Cambridge University Engineering Department

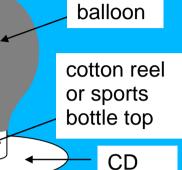


Try this at home! Balloon Hovercraft



KIT LIST

Old CD or DVD Cotton reel or sports drink bottle top Balloon Glue Thin card (if needed)



CONSTRUCTION

- Carefully glue the cotton reel or bottle top over the hole in the centre of the CD. The glue must NOT cover the hole in the CD.
- 2. Inflate the balloon and twist the end to stop air escaping.
- 3. Stretch the end of the balloon over the cotton reel or bottle top.
- 4. Now you're ready to test on a flat smooth surface.

TESTING

5. Carefully untwist the balloon and give the hovercraft a gentle push. How far does it travel?

PROBLEMS TO THINK ABOUT

The success of your hovercraft depends on making the FRICTION force between the hovercraft and the ground as small as possible.

- Which side of the CD should touch the ground?
- How do you stop the balloon from flopping sideways and dragging along the ground? Try adding a card collar around the neck of the balloon.

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