

MANUFACTURING ACTIVITY

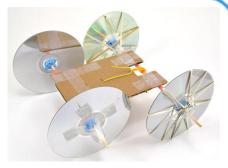


Building a rubber band car

Materials

- rubber bands
- cardboard
- drinking straws
- CDs
- wooden skewers
- paperclips
- sticky tape
- scissors

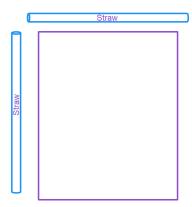
sponges (Blu Tack can be used as an alternative)



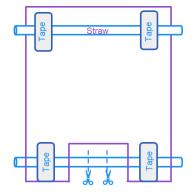
Original Source: Sciencebuddies.org

Instructions

 Using your straws as a measuring guide, cut a rectangular piece of cardboard so that it is slightly narrower than the length of a straw and longer than one straw.



- 2. Cut a rectangular notch in the middle of one end of the cardboard approximately 2cm x 2cm.
- 3. At each end of the piece of cardboard, tape a straw. Make sure they are parallel to each other. This is there the wheels of the car will join to.
- 4. Cut off the middle of the straw that is exposed in the notch. This is where a rubber band will wrap around a skewer without the straw in the way.





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- 5. Slide a wooden skewer through both straws, these will act as the car's axles.
- 6. Cut out 4 small squares from the sponge and press them onto each end of both the skewers.
- 7. Attach 4 CDs to the sponge squares by pushing the sponge and skewer end through the hole in the middle of the CD and tape them down to secure them in place. The CD's are the cars wheels.
- 8. Test the wheels to make sure they roll smoothly and don't fall off. Make any adjustments if there is a problem.
- 9. Loop a rubber band in on itself to tie it to the exposed part of the back skewer (where you cut a notch out of the cardboard.)
- 10. Tape the rubber band down to prevent it from slipping. The rubber band should rotate with the rest of the skewer axle and wheels.
- Cut a small slot in the middle of the cardboard.
- 12. Straighten out half of the paperclip and hook the non-straightened end through the slot in the cardboard so it pushes through to the underside of the car. You can unfold more of the paperclip if the straightened side doesn't reach the back notch of the car where the rubber band is.
- 13. Create a hook on the end of the paperclip on the top side of the car.
- 14. Hook the free end of the rubber band to the paperclip. Make sure the hook is long enough so the rubber band can't accidentally come off it.
- 15. Fold what's left of the paper clip on the underside of the car so it lays flat and tape it to the underside to secure in place.
- 16. Now when you pull back on the car the rubber band should tighten as the wheels turn, let go and watch your car fly!

