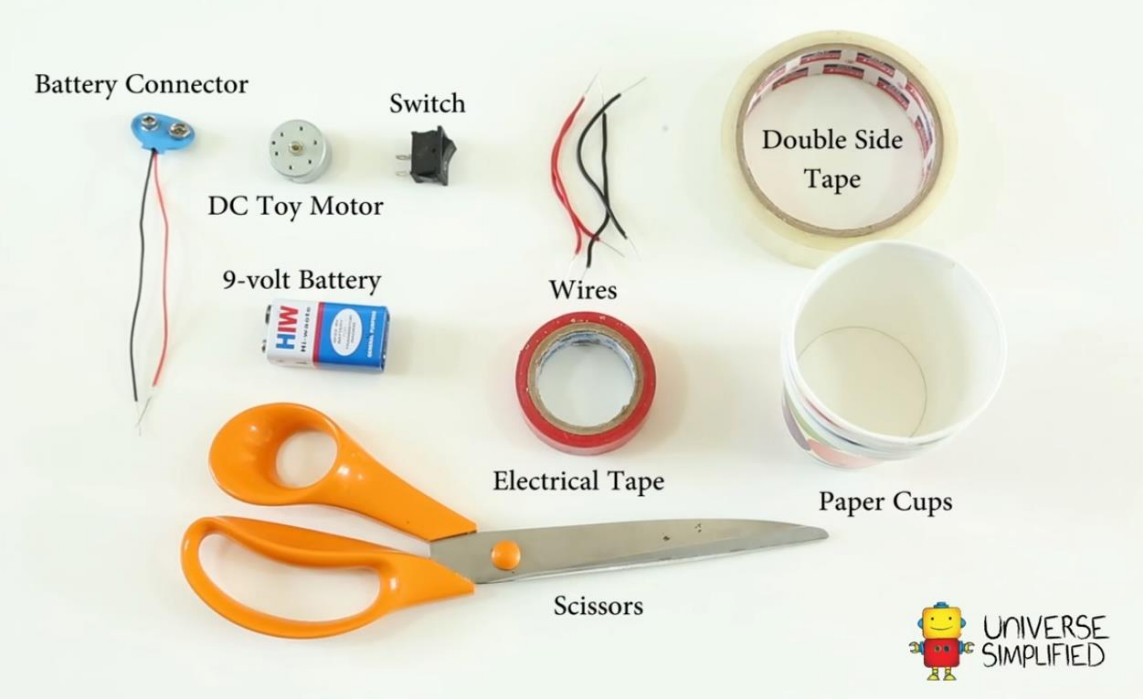
UNIVERSE SIMPLIFIED FOUNDATION

Empowering For Innovation

Newton's Boat



Material List

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Step 1:

For this particular design we shall use a piece of cardboard as the body of the boat supported by 4 paper cups below it. You can use whatever material is available to you - plastic bottles, paper plates, etc.

Step 2 - Making the Propeller:

Step 2A:

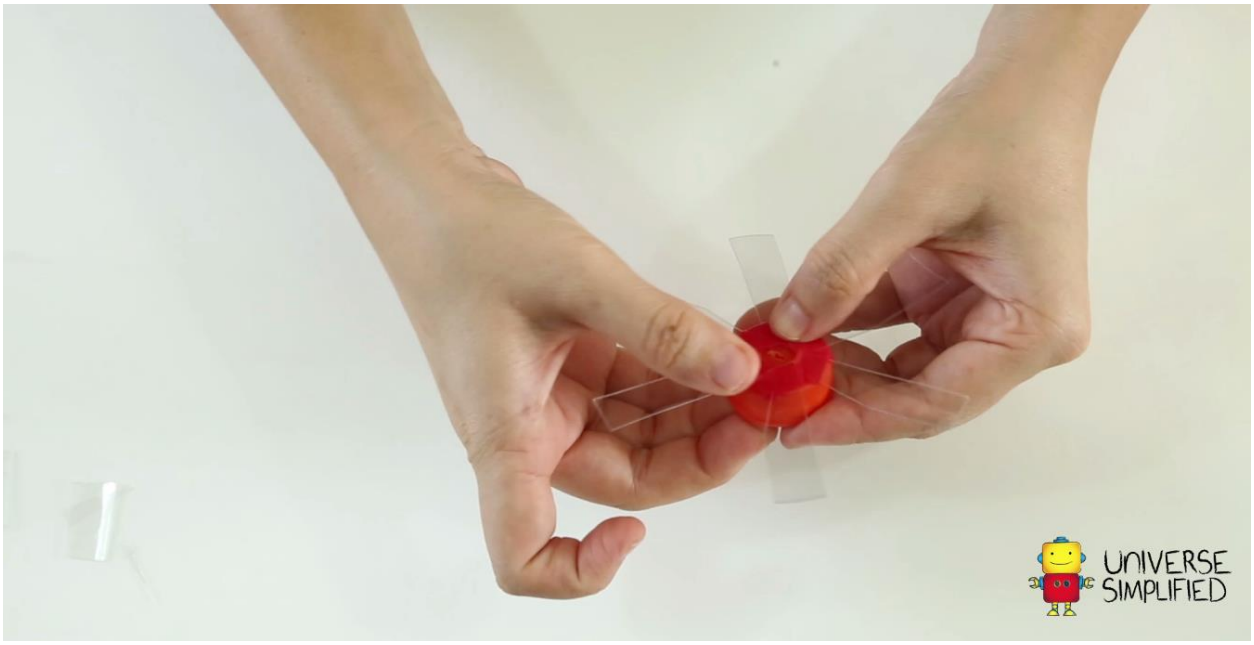
Take a PET bottle. Cut it in the center. According to the picture you need the unshaded part. You can use a cutter or scissors to cut the center.

