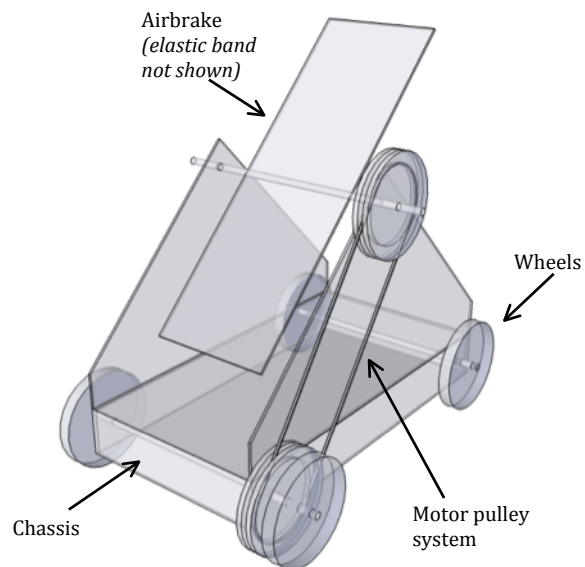


How to build an Airbrake Car

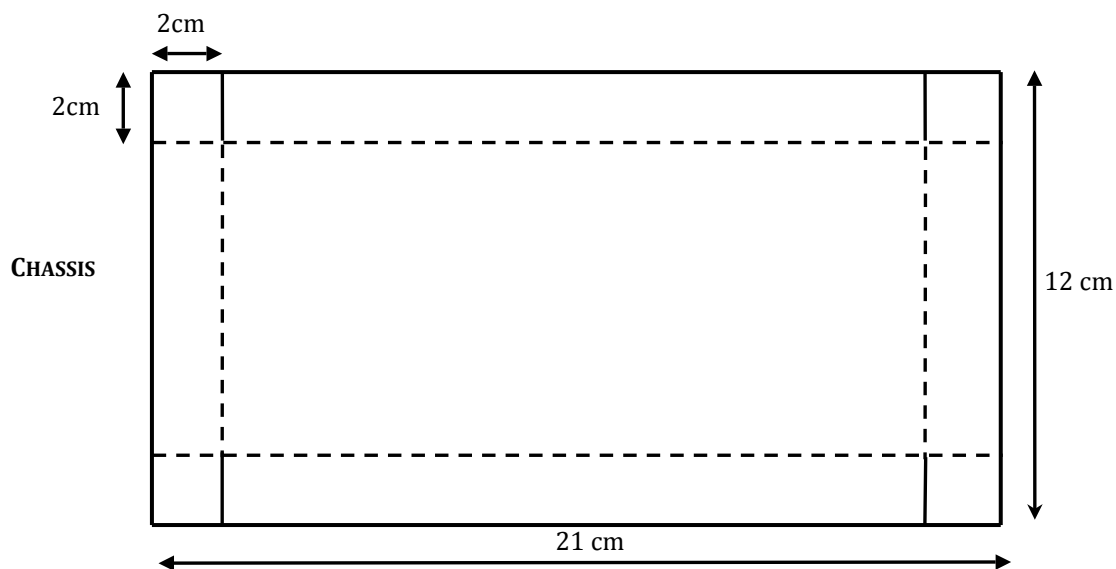
What you will need:

2-3 sheets of A4 card
4 milk bottle tops for wheels
Welding rod/skewers for axels
Elastic band



How to build:

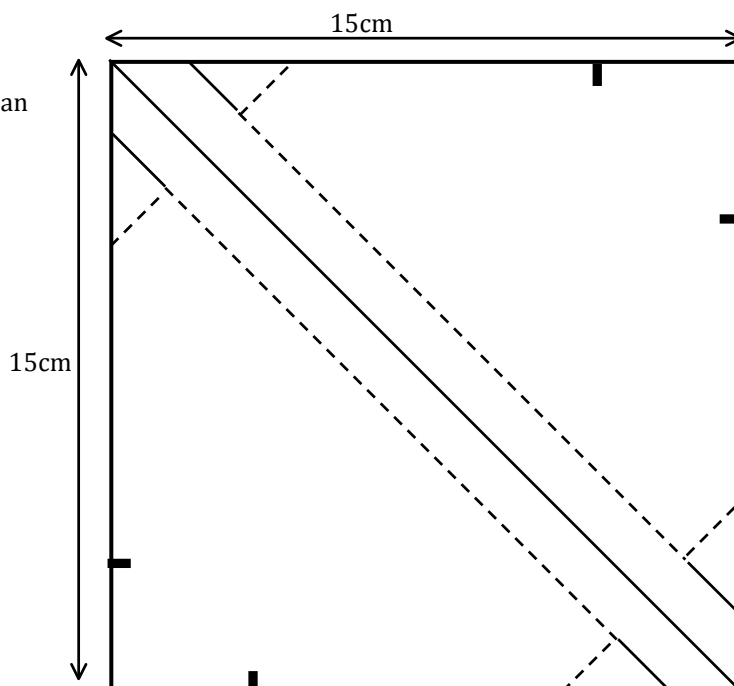
- 1) Construct the chassis for the car by cutting, folding and gluing the following using a sheet of card.



