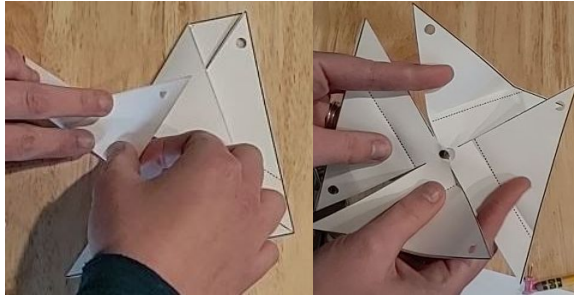
3. Use a hole punch to cut out the black circles on the corners of the template (alternatively you can do what you did for step 2 if you don't have a hole punch)



4. Then, cut along the solid lines



5. Fold each part along the dotted line



6. Push the straw through the center of the windmill, with about 2 inches of it coming out of the top



7. Fold each corner with a hole in it towards the center, and push it over the top of the straw



8. Fasten the rubber band to the top to secure the windmill onto the straw



9. Next, place the skewer through the straw. Be careful with the skewer! It might have a pointy end that could hurt you. You should be able to move the straw around the skewer so that the windmill moves.



10. Next, poke 2 holes like in the picture below onto your small paper cup/lightweight box



11. Pull your string through each hole and tie it to itself above the paper cup/box



12. Now wrap the other end of your string around the straw twice, then tie it to itself.



13. Place your small items into your bucket, and blow on your windmill! Or, you can even hold it in front of a fan to watch it lift the bucket! Try this project again with thicker paper and see if there is a difference!