Step 2B:

Step 2C:

Then cut this part into thin rectangular strips as shown above. Make these strips equal in size. Then a few millimeters from the corner of one base make an inclined cut in each one of them (like in the picture below). These are the arms of your boat's propeller. Use scissors for this.

Pic 5



Pic 6

Step 2D:

Take a bottle cap and make a hole at the center of it. The hole should be big enough to fit the axle of the DC toy motor tightly. You can heat the needle to make the hole in the cap or use a rounder or the scissor tip.

Step 2E:

Stick the strips you cut around the hole on the cap at equal distances. You can use fevikwik or tape for this.

Step 2F:

Check your propeller by attaching it to the motor and seeing if it fits properly. Make sure that the axle fits tightly on the propeller.

You can also use cardboard or any other material to make the propeller as per your choice.

Step 3:

Stick the opening end of two paper cups together as shown below.

Make one more such pair. Make sure the air from inside the paper cups won't escape. Stick both pairs together with a piece of double sided tape.

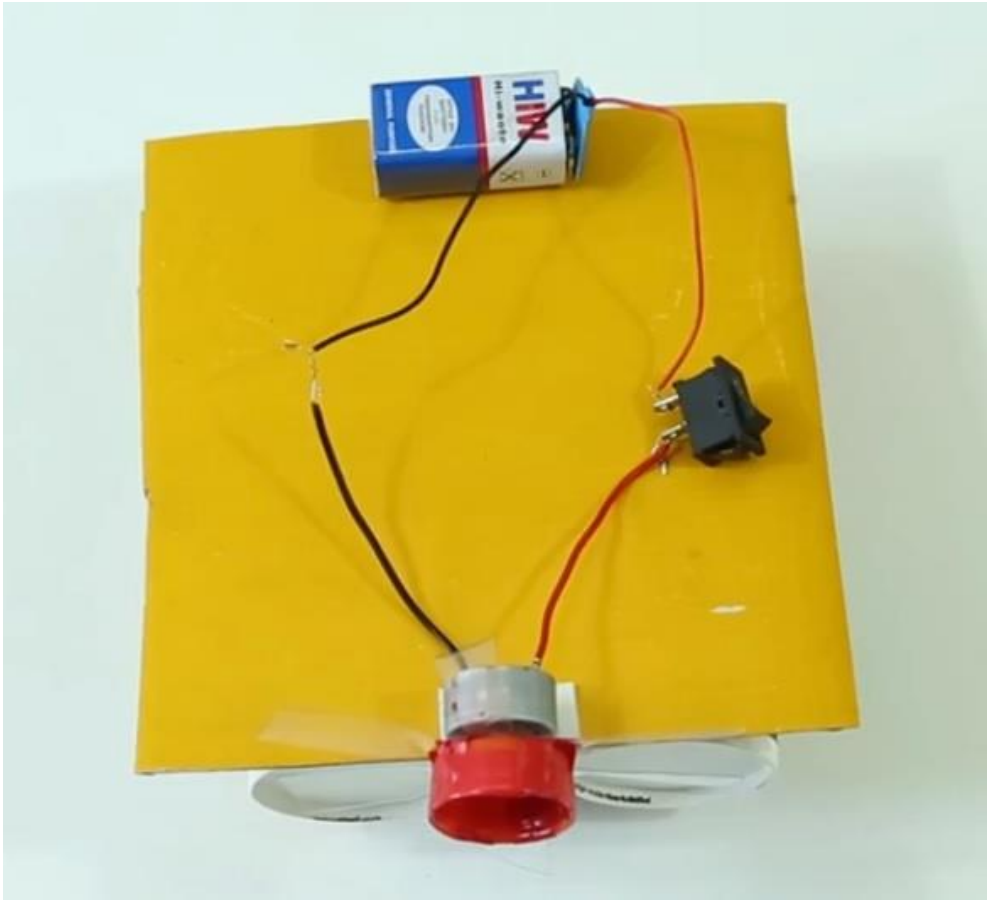
Step 4:

Stick long strips of double sided tape on top of each pair of paper cups and stick the piece of cardboard on top of it.

Cut the cardboard from the sides if you want a smaller boat.

Step 5:

Attach the motor (along with the propeller) and the battery on top of the boat with double sided tape. Connect the battery wires of the motor using a switch.



Step 6:

Place the boat in a tub of water and switch it on.