

# Spinning Christmas Tree

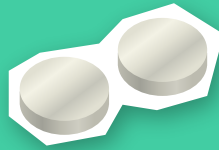
Turn a battery, copper wire, and magnet into a simple motor to spin a tiny Christmas tree!



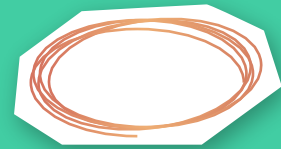
## ITEMS NEEDED



AA-sized battery



Button magnets



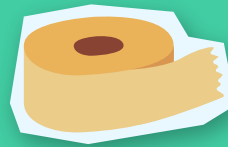
Copper wire



Pom poms



Glue



Tape



Beads



Scissors



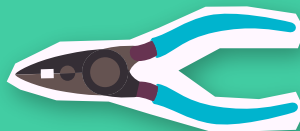
Crepe paper



Felt fabric sheets



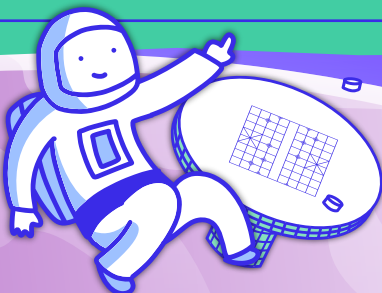
Crayons



Pliers/wire cutter



Stickers



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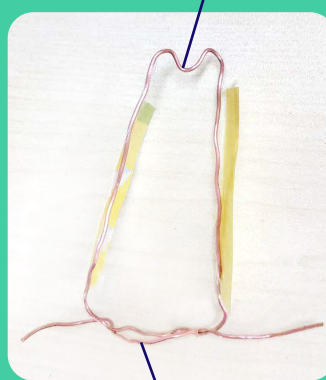
## INSTRUCTIONS

### Step 1 Make the "Christmas Tree"

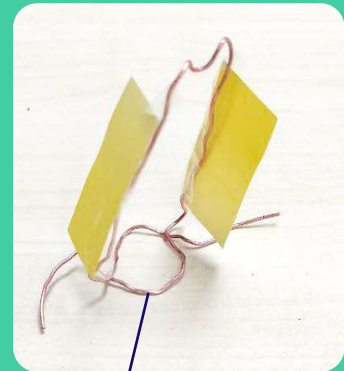
Cut a piece of copper wire (around 15cm) and bend it into a cone-shaped tree.

Form a pointed tip on top to touch the battery and a large circular loop at the bottom to fit the battery through.

pointed tip on top



circular loop



circular loop (top view)

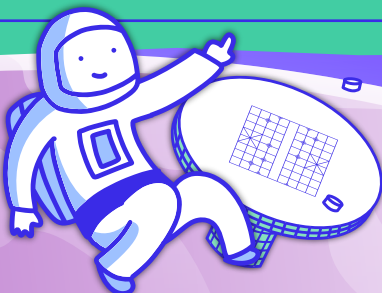
### Step 2 Decorate the "Christmas Tree"

Cut a decorative sheet (eg. felt or crepe paper) into a Christmas tree shape and tape it onto the top of the copper wire.

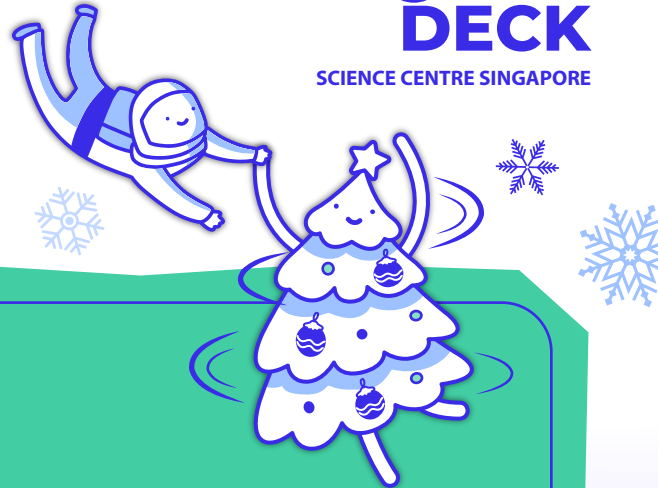
You can decorate it further with stickers or crayons to design your tree. Add some paper flaps on the sides to help it spin smoothly!



flap



# Spinning Christmas Tree



## INSTRUCTIONS

### Step 3 Assemble the Motor

Attach 6 magnets to the (-) end of the AA battery. Next, place your battery upright on a flat surface with the magnets at the bottom.

Carefully rest the pointed tip of the wire on the (+) end of the battery, with the circular loop touching the bottom of the magnets lightly.



top view



contact point with battery

bottom view



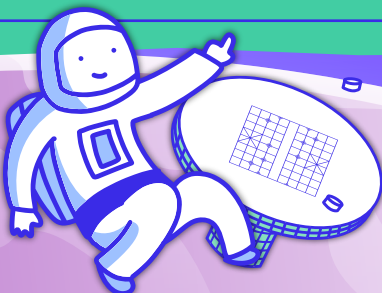
contact points with magnets

### Step 4 Test it out!

Release the wires and watch it spin! You've made your very own Spinning Christmas Tree, powered by a tiny electric motor!



Scan here to watch it spin!



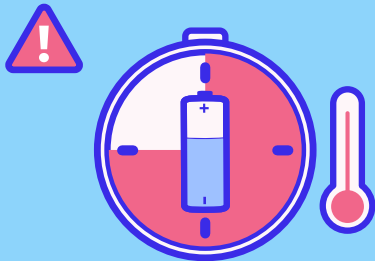
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## SAFETY TIPS



Always have adult supervision for your child during the build and play of the Spinning Christmas Tree.



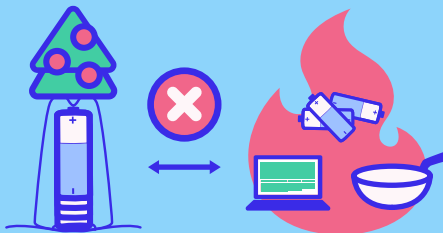
The wire and battery can get warm, so do not leave it running for too long.



Do not use insulated wires. Only bare wires will work.



Ensure that the entire structure is secured properly to prevent loose parts from detaching when spinning.



Avoid placing the structure near flammable items such as batteries, cooking stoves, and electronic devices.

