

CONSTRUCTING A BI-CARB AND VINEGAR POWERED CAR

Car Building Instructions



An instructional video on how to construct the model car can be found at:
https://video.deakin.edu.au/media/t/0_fshybdxq

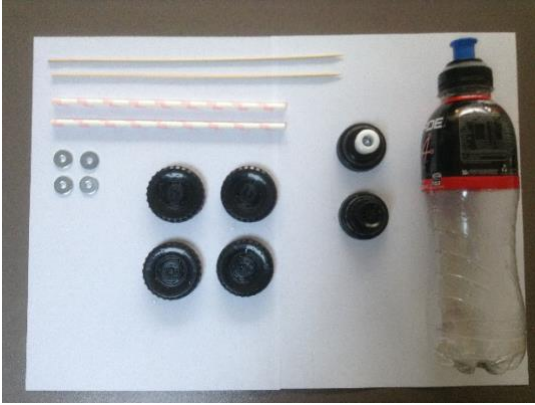
Instructions for the construction of the bi-carb and vinegar powered model car are as follows:

MATERIALS	TOOLS
650ml Litre Powerade bottle Different nozzles (must fit Powerade) Drinking straws Bamboo skewers skewers) Toy truck wheels (multiple size variations) Extra paper and/or cardboard for shape variations Bicarb Soda	Ruler or measuring tape Scissors Hot glue gun Extra hot glue gun glue Safety glasses Rubber/latex gloves

Procedure

Materials:

As listed in table above*



Tools:

As listed in table above*



Safety Equipment:

As listed in table above*



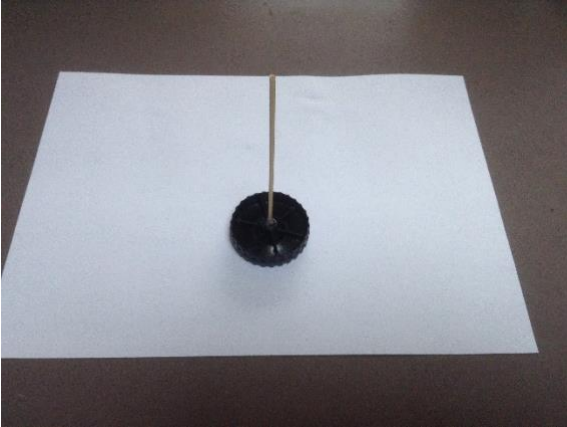
Making and Assembling the first stage of the car:

1. Using ruler and scissors, measure and cut 2 skewers down to 12.5cm in length
2. Using ruler and scissors, measure and cut 2 straws down to 12cm in length

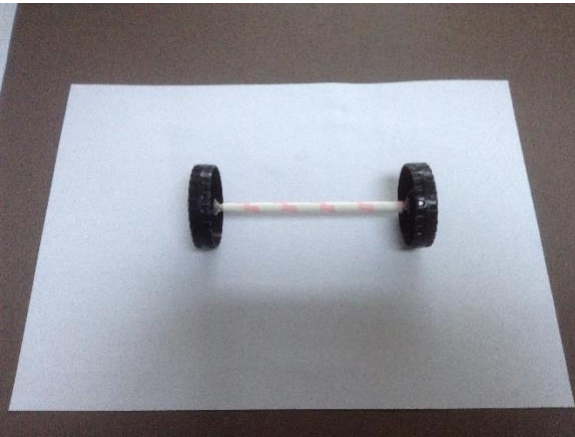


3. Attach one end of a skewer to one of the toy truck wheels, by twisting an end of the skewer into the central hole of the wheel

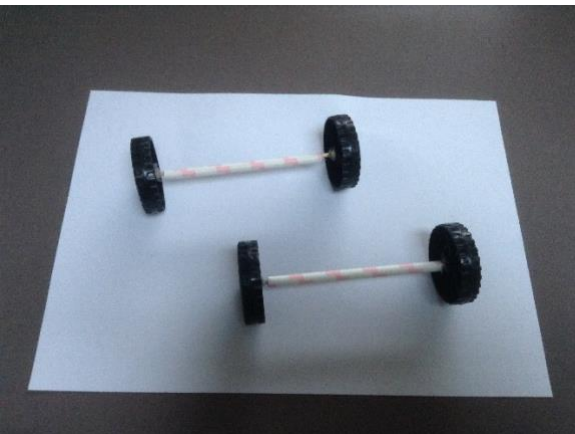
- Using hot glue gun, glue this join to ensure the skewer is fastened to the wheel



- Place straw over the skewer, then attach another wheel to the other side of the skewer, using the same method as the first wheel



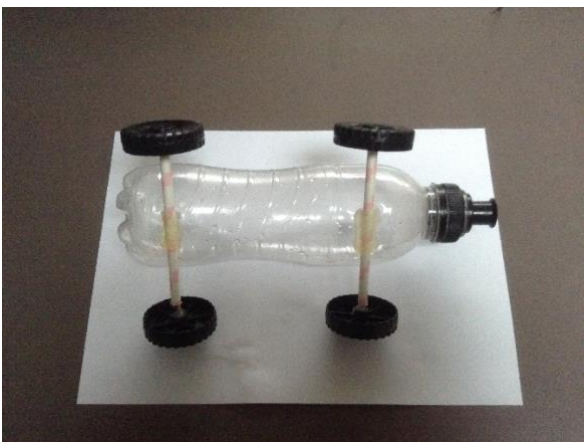
- Complete this same process to construct another axle with wheels (2 in total)



7. Once the 2 axle and wheel sets are complete, attach the first to the Powerade bottle, ensuring that the wheels are pointing straight and aren't on an angle. Make sure that the site of attachment is strong by using plenty of hot glue



8. Repeat this process for the second axle and wheels set. Once again, ensure attachment is strong, and that the axle is centered to the bottle



9. Place car on its wheels, and push roll to make sure that the car rolls in a straight line – if it veers to one side, take the affecting axle off and reattach inline



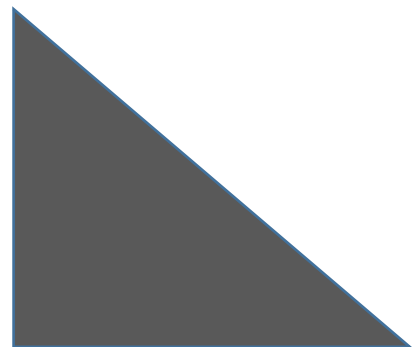
Finish!

Once completed - Car modifications:

1. Change nozzles around by screw on attachment at end (top) of the bottle



2. Attach paper/cardboard to alter shape and aerodynamics
 - Cone – front of car
 - Fin – top or side/s of car



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