

Make A CD Hovercraft

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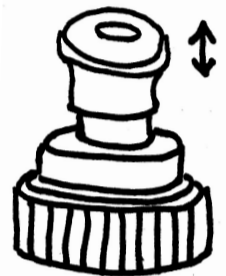
Hovercrafts float on a cushion of air. This CD hovercraft has a small hole in the center that will force air downward when it escapes from the balloon. This air flow creates an opposite force upwards which lifts the hovercraft off the ground.

The CD spreads out this force evenly along its bottom reducing the amount of friction between the CD and the smooth surface of a table top, kitchen counter, or smooth floor.

MATERIALS:

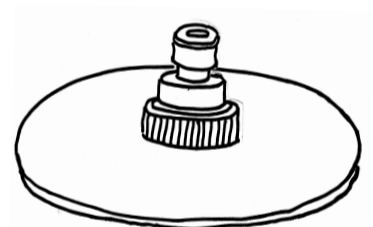
- A CD, or DVD, you no longer use.
- Permanent Markers, Stickers.
- A pop-up plastic lid* (see illustration)
- Hot glue gun and glue sticks (Use with adult supervision.)
- A 10" Balloon

**Pop-up lids are getting harder to find in local stores however, they are currently sold www.amazon.com and www.berlinpackaging.com*



DIRECTIONS:

1. Decorate the shiny side of the CD, or DVD, using permanent markers and/or stickers.
2. Hot glue the pop-up plastic lid over the hole in the CD/DVD. Make sure there are no breaks in the glue that might cause air to escape. Patch any holes with more hot glue applied to the outside joint of the lid and surface of the CD/DVD.
3. Make sure the pop-up lid is closed.
4. Blow up the balloon and slip its neck over the top of the pop-up lid without letting any air escape. (You may want to ask another person to pinch the top of the balloon's neck as you stretch the bottom over the lid.)
5. Place your hovercraft on a smooth, dry surface and pull up on the pop-up lid.
6. Your hovercraft will float on a cushion of air released from the balloon.



INVESTIGATE:

- **Please wear safety glasses when experimenting.**
- How will different amounts of air in the balloon affect how long the hovercraft hovers?
- Test the hovercraft on different surfaces. Which type of surface does the hovercraft work best on?
- Can you improve upon this hovercraft design? Think about features of this hovercraft you can change, such as the materials it is made out of, the opening size of the lid, the hovercraft's shape, or its size. (Tip: Foam board cut into different shapes may work well instead of a CD or DVD.)
- What modifications make the hovercraft hover even better?