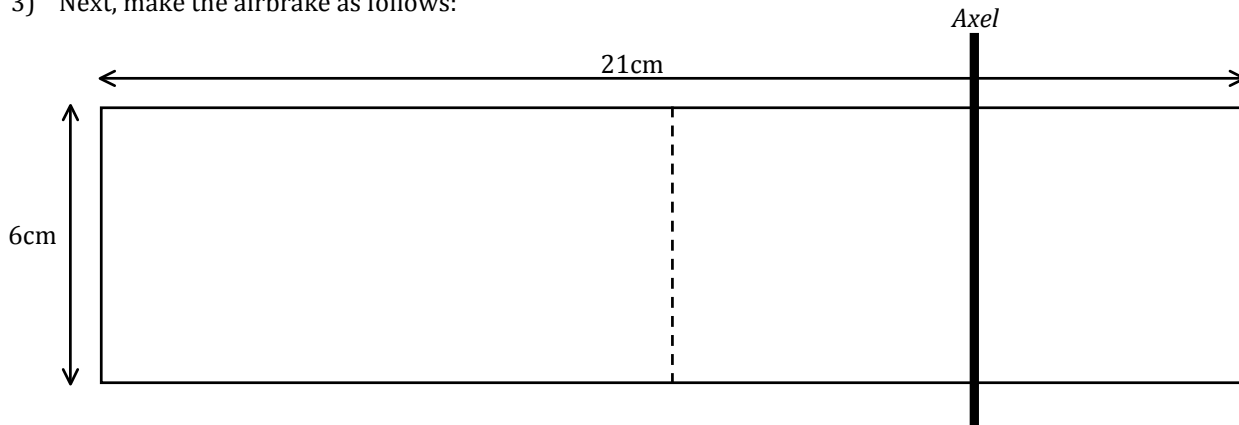
- 2) Next, make the side flanges by cutting and folding the following from card:

This will make the 2 side flanges. By folding along the longest side, a flap of 1.5cm can be made, so that sides can be attached to chassis easily.

Cut notches as shown into the flanges for attaching the elastic band.



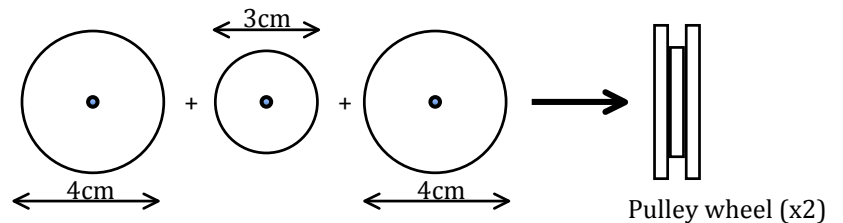
3) Next, make the airbrake as follows:



Cut a sheet of card to the following dimensions, fold in half and glue the welding rod/skewer axel to position as shown between the card.

4) Pulley motor assembly:

Cut the following circles from card. Sandwich the smaller circle in centre between the 2 larger circles and glue in place as shown.



5) Next, assemble as shown in diagram above. Set up airbrake system by looping an elastic band between the notches cut into the side flanges, and looping it around the airbrake so its sides are under the axel and it is flat to the card. Place another elastic band around pulley wheels, as shown in diagram to provide power to the wheels.

Airbrake car in action:

Once assembled, the car will propel itself along the floor when the airbrake's elastic band is wound up by turning the airbrake. When released, the elastic band will unfurl, by spinning the airbrake, and will cause the car to move as the sail movement forces itself through the air